Bridle Gate Project

SCH# 2022120683

Draft Revised Environmental Impact Report

Prepared for

The City of Brentwood

THE CITY OF BRENTWOOD

HERITAGE • VISION • OPPORTUNITY

May 2023

Prepared by

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1501 Sports Drive, Suite A, Sacramento, CA 95834

Bridle Gate Project
Draft Revised Environmental Impact Report

SCH# 2022120683

Lead Agency

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1. Introduction

1. INTRODUCTION

1.1 TYPE AND PURPOSE OF THE EIR

The Bridle Gate Project Revised Environmental Impact Report (REIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970, Public Resources Code (PRC) Sections 21000-21177, as amended, and the Guidelines for Implementation of CEQA, California Code of Regulations (CCR), Title 14, Sections 15000-15387 (CEQA Guidelines). The City of Brentwood is the lead agency for the environmental review of the Bridle Gate Project (proposed project) evaluated herein and has the principal responsibility for approving the project. As required by Section 15121 of the CEQA Guidelines, this REIR will (a) inform public agency decision-makers, and the public generally, of the significant environmental effects of the project, (b) identify possible ways to minimize the significant adverse environmental effects of the project, and (c) describe reasonable and feasible project alternatives which reduce environmental effects. The public agency shall consider the information in the REIR along with other information that may be presented to the agency.

As provided in the CEQA Guidelines Section 15021, public agencies are charged with the duty to avoid or minimize environmental damage where feasible. The public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social issues. CEQA requires the preparation of an EIR prior to approving any discretionary project that may have a significant effect on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the proposed project, the City has determined that the proposed development is a *project* within the definition of CEQA, which has the potential for resulting in significant environmental effects.

As the lead agency for this project, the City of Brentwood will consider the information in the REIR, along with other available information in deciding whether to approve the application. The basic requirements for an EIR include discussions of the environmental setting, environmental impacts, mitigation measures, alternatives, growth-inducing impacts, and cumulative impacts.

1.2 BACKGROUND

The CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This REIR has been prepared as a *project-level EIR* pursuant to CEQA Guidelines Section 15161, which is an analysis that examines the environmental impacts of a specific development project. A *project-level EIR* focuses primarily on the changes in the environment that would result from the development of the project, and examines all phases of the project, including planning, construction, and operation. As discussed in further detail below, the Bridle Gate Project has been previously proposed and evaluated in past EIRs. A new project-level EIR has been prepared for the currently proposed project. In order to differentiate the current analysis from previous EIRs, although an REIR is not a technical CEQA term, the current analysis has been labeled as such in order to further denote that the Bridle Gate Project has been revised and is now subject to new analysis. However, the analysis herein may use information from previous EIRs, as appropriate.

On June 6, 2006, the City of Brentwood Planning Commission approved the first version of the Bridle Gate subdivision map. Commensurate with that approval, an Initial Study/Mitigated Negative Declaration was adopted, which identified that all impacts resulting from the project could be reduced to a less-than-significant level with implementation of mitigation measures. The 2006 Initial Study/Mitigated Negative Declaration required City approval of a General Plan Amendment to modify the text of the existing Special Planning Area E land use designation, a Rezone of the project site to establish standards for the Planned Development No. 36 (PD-36) zoning designation, and a Tentative Subdivision Map. The Tentative Subdivision Map, however, was never recorded and ultimately expired.

A revised version of the Bridle Gate Project was later proposed (the 2020 Bridle Gate Project), and, due to substantial changes to the project, an EIR was prepared in 2020. The 2020 EIR included the following entitlements:

- A General Plan amendment to (1) change the land use designation for the northwesterly 13.98 acres of the site from Regional Commercial (RC) to Planned Development (PD) to allow for up to 258 multi-family units, (2) change the land use designation for 4.3 acres of the site south of the Sand Creek Road alignment to Park (P) to allow for two public parks associated with the single-family units, and (3) revise the planned alignment of the proposed San Jose Avenue extension in the Circulation Element;
- A rezone of the site to modify the existing development standards for PD-36 to accommodate the single-family and multi-family portions of the site;
- A vesting tentative subdivision map to subdivide the approximately 137.3-acre project site into 4.3 acres for public parks, 13.98 acres for up to 258 multi-family units, approximately 28.35 acres for permanent open space, 252 single-family units, an 11.35-acre elementary school site (or alternatively, a residential overlay that could accommodate an additional 63 single-family units if the school was not constructed), and 19.59 acres for future commercial development;
- A design review for the single-family and multi-family portions of the site; and
- A Development Agreement between the City of Brentwood and the project applicant.

The project components analyzed in the 2020 EIR included the development of 252 single-family residences and the dedication of two parcels to the City of Brentwood for use as public parks. The project also included an 11.35-acre parcel to be sold to the Brentwood Union School District for development as an elementary school or, alternatively in the event the school construction did not proceed, development with an additional 63 single-family residences. As of the date the Planning Commission considered the proposed project, the project included future development of a 258-unit apartment complex, as well as one parcel designated for future Regional Commercial development. However, subsequent to the Planning Commission hearing on the proposed project, the applicant notified the City that it wished to modify the project to no longer include the 258-unit apartment complex. The applicant ultimately submitted a revised proposed vesting tentative subdivision map on January 29, 2021, formally amending the application for the 2020 Bridle Gate Project. As a result of the project amendment, the requested general plan amendment, rezoning and design review requests were also modified to eliminate the multi-family component. The City Council denied the modified project on March 9, 2021, and the EIR was not certified.

A third application for the project was submitted to the City of Brentwood in late 2021 and was deemed complete in June 2022. The project components, which are described in further detail below, have been altered from those proposed in 2020. The City determined that, similar to the prior project, an REIR is the appropriate CEQA document for the current version of the Bridle Gate Project.

1.3 KNOWN RESPONSIBLE AND TRUSTEE AGENCIES

"Responsible agency" means a public agency that proposes to carry out or approve a project for which a lead agency is preparing or has prepared an EIR or Negative Declaration. For the purpose of CEQA, the term responsible agency includes all public agencies other than the lead agency that have discretionary approval power over the project or an aspect of the project. The following agencies are identified as potential responsible agencies:

- Bay Area Air Quality Management District (BAAQMD);
- California Department of Transportation (Caltrans);
- Central Valley Regional Water Quality Control Board (RWQCB);
- Contra Costa Transportation Authority (CCTA); and
- East Contra Costa County Habitat Conservancy.

"Trustee agency" means a State agency having jurisdiction by law over natural resources affected by a project, which are held in trust for the people of the State of California. The only known possible trustee agency is the California Department of Fish and Wildlife (CDFW).

Although not subject to California law, and, thus, outside the definitions of responsible agency or trustee agency, the U.S. Army Corps of Engineers (USACE) and U.S. Fish and Wildlife Service (USFWS) will also be called upon to grant approvals under federal law necessary for the development of the project site. These agencies do not have duties under CEQA, but, rather, are governed by a variety of federal statutes, such as the Clean Water Act, which governs the dredging and filling of waters of the U.S. (e.g., intrastate wetlands), and the Endangered Species Act, which requires the USACE to consult with the USFWS as part of the review process for any wetland or fill permits that may be required.

1.4 PROJECT SUMMARY

The project site consists of two parcels totaling approximately 126.86 acres in the City of Brentwood and is identified by the Contra Costa County Assessor's Parcel Numbers (APNs) 019-082-009 and 019-082-010.[1]

The project site is generally bounded by Old Sand Creek Road to the north, State Route (SR) 4 to the east, a single-family residential development (Brentwood Hills) to the south, and the edge of the Brentwood Planning Area and the City of Antioch's city limits to the west. A small segment of existing San Jose Avenue bounds the project site at the farthest southeastern corner. The western terminus of Sand Creek Road, constructed as part of the interchange with SR 4, is located adjacent to the eastern site boundary.

According to the City's General Plan, the project site is designated RC north of the Sand Creek Road alignment, Residential-Low Density (R-LD) south of the Sand Creek Road alignment, Permanent Open Space (P-OS) along the southwest boundary of the site, and P. The site is

[1] The project site does not include the City-owned Sand Creek Road right-of-way.

zoned PD-36 and includes development standards for a mix of uses in accordance with a previous land use entitlement granted by the City Council in 2006. Sand Creek flows west to east through the northern portion of the project site and supports both native riparian vegetation and a variety of landscaped or planted ornamentals. The remainder of the project site is currently vacant and covered with grasses and weedy vegetation. Approximately 4.59 acres of seasonal wetlands have been delineated on-site.

Implementation of the proposed project would require approval of a Vesting Tentative Subdivision Map (VTSM) to develop 286 single-family residences, as well as associated improvements within the project site. The proposed project would also require approval of Design Review for the home designs, landscaping, and associated improvements. It should be noted that correspondence from City staff has indicated that a Rezone to amend PD-36 may be required. The applicant disagrees. In order to fully evaluate the proposed project, the REIR will address issues with respect to any potential rezoning.

The proposed project would include subdivision of the site for development of 286 single-family residences, as well as associated improvements within the project site, including parks, open space, stormwater detention and treatment areas, utility connections, and construction of an internal roadway network on approximately 92.96 acres. The 33.9 acres of land located north of the future Sand Creek Road extension would remain undeveloped.

The single-family residential area would be developed with lot sizes ranging from 4,500 to 15,863 square feet (sf), with one- to three-story residences ranging from 1,592 sf to 2,392 sf. Overall, a total of 61.961 acres of the project site would be developed with residential uses. Therefore, buildout of the single-family residential development would result in a density of approximately 4.62 dwelling units per acre (du/ac).[2] As outlined in the City's General Plan, the foregoing density calculation is based only on the portions of the site dedicated to residential use.

Two parcels totaling six acres (northwest portion of the site) and 3.39 acres (southeast portion of the site), respectively, would be dedicated to the City of Brentwood for use as public parks. The parks would provide recreational amenities for residents of the proposed single-family subdivision. Landscaping elements would be provided throughout the proposed park areas and all other developed portions of the site consistent with City requirements.

As discussed previously, Sand Creek currently flows from west to east through the northern portion of the proposed project site. However, the 33.9 acres of land located north of the future Sand Creek Road extension (see below for road extension details) within the project site, which includes the majority of the portion of Sand Creek located within the site, are not proposed to be developed in this application. The remainder of the portion of Sand Creek located within the project site would be located within the proposed six-acre park. An additional 25 acres of permanent open space would be located within the southwestern portion of the site, consistent with the General Plan.

The proposed project would include construction of new internal roadways and the extension of San Jose Avenue to the west. It should be noted that a separate City-initiated capital improvement project will extend two lanes of Sand Creek Road from the westerly existing terminus of SR 4 to Heidorn Ranch Road to the northwest, with one lane running in each direction. The future Sand Creek Road extension will extend along the northern boundary of the proposed single-family

[2] 61.961 acres/286 single-family homes = 4.62 dwelling units per acre.

residential portion of the project and connect to one of the new internal roadways to provide site access. Site access would also be provided by the proposed extension of San Jose Avenue. The proposed internal circulation system would be located throughout the proposed single-family residential subdivision, and would be designed to meet current City standards and would include sidewalks on both sides. Pedestrian access would be provided in the form of sidewalks and trails throughout the proposed development, in conformance with City standards.

The proposed project would include water, sewer, and stormwater utility improvements. Stormwater draining off impervious surfaces within the site would be directed to two bio-retention basins located in the northwestern portion of the site, southeast of the proposed six-acre park (Parcel B), and along the southeast boundary of the site (Parcel E), respectively. Water and sewer service for the proposed project would be provided by the City of Brentwood.

A fully detailed project description is provided in Chapter 3, Project Description, of this REIR.

1.5 EIR PROCESS

The EIR process begins with the decision by the lead agency to prepare an EIR, either during a preliminary review of a project or at the conclusion of an Initial Study. Once the decision is made to prepare an EIR, the lead agency sends a Notice of Preparation (NOP) to appropriate government agencies and, when required, to the State Clearinghouse (SCH) in the Office of Planning and Research (OPR), which will ensure that responsible and trustee State agencies reply within the required time. The SCH assigns an identification number to the project, which then becomes the identification number for all subsequent environmental documents analyzing the project. Commenting agencies have 30 days to respond to the NOP and provide information regarding alternatives and mitigation measures they wish to have explored in the Draft EIR and to provide notification regarding whether the agency will be a responsible agency or a trustee agency for the project. In this case, an NOP (see Appendix A) was prepared for the proposed project and circulated from December 29, 2022 to January 30, 2023. A public scoping meeting was held on January 17, 2023 for the purpose of informing the public and receiving comments on the scope of the environmental analysis to be prepared for the proposed project. See Section 1.8 below for a summary of comments received on the NOP.

Given the changes from the 2020 Bridle Gate Project to the currently proposed project, the details of which are discussed above in the Background section of this chapter, the City's preparation of a REIR to evaluate the proposed project in accordance with the provisions of CEQA ensures full public disclosure of the environmental effects of the project and facilitates public review. As soon as the Draft REIR is completed, a Notice of Completion will be filed with the SCH and a public Notice of Availability (NOA) will be published to inform interested parties that a Draft REIR is available for agency and public review. In addition, the NOA provides information regarding the location of copies of the Draft REIR available for public review and any public meetings or hearings that are scheduled. The Draft REIR will be circulated for a period of 45 days, during which time reviewers may make comments. The lead agency must respond to comments raising significant environmental issues in writing, describing the disposition of the significant environmental issues raised and explaining in detail the reasons for not accepting any specific comments concerning significant environmental issues. If significant new information, as defined in CEQA Guidelines Section 15088.5, is added to the REIR after public notice of availability is given but before certification of the REIR, the revised REIR or affected chapters must be recirculated for an additional public review period with related comments and responses.

A Final REIR will be prepared, containing comments and responses to comments on the Draft REIR. The Final REIR will also include any changes to the Draft REIR made as a result of public comment. Before approving the project, the lead agency is required to certify that the Final REIR has been completed in compliance with CEQA, and that the Final REIR has been presented to the decision-making body of the lead agency, which has reviewed and considered the REIR. The lead agency is also required to certify that the Final REIR reflects the lead agency's independent judgment and analysis.

The findings prepared by the lead agency must be based on substantial evidence in the administrative record and must include an explanation that bridges the gap between evidence in the record and the conclusions required by CEQA. If the decision-making body elects to proceed with a project that would have unavoidable significant impacts, then a Statement of Overriding Considerations explaining the decision to balance the benefits of the project against unavoidable environmental impacts must be prepared.

1.6 SCOPE OF THE REIR

This REIR, together with the appendices, constitutes a project-level analysis for the Bridle Gate Project and, pursuant to CEQA Guidelines Section 15161, covers "all phases of the project including planning, construction, and operation." State CEQA Guidelines Section 15126.2(a) states, in pertinent part:

> An EIR shall identify and focus on the significant effects of the proposed project on the environment. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced.

Pursuant to the CEQA Guidelines, the scope of this REIR addresses specific issues and concerns identified as potentially significant in the Initial Study prepared for the proposed project.

Environmental Issues Addressed in this REIR

The sections of the CEQA Guidelines Appendix G Checklist identified for study in this REIR include the following:

- Air Quality, Greenhouse Gas Emissions, and Energy;
- Biological Resources;
- Hazards and Hazardous Materials;
- Noise; and
- Transportation.

The evaluation of effects is presented on a resource-by-resource basis in Chapters 4.1 through 4.5 of the REIR. Each chapter is divided into the following four sections: Introduction, Existing Environmental Setting, Regulatory Context, and Impacts and Mitigation Measures. Impacts that are determined to be significant in Chapters 4.1 through 4.5, and for which feasible mitigation measures are not available to reduce those impacts to a less-than-significant level, are identified as *significant and unavoidable*. Chapter 5 will include abbreviated discussions of impacts determined not to be significant in the Initial Study prepared for the proposed project as well as the REIR. Chapter 6 presents a discussion of growth-inducing impacts, a summary of cumulative impacts, and significant irreversible environmental changes associated with the project, as well

as significant unavoidable environmental changes associated with the project. Alternatives to the proposed project are discussed in Chapter 7 of the REIR.

1.7 NOTICE OF PREPARATION AND SCOPING

In accordance with CEQA Guidelines Section 15082, an NOP, included as Appendix A, was circulated to the public, local, State and federal agencies, and other known interested parties for a 30-day public and agency review period. The purpose of the NOP was to provide notification that an REIR for the proposed project was being prepared and to solicit public input on the scope and content of the document. In addition, pursuant to CEQA Guidelines Section 15082, the City of Brentwood held an NOP scoping meeting during the 30-day review period, on January 17, 2023, for the purpose of receiving comments on the scope of the environmental analysis to be prepared for the proposed project. Agencies and members of the public were invited to attend and provide input on the scope of the REIR. Several comment letters were received (see Appendix B to this REIR). All comments were taken into consideration during the preparation of this Draft REIR. A summary of the NOP comments received is provided in Section 1.8 below.

1.8 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

During the NOP public review period from December 29, 2022 to January 30, 2023, the City of Brentwood received seven comment letters. In addition, verbal comments were received at the public scoping meeting held on January 17, 2022. A copy of each letter submitted, as well as a summary of verbal comments from the public comment meeting, are provided in Appendix B of this REIR. The following letters and verbal comments were received regarding the NOP:

Public Agencies and Groups

- Central Valley Regional Water Quality Control Board – Peter Minkel;
- Chevron Corporation – Jay A. Cutshaw;
- Contra Costa Resource Conservation District – Derek Evan;
- Contra Costa Resource Conservation District – Victoria Wolfolk;
- Department of Toxic Substances Control – Gavin McCreary;
- Department of Transportation – Mark Leong; and
- Earthjustice – Matt Vespa and Rebecca Barker.

Verbal Comments from Individuals at the NOP Scoping Meeting

- Danny Dohrmann;
- Kristil Parrish;
- Sandra Meyers; and
- Susan Harper.

The following list, categorized by issue, summarizes the concerns brought forth in the comment letters and verbal comments received on the scope of the REIR:

REIR chapter(s)	Concerns related to
Air Quality, Greenhouse Gas Emissions, and Energy	• Use of approaches to determine the significance of project greenhouse gas emissions impacts that involve comparisons against "business-as-usual" emissions or a per capita emissions metric. • Use of natural gas in the proposed buildings.
Biological Resources	• Impacts upon native plants in the proposed parklands.

Hazards and Hazardous Materials	• The presence of capped oil wells on-site. • The potential for historic or future activities on or near the project site to result in the release of hazardous wastes/substances on the project site. • The presence of aerially-deposited lead in on-site soils. • Proper sampling of imported soils to ensure the fill is free of contamination. • Proper investigation of the potential for the historic use of organochlorine pesticides on-site.
Transportation	• Impacts of increased traffic in the project vicinity. • Impacts to State right-of-way from construction-related temporary site access points. • Coordination with Caltrans to develop a Transportation Management Plan.

Concerns related to the issues above are addressed in this REIR.

1.9 DRAFT REIR AND PUBLIC REVIEW

This Draft REIR is being circulated for public review and comment for a period of 45 days. During this period, the general public, organizations, and agencies can submit comments to the Lead Agency on the Draft REIR's accuracy and completeness. Release of the Draft REIR marks the beginning of a 45-day public review period pursuant to CEQA Guidelines Section 15105. The public can review the Draft REIR at the City's website at:

https://www.brentwoodca.gov/gov/cd/planning/ceqa.asp

Comments must be submitted in written form. All comments or questions regarding the Draft REIR should be addressed to:

Erik Nolthenius, Planning Manager
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150 City Park Way
Brentwood, CA 94513
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1.10 ORGANIZATION OF THE DRAFT REIR

The REIR is organized into the following sections:

Chapter 1 – Introduction

Provides an introduction and overview describing the intended use of the Draft REIR and the review and certification process, as well as summaries of the chapters included in the Draft REIR and summaries of the issues and concerns received from the public and public agencies during the NOP review period.

Chapter 2 – Executive Summary

Summarizes the elements of the project and the environmental impacts that would result from implementation of the proposed project, describes proposed mitigation measures, and indicates the level of significance of impacts after mitigation.

Chapter 3 – Project Description
Provides a detailed description of the proposed project, including the project's location, background information, objectives, and technical characteristics.

Chapter 4 – Environmental Setting, Impacts, and Mitigation
Contains a project-level and cumulative analysis of environmental issue areas associated with the proposed project. The section for each environmental issue contains an introduction and description of the setting of the project site, identifies impacts, and recommends appropriate mitigation measures.

Chapter 5 – Effects Not Found to be Significant
Section 15128 of the CEQA Guidelines states that an EIR shall contain a brief statement indicating the reasons that various possible significant effects of a project were determined not to be significant and were, therefore, not discussed in detail in the REIR. Accordingly, the Effects Not Found to be Significant chapter of the REIR will include abbreviated discussions of impacts determined not to be significant in an Initial Study prepared for the proposed project.

Chapter 6 – Statutorily Required Sections
The Statutorily Required Sections chapter of the REIR provides discussions required by CEQA regarding impacts that would result from the proposed project, including a summary of cumulative impacts, potential growth-inducing impacts, significant and unavoidable impacts, and significant irreversible changes to the environment.

Chapter 7 – Alternatives Analysis
The Alternatives Analysis chapter of the REIR describes and evaluates the alternatives to the proposed project. It should be noted that the alternatives will be analyzed at a level of detail less than that of the proposed project; however, the analyses will include sufficient detail to allow for a meaningful comparison of impacts.

Chapter 8 – REIR Authors and Persons Consulted
The REIR Authors and Persons Consulted chapter of the REIR lists REIR and technical report authors who provided technical assistance in the preparation and review of the REIR, as well as a list of individuals consulted for the purpose of gathering data for inclusion in the REIR.

Chapter 9 – References
The References chapter of the REIR provides bibliographic information for all references and resources cited.

Appendices
The Appendices include the NOP, comments received during the NOP comment period, the Initial Study prepared for the proposed project, and technical reports prepared for the proposed project.

2. Executive Summary

2. EXECUTIVE SUMMARY

2.1 INTRODUCTION

The Executive Summary chapter of the REIR provides an overview of the proposed project (see Chapter 3, Project Description, for further details) and provides a table summary of the conclusions of the environmental analysis provided in Chapters 4.1 through 4.5. This chapter also summarizes the alternatives to the proposed project that are described in Chapter 7, Alternatives Analysis, and identifies the Environmentally Superior Alternative. Table 2-1, found at the end of this chapter, provides a summary of the environmental effects of the proposed project, as identified in each chapter of this REIR and the Initial Study prepared for the proposed project (see Appendix C). Table 2-1 also contains the potential environmental impacts associated with the proposed project, the significance of the impacts, the proposed mitigation measures for the impacts, and the significance of the impacts after implementation of the mitigation measures.

2.2 SUMMARY DESCRIPTION OF THE PROPOSED PROJECT

The project site consists of two parcels totaling approximately 126.86 acres in the City of Brentwood and is identified by the Contra Costa County Assessor's Parcel Numbers (APN) 019-082-009 and 019-082-010.[1]

The project site is generally bounded by Old Sand Creek Road to the north, State Route (SR) 4 to the east, a single-family residential development (Brentwood Hills) to the south, and the edge of the Brentwood Planning Area and the City of Antioch's city limits to the west. A small segment of existing San Jose Avenue bounds the project site at its farthest southeastern corner. The western terminus of Sand Creek Road, constructed as part of the interchange with SR 4, is located adjacent to the eastern site boundary.

According to the City's General Plan, the project site is designated Regional Commercial (RC) north of the Sand Creek Road alignment, Residential-Low Density (R-LD) south of the Sand Creek Road alignment, Permanent Open Space (P-OS) along the southwest boundary of the site, and Park (P). The site is zoned Planned Development No. 36 (PD-36) and Sections 17.486.020 through 17.486.007 of the Brentwood Municipal Code sets forth development standards for a mix of uses in accordance with a previous land use entitlement granted by the City Council in 2006. Sand Creek flows west to east through the northern portion of the project site and supports both native riparian vegetation and a variety of landscaped or planted ornamentals. The remainder of the project site is currently vacant and covered with grasses and weedy vegetation. Approximately 4.59 acres of seasonal wetlands have been delineated on-site.

Implementation of the proposed project would require approval of a Vesting Tentative Subdivision Map (VTSM) to develop 286 single-family residences, as well as associated improvements within the project site. The proposed project would also require approval of Design Review. It should be noted that correspondence from City staff has indicated that a Rezone to amend PD-36 may be required. The applicant disagrees. In order to fully evaluate the proposed project, the REIR will address issues with respect to any potential rezoning.

[1] The project site does not include the City-owned Sand Creek Road right-of-way.

The proposed project would include subdivision of the site for development of 286 single-family residences, as well as associated improvements within the project site, including parks, open space, stormwater detention and treatment areas, utility connections, and construction of an internal roadway network on approximately 92.96 acres. The 33.9 acres of land located north of the future Sand Creek Road extension is not proposed to be developed in this application.

The single-family residential area would be developed with lot sizes ranging from 4,500 to 15,863 square feet (sf), with one- to three-story residences ranging from 1,592 sf to 2,392 sf. Overall, a total of 61.961 acres of the project site would be developed with residential uses. Therefore, buildout of the single-family residential development would result in a density of approximately 4.62 dwelling units per acre (du/ac).[2]

Two parcels totaling six acres (northwest portion of the site) and 3.39 acres (southeast portion of the site), respectively, would be dedicated to the City of Brentwood for use as public parks. The parks would provide recreational amenities for residents of the proposed single-family subdivision. Landscaping elements would be provided throughout the proposed park areas and all other developed portions of the site consistent with City requirements. An additional 25 acres of permanent open space would be located within the southwestern portion of the site.

As discussed previously, Sand Creek currently flows from west to east through the northern portion of the proposed project site. However, the 33.9 acres of land located north of the future Sand Creek Road extension (see below for road extension details) within the project site, which includes the majority of the portion of Sand Creek located within the site, would remain undeveloped. The remainder of the portion of Sand Creek located within the project site would be located within the proposed six-acre park.

The proposed project would include construction of new internal roadways and the extension of San Jose Avenue to the west. It should be noted that a separate City-initiated capital improvement project will extend Sand Creek Road from the westerly existing terminus of SR 4 to Heidorn Ranch Road to the northwest. The future Sand Creek Road extension will extend along the northern boundary of the proposed single-family residential portion of the project and connect to one of the new internal roadways to provide site access. Site access would also be provided by the proposed extension of San Jose Avenue. The proposed internal circulation system would be located throughout the proposed single-family residential subdivision, and would be designed to meet current City standards and would include sidewalks on both sides. Pedestrian access would be provided in the form of sidewalks and trails throughout the proposed development, in conformance with City standards.

The proposed project would include water, sewer, and stormwater utility improvements. Stormwater draining off impervious surfaces within the site would be directed to two bio-retention basins located in the northwestern portion of the site, southeast of the proposed six-acre park (Parcel B), and along the southeast boundary of the site (Parcel E), respectively. Water and sewer service for the proposed project would be provided by the City of Brentwood.

Please refer to Chapter 3, Project Description, of this REIR for a detailed description of the proposed project and entitlements, as well as a full list of the project objectives.

[2] 286 single-family homes/61.961 acres = 4.62 dwelling units per acre.

2.3 ENVIRONMENTAL IMPACTS AND MITIGATION

Under CEQA, a significant effect on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. Mitigation measures must be implemented as part of the proposed project to reduce potential adverse impacts to a less-than-significant level. Such mitigation measures are noted in this REIR and are found in the following technical chapters: Air Quality, Greenhouse Gas Emissions, and Energy; Biological Resources; Hazards and Hazardous Materials; Noise; and Transportation. The mitigation measures required for the proposed project, as presented in this REIR, will form the basis of the Mitigation Monitoring and Reporting Program.

In Table 2-1, provided at the end of this chapter, a summary of the proposed project's impacts are identified for each technical chapter (Chapters 4.1 through 4.5) of the REIR as well as the Initial Study prepared for the proposed project (see Appendix C). In addition, Table 2-1 includes the level of significance of each impact, any mitigation measures required for each impact, and the resulting level of significance after implementation of mitigation measures for each impact.

2.4 SUMMARY OF PROJECT ALTERNATIVES

The following section presents a summary of the evaluation of the alternatives considered for the proposed project, which include the following:

- No Project (No Build) Alternative;
- Clustered Development Alternative; and
- Reduced Density Alternative.

For a more thorough discussion of project alternatives, please refer to Chapter 7, Alternatives Analysis.

No Project (No Build) Alternative

The No Project (No Build) Alternative assumes that the proposed project site would remain in its current condition and would not be developed. As described in this REIR, the project site consists primarily of undeveloped grassland and weedy vegetation, with Sand Creek flowing west to east through the northern portion of the project site. The City's extension of Sand Creek Road in the project vicinity would move forward consistent with the Sand Creek Roadway Extension Project Initial Study/Mitigated Negative Declaration. The No Project (No Build) Alternative would not meet any of the project objectives and would not meet the overall intent of the General Plan land use designations for the site.

Clustered Development Alternative

The Clustered Development Alternative would be designed to reduce the total amount of proposed development acreage, while still resulting in a residential density within the allowable range presented in the City's General Plan. According to the City's General Plan, the R-LD land use designation permits a density range of 1.1 to five du/ac, with a mid-range of three du/ac. The proposed project is anticipated to result in the development of 286 units on 61.961 acres, which would result in a density of approximately 4.62 du/ac. If 61.961 acres of the project site were to be developed using the mid-range of three du/ac, a total of 186 units would be anticipated. However, in order to cluster the development and increase the amount of open space on-site, while still keeping in the range of allowed density, under the Clustered Development Alternative,

186 units would be built on 37.2 acres, which would result in a density of five du/ac, the maximum allowable density within the R-LD land use designation.

As a result, the Clustered Development Alternative would include an additional 24.76 acres to be designated as permanent open space. The additional permanent open space would be located along the eastern portion of the site to allow for a buffer between the proposed residences and SR 4.

Generally, all other site improvements required under the proposed project would still be developed under the Clustered Development Alternative, and the Alternative would still require a potential Rezone to amend the PD-36 Zoning District, VTSM, and Design Review. In addition, because the Clustered Development Alternative would generally result in similar development of the proposed project, all project objectives would be met.

Reduced Density Alternative

According to the City's General Plan, the R-LD land use designation permits a density range of 1.1 to five du/ac, with a mid-range of three du/ac. The proposed project is anticipated to result in the development of 286 units on 61.961 acres, which would result in a density of approximately 4.62 du/ac. The Reduced Density Alternative would result in the development of single-family residential uses on the same amount of acreage as the proposed project (61.961 acres), at the minimum density allowed for the R-LD land use designation. As a result, the Reduced Density Alternative would develop a total of 68 dwelling units on-site.

Generally, all other site improvements required under the proposed project would still be developed under the Reduced Density Alternative, including the development of 9.39 acres of parks and 25 acres of open space. As such, the Alternative would still require a potential Rezone to amend the PD-36 Zoning District, VTSM, and Design Review.

Because the Reduced Density Alternative would still provide parks and open space in the region, Project Objectives #2 and #3 would be fully met under the Alternative. However, although the Reduced Density Alternative would result in development on-site, because development would be at a reduced density as compared to the proposed project, the Alternative would not maximize development of housing, and Project Objective #1 would only be partially met.

Environmentally Superior Alternative

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. Section 15126.6(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." In this case, the No Project (No Build) Alternative would be considered the environmentally superior alternative, because the project site is assumed to remain in its current condition under the alternative. Consequently, many of the impacts resulting from the proposed project would not occur under the Alternative.

As noted above, the No Project (No Build) Alternative would not meet any of the project objectives. The Clustered Development Alternative would fully meet all of the project objectives. The Reduced Density Alternative would fully meet two of the project objectives and partially meet one of the objectives.

Both the Clustered Development Alternative and the Reduced Density Alternative would result in impacts similar to the proposed project related to three of the five issue areas for which project impacts were identified, and both would result in fewer impacts than the proposed project for the remaining two issue areas. Although both Alternatives would result in similar impacts in comparison to the proposed project, the Clustered Development Alternative would fully meet all of the project objectives, whereas the Reduced Density Alternative would only partially meet Project Objective #1. Thus, the Clustered Development Alternative would be considered the environmentally superior alternative to the proposed project.

2.5 AREAS OF KNOWN CONTROVERSY

Areas of controversy that were identified in NOP comment letters, and are otherwise known for the project area, include the following:

- Adequate evaluation of impacts related to GHG impacts.
- Use of natural gas in the proposed buildings.
- Concerns related to impacts upon native plants in the proposed parklands.
- Concerns related to the potential for historic or future activities on or near the project site to result in the release of hazardous wastes/substances on the project site.
- Impacts of increased traffic in the project vicinity.
- Impacts to State right-of-way from construction-related temporary site access points.

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.1 Air Quality, Greenhouse Gas Emissions, and Energy			
4.1-1 Conflict with or obstruct implementation of the applicable air quality plan during project construction.	LS	*None required.*	N/A
4.1-2 Conflict with or obstruct implementation of the applicable air quality plan during project operation.	LS	*None required.*	N/A
4.1-3 Expose sensitive receptors to substantial pollutant concentrations.	LS	*None required.*	N/A
4.1-4 Result in other emissions (such as those leading to odors) affecting a substantial number of people.	LS	*None required.*	N/A
4.1-5 Result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency.	LS	*None required.*	N/A
4.1-6 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which	LCC	*None required.*	N/A

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Table 2-1
Summary of Impacts and Mitigation Measures

	Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
	exceed quantitative thresholds for ozone precursors).			
4.1-7	**Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.**	CC and S	*4.1-6(a)* *Implement Mitigation Measure 4.5-3.* *4.1-6(b)* *Prior to the approval of project improvement plans, the applicant shall implement the following measure:* • *Consistent with the BAAQMD's Buildings standard a., natural gas shall be prohibited in proposed structures.* *Compliance with the foregoing measure shall be ensured by the City of Brentwood Community Development Department.*	LS
4.1-8	**Result in a cumulatively considerable inefficient or wasteful use of energy or conflict with a State or local plan for renewable energy or energy efficiency.**	LS	*None required.*	N/A
4.2 Biological Resources				
4.2-1	**Impacts to special-status plant species either directly (e.g., threaten to eliminate a plant community) or through substantial habitat modifications.**	LS	*None required.*	N/A
4.2-2	**Impacts to California tiger salamander either directly**	LS	*None required.*	N/A

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
(e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications.			
4.2-3 Impacts to California red legged frog either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications.	S	*4.2-3(a)* *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: Prior to the commencement of construction activities, the project proponent shall provide written notification to the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), and the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (ECCC HCP/NCCP) Implementing Entity, including site photos and California red-legged frog (CRLF) habitat assessment. The project proponent shall also notify these parties of the approximate date of removal of the CRLF breeding habitat at least 30 days prior to this removal to allow USFWS or CDFW staff to translocate individuals, if requested. USFWS or CDFW must notify the project proponent of their intent to translocate CRLF within 14 days of receiving notice from the project proponent. The applicant must allow USFWS or CDFW access to the site prior to construction if they request it.* *In accordance with the ECCC HCP/NCCP, restrictions on the nature of the disturbance or the date of the disturbance shall not be assessed on the*	LS

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		project, unless CDFW or USFWS notify the project proponent of their intent to translocate individuals within the required time period. In this case, the project proponent must coordinate the timing of disturbance of the breeding habitat to allow USFWS or CDFW to translocate the individuals. USFWS and CDFW shall be allowed 45 days to translocate individuals from the date the first written notification was submitted by the project proponent (or a longer period agreed to by the project proponent, USFWS, and CDFW). A report detailing compliance with the provisions established herein shall be submitted for review and approval to the City of Brentwood Community Development Department. *4.2-3(b)* *ECCC HCP/NCCP Section 6.3.3 Measure: Prior to implementation of a covered activity, the project applicant shall develop and submit a Construction Monitoring Plan to the City of Brentwood Community Development Department and the East Contra Costa County Habitat Conservancy for review and approval, detailing the methods in which the proposed project would avoid potential impacts to Covered Species during project construction, including CRLF, Swainson's hawk, golden eagle, western burrowing owl, tricolored blackbird, and San Joaquin kit fox. Elements of the Construction Monitoring Plan shall include the following:*	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• *Results of planning and preconstruction surveys;* • *Description of avoidance and minimization measures to be implemented, including a description of project-specific refinements to the measures or additional measures not included in the ECCC HCP/NCCP;* • *Description of monitoring activities, including monitoring frequency and duration, and specific activities to be monitored; and* • *Description of the on-site authority of the construction monitor to modify implementation of the activity.*	
4.2-4 Impacts to Swainson's hawk either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications.	S	*4.2-4(a)* *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: Prior to any ground disturbance related to covered activities associated with the proposed project during the nesting season (March 15 to September 15), a qualified biologist shall conduct a preconstruction survey, at most, one month prior to construction to establish whether Swainson's hawk nests within 1,000 feet of the project site are occupied. If potentially occupied nests within 1,000 feet are off the project site, then their occupancy shall be determined by observation from public roads or by observations of Swainson's hawk activity (e.g., foraging) near the project site. If nests are occupied, minimization measures and construction monitoring shall be required, as set forth in Mitigation Measure 4.2-4(b). A report detailing the methodology and results of the survey shall be*	LS

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Table 2-1
Summary of Impacts and Mitigation Measures

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		submitted for review and approval to the City of Brentwood Community Development Department. *4.2-4(b)* *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: During the nesting season (March 15 to September 15), covered activities associated with the proposed project within 1,000 feet of occupied nests or nests under construction shall be prohibited to prevent nest abandonment. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be used, the ECCC HCP/NCCP Implementing Entity shall coordinate with CDFW/USFWS to determine the appropriate buffer size.* *If young fledge prior to September 15, covered activities can proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant can apply to the Implementing Entity for a waiver of this avoidance measure. Any waiver must also be approved by USFWS and CDFW. While the nest is occupied, activities outside the buffer can take place. A report detailing compliance with the provisions established herein shall be submitted for review and approval to the City of Brentwood Community Development Department.*	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		All active nest trees shall be preserved on site, if feasible. Nest trees, including non-native trees, lost to covered activities shall be mitigated by the project proponent, in accordance with the requirements set forth in Mitigation Measure 4.2-4(c). *4.2-4(c)* *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: Prior to submittal of the of the final improvement plans, the project applicant shall demonstrate that the final project design will not result in the loss of non-riparian trees in areas proposed for disturbance. If the final project design results in the loss of non-riparian Swainson's hawk nest trees, such trees shall be mitigated by the project proponent by:* • *If feasible on-site, planting 15 saplings for every nest tree lost with the objective of having at least five mature trees established for every nest tree lost according to the requirements listed below.* *AND either* 1) *Pay the Implementing Entity an additional fee to purchase, plant, maintain, and monitor 15 saplings on the HCP/NCCP Preserve System for every tree lost according to the requirements listed below, OR*	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		2) *The project proponent shall plant, maintain, and monitor 15 saplings for every tree lost on-site or in off-site areas, which shall be approved by the Implementing Entity (e.g., within an HCP/NCCP Preserve or existing open space linked to HCP/NCCP preserves), according to the requirements listed below.* ○ *Tree survival shall be monitored at least annually for five years, then every other year until year 12. All trees lost during the first five years shall be replaced. Success shall be reached at the end of 12 years if at least five trees per tree lost survive without supplemental irrigation or protection from herbivory. Trees must also survive for at least three years without irrigation.* ○ *Irrigation and fencing to protect from deer and other herbivores may be needed for the first several years to ensure maximum tree survival.* ○ *Native trees suitable for the project site shall be planted. When site conditions permit, a variety of native trees shall be planted for each tree lost to provide trees with different*	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		growth rates, maturation, and lifespan, and to provide a variety of tree canopy structures for Swainson's hawk. The variety shall help to ensure that nest trees are available in the short term (five to 10 years for cottonwoods and willows) and in the long term (e.g., valley oak, sycamore) and shall also minimize the temporal loss of nest trees. ○ *Riparian woodland restoration conducted as a result of covered activities (i.e., loss of riparian woodland) can be used to offset the nest tree planting requirement above, if the nest trees are riparian species.* ○ *Whenever feasible and when site conditions permit, trees shall be planted in clumps together or with existing trees to provide larger areas of suitable nesting habitat and to create a natural buffer between nest trees and adjacent development (if plantings occur on the development site).* ○ *Whenever feasible, plantings in the project site shall occur closest to suitable foraging habitat outside the ECCC HCP/NCCP Urban Development Area (UDA).*	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		○ *Trees planted in the HCP/NCCP Preserves or other approved offsite location shall occur within the known range of Swainson's hawk in the inventory area and as close as possible to high-quality foraging habitat.* *A decrease of the number of years that newly planted nest trees must be monitored shall be at the discretion of the East Contra Costa County Habitat Conservancy and City of Brentwood. A report detailing compliance with the provisions established herein shall be submitted for review and approval to the City of Brentwood Community Development Department.*	
4.2-5 Impacts to golden eagle either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications.	S	*4.2-5(a)* *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: Prior to implementation of covered activities, a qualified biologist shall conduct a preconstruction survey to establish whether nests of golden eagles are occupied in accordance with the applicable criteria set forth in Section 6.3.1, Planning Surveys, of the ECCC HCP/NCCP. If nests are occupied, minimization requirements and construction monitoring shall be required, as set forth in Mitigation Measures 4.2-5(b) and 4.2-5(c). A report detailing the methodology and results of the survey shall be submitted for review and approval to the City of Brentwood Community Development Department.*	LS

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		4.2-5(b) *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: If active golden eagle nests are identified by the qualified biologist that could be impacted by the proposed project, during project construction, covered activities shall be prohibited within 0.5-mile of active nests. Nests can be built and active at almost any time of the year, although mating and egg incubation occurs from late January through August, with peak activity in March through July. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be appropriate or that a larger buffer should be implemented, the Implementing Entity shall coordinate with CDFG/USFWS to determine the appropriate buffer size. A report detailing compliance with the provisions established herein shall be submitted for review and approval to the City of Brentwood Community Development Department.* *4.2-5(c)* *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: During project construction, a qualified biologist shall provide on-site construction monitoring to ensure that covered activities do not occur within the non-disturbance buffer zone established around an active golden eagle nest. Although known golden eagle nest sites do not occur within or near the ECCC HCP/NCCP Urban Limit Line (ULL), covered activities inside and outside of*	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures		Level of Significance After Mitigation
			the Preserve System have the potential to disturb golden eagle nest sites. Construction monitoring shall ensure that direct effects to golden eagles are minimized. A report detailing compliance with the provisions established herein shall be submitted for review and approval to the City of Brentwood Community Development Department.	
4.2-6 Impacts to western burrowing owl either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications.	S	*4.2-6(a)*	*ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: Prior to any ground disturbance related to covered activities, a USFWS/CDFW-approved biologist shall conduct a preconstruction survey in areas identified in the planning surveys completed for the proposed project as having potential burrowing owl habitat. The preconstruction surveys shall establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls, in accordance with CDFW survey guidelines.* *On areas where activities are proposed, the biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership shall not be surveyed. Surveys shall take place near sunrise or sunset, in accordance with CDFW guidelines. All burrows or burrowing owls shall be identified and mapped. Surveys shall take place, at most, 30 days prior to construction. During the breeding season (February 1 to August 31), surveys shall document*	LS

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1 to January 31), surveys shall document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results shall be valid only for the season (breeding or nonbreeding) during which the survey is conducted. A report detailing the methodology and results of the survey shall be submitted for review and approval to the City of Brentwood Community Development Department.	
		4.2-6(b) *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: If burrowing owls are found during the breeding season (February 1 to August 31), in accordance with the CDFW's Staff Report on Burrowing Owl Mitigation, the project proponent shall avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance shall include establishment of a non-disturbance buffer zone (as described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 to January 31), the project proponent shall avoid the owls and the burrows they are using, if possible. Avoidance shall*	

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			include the establishment of a buffer zone (as described below). *During the breeding season, buffer zones of at least 250 feet in which construction activities cannot occur shall be established around each occupied burrow (nest site). Buffer zones of 160 feet shall be established around each burrow being used during the nonbreeding season. The buffers shall be delineated by highly visible, temporary construction fencing.* *If occupied burrows for burrowing owls are not avoided, passive relocation shall be implemented. Owls shall be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. The doors shall be in place for 48 hours, prior to excavation. The project area shall be monitored daily for one week to confirm that the owl has abandoned the burrow. Whenever possible, burrows shall be excavated using hand tools and refilled to prevent reoccupation. Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow. A report detailing compliance with the provisions established herein shall be submitted for review and approval to the City of Brentwood Community Development Department.*	
4.2-7 Impacts to white-tailed kite,	S	*4.2-7(a)*	*Prior to any ground disturbance related to covered*	LS

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tricolored blackbird, and nesting birds and raptors protected under the MBTA and CFGC either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications.		*activities that occur during the nesting season for white-tailed kite (March 15 to August 31), a qualified biologist shall conduct a preconstruction survey, at most, one month prior to construction to establish whether white-tailed kite is nesting in trees within or visible from the site. In the event active nests are found, an initial 300-foot buffer shall be established around the nest tree. Ground disturbance related to covered activities within the buffer shall either be delayed until a qualified biologist determines nesting is complete, or until the applicant consults with the ECCC HCP/NCCP Implementing Entity and CDFW and implements CDFW-approved measures to minimize potential disturbance. A report detailing the methodology and results of the survey and, if applicable, compliance with the provisions established herein shall be submitted for review and approval to the City of Brentwood Community Development Department.* *4.2-7(b)* *If possible, any ground disturbance related to covered activities shall occur outside of the general bird nesting season (February 1 to August 31). Alternately, a qualified biologist shall conduct a preconstruction survey, at most, two weeks prior to any ground disturbance related to covered activities. In the event active raptors or tricolored blackbird nests are found, an initial 300-foot buffer shall be established around the nests. In the event nests of other birds are found, an initial 50-foot buffer shall be*	

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			established around the nest. Ground disturbance related to covered activities within the buffers shall either be delayed until a qualified biologist determines nesting is complete, or until the applicant consults with the ECCC HCP/NCCP Implementing Entity and CDFW and implements CDFW-approved measures to minimize potential disturbance. A report detailing the methodology and results of the survey and, if applicable, compliance with the provisions established herein shall be submitted for review and approval to the City of Brentwood Community Development Department.	
4.2-8 Impacts to San Joaquin kit fox either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications.	S	*4.2-8(a)*	*ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: Prior to any ground disturbance related to covered activities, a USFWS/CDFW-approved biologist shall conduct a preconstruction survey in areas identified in the planning surveys conducted for the proposed project as supporting suitable breeding or denning habitat for San Joaquin kit fox. The surveys shall establish the presence or absence of San Joaquin kit foxes and/or suitable dens and evaluate use by kit foxes in accordance with USFWS survey guidelines. Preconstruction surveys shall be conducted within 30 days of ground disturbance. On areas where activities are proposed, the biologist shall survey the proposed disturbance footprint and a 250-foot radius from the perimeter of the proposed footprint to identify San Joaquin kit foxes and/or suitable dens. Adjacent parcels under different land ownership shall not be surveyed. The status of all*	LS

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		dens shall be determined and mapped. Written results of preconstruction surveys shall be submitted to USFWS and the City of Brentwood Community Development Department within five working days after survey completion and before the start of ground disturbance. Concurrence is not required prior to initiation of covered activities. *4.2-8(b)* *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: If San Joaquin kit foxes and/or suitable dens are identified in the survey area, the following measures shall be implemented, prior to the commencement of project construction:* • *If a San Joaquin kit fox den is discovered in the proposed development footprint, the den shall be monitored for three days by a USFWS/CDFW-approved biologist using a tracking medium or an infrared beam camera to determine if the den is currently being used;* • *Unoccupied dens shall be destroyed immediately to prevent subsequent use;* • *If a natal or pupping den is found, USFWS and CDFW shall be notified immediately. The den shall not be destroyed until the pups and adults have vacated, and then, only after further consultation with USFWS and CDFW;* • *If kit fox activity is observed at the den during the initial monitoring period, the den shall be monitored for an additional five consecutive*	

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		days from the time of the first observation to allow any resident animals to move to another den while den use is actively discouraged. For dens other than natal or pupping dens, use of the den can be discouraged by partially plugging the entrance with soil, such that any resident animal can easily escape. Once the den is determined to be unoccupied it may be excavated under the direction of the biologist. Alternatively, if the animal is still present after five or more consecutive days of plugging and monitoring, the den may have to be excavated when, in the judgment of a biologist, it is temporarily vacant (i.e., during the animal's normal foraging activities). *A report detailing compliance with the provisions established herein shall be submitted for review and approval to the City of Brentwood Community Development Department.*	
4.2-9 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.	S	*4.2-9(a)* *Implement Mitigation Measure 4.2-10(c).* *4.2-9(b)* *ECCC HCP/NCCP Conservation Measure 1.7: Prior to submittal of the of the final improvement plans, the project applicant shall ensure that a minimum 75-foot setback from the top of the bank of Sand Creek has been incorporated into the final project design. Incorporation of the foregoing setback shall be subject to review and approval by the City of Brentwood Community Development Department.*	LS

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4.2-10 Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	S	*4.2-10(a)* *ECCC HCP/NCCP Conservation Measure 1.10: Prior to submittal of the of the final improvement plans, the project applicant shall develop a Storm Water Pollution Prevention Plan (SWPPP) that identifies best management practices (BMPs) to be implemented to minimize the introduction of foreign material into waterbodies, control stormwater runoff, minimize erosion and sedimentation, and limit the amount of surface disturbance to the area.* *Standard construction BMPs shall be employed during construction to minimize the potential for erosion and off-site transport of fines. BMPs shall include use of water trucks, appropriate compaction of soil, and installation of straw wattles, silt fences or other technologies along the perimeter of the site during construction, and stabilization of bare soils as appropriate with seeding, straw, and/or hydromulch.* *The SWPPP shall be submitted for review and approval to the City Engineer.* *4.2-10(b)* *ECCC HCP/NCCP Conservation Measure 2.12: Prior to submittal of the final improvement plans, the project applicant shall incorporate the following measures into the final project design, which shall be submitted for review and approval to the City of Brentwood Community Development Department:* • *The project shall comply with the stream*	LS

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		setback requirements in Conservation Measure 1.7; • *The project shall comply with the guidelines in Conservation Measure 1.10 to minimize the effects of urban development on downstream hydrology, streams, and wetlands;* • *All wetlands to be avoided by covered activities shall be temporarily staked in the field by a qualified biologist;* • *The project shall establish a buffer zone between Sand Creek and development, as described in Conservation Measure 1.7;* • *Personnel conducting ground-disturbing activities adjacent to the seasonal wetland in the western portion of the site or the buffer zone along Sand Creek shall be trained by a qualified biologist in the avoidance and minimization requirements and the permit obligations of project proponents working under the ECCC HCP/NCCP. Vehicles and equipment shall be parked on pavement, existing roads, and previously disturbed areas;* • *Trash generated during project construction shall be promptly and properly removed from the site;* • *Construction or maintenance vehicles shall not be refueled within 200 feet of Sand Creek or the seasonal wetland unless a bermed and lined refueling area is constructed and*	

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		hazardous material absorbent pads are available in the event of a spill; • *Appropriate erosion-control measures (e.g., fiber rolls, filter fences, vegetative buffer strips) shall be used on-site to reduce siltation and runoff of contaminants into Sand Creek or the seasonal wetland. Filter fences and mesh shall be of material that will not entrap reptiles and amphibians. Erosion-control blankets shall be used as a last resort because of their tendency to biodegrade slowly and trap reptiles and amphibians;* • *Fiber rolls used for erosion-control shall be certified as free of noxious weed seed;* • *Seed mixtures applied for erosion-control shall not contain invasive non-native species, and shall be composed of native species or sterile nonnative species; and* • *Herbicides shall not be applied within the buffer area along Sand Creek unless needed to control serious invasive plants. In such case, herbicides that have been approved for use by U.S. Environmental Protection Agency (USEPA) in or adjacent to aquatic habitats may be used, as long as label instructions are followed and applications avoid or minimize impacts on Covered Species and their habitats. Appropriate herbicides may be applied to the ruderal grassland within the buffer area during the dry season to control*	

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		nonnative invasive species, such as yellow star-thistle. Herbicide drift shall be minimized by applying the herbicide as close to the target area as possible. *4.2-10(c) If a Clean Water Act (CWA) Section 404 permit is determined to be necessary, prior to the issuance of grading permits, the project applicant shall apply for a Section 404 permit from the U.S. Army Corps of Engineers (USACE). Waters that would be lost or disturbed shall be restored, replaced or rehabilitated on a "no-net-loss" basis. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods acceptable to the USACE. In the event that a Section 404 permit is required, the project applicant shall also apply for a Section 401 water quality certification from the Regional Water Quality Control Board (RWQCB) prior to the issuance of grading permits and adhere to the certification conditions therein.*	
4.2-11 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	LS	*None required.*	N/A
4.2-12 Conflict with any local policies or ordinances protecting	LS	*None required.*	N/A

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	biological resources, such as a tree preservation policy or ordinance.				
4.2-13	**Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.**	S	*4.2-13*	*Implement Mitigation Measures 4.2-3(a), 4.2-3(b), 4.2-4(a), 4.2-4(b), 4.2-4(c), 4.2-5(a), 4.2-5(b), 4.2-5(c), 4.2-6(a), 4.2-6(b), 4.2-7(a), 4.2-7(b), 4.2-8(a), 4.2-8(b), 4.2-9(c), 4.2-10(a), and 4.2-10(b).*	LS
4.2-14	**Cumulative loss of habitat for special-status species.**	LS	*None required.*		N/A
4.3 Hazards and Hazardous Materials					
4.3-1	**Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.**	LS	*None required.*		N/A
4.3-2	**Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.**	S	*4.3-2(a)*	*Prior to recordation of any final map for the proposed project, the applicant shall submit proof to the satisfaction of the City Engineer that all planned development on-site is at least 10 feet (10') from any abandoned oil wells. Precise locations of all oil well sites shall be depicted on the final map.* *If abandoned oil/gas well infrastructure is encountered during grading, grading shall cease and the well shall be removed to the satisfaction of City prior to resuming any grading.*	LS

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		4.3-2(b) *Prior to the first building permit issuance for the proposed project, the applicant shall confirm, to the satisfaction of the City Engineer and the Community Development Director, the lot locations of all on-site oil wells, and shall confirm that subject oil well locations are incorporated into all subject lot deeds, and shall confirm that all proposed development on the project site is at least 10 feet from any abandoned oil well locations.* *4.3-2(c)* *Prior to issuance of a grading permit, California Geologic Energy Management Department (CalGEM) shall be consulted to determine if the abandoned wells shall require modification in casing height, where grading is proposed proximate to these well locations. Proof of compliance shall be submitted to the City Community Development Department for review and approval.* *4.3-2(d)* *During construction activities, any abandoned oil pipelines within the project site shall be removed in consultation with the Contra Costa County Environmental Health Department. Proof of removal shall be provided to the City Community Development Department and City Engineer.*	
4.3-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing	LS	*None required.*	N/A

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or proposed school.			
4.3-4 Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.	NI	*None required.*	N/A
4.3-5 For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area.	NI	*None required.*	N/A
4.3-6 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LS	*None required.*	N/A
4.3-7 Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires.	LS	*None required.*	N/A
4.3-8 Cumulative exposure to potential hazards and	LS	*None required.*	N/A

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increases in the transport, storage, and use of hazardous materials.			
4.4 Noise			

4.4-1 Generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	S	*4.4-1* *Prior to the issuance of any permits, the following criteria shall be included on grading, improvement, and construction plans, and submitted for review and approval by the City of Brentwood Community Development Director.*
		• *Construction activities shall be limited to the hours set forth below:*
		  ○ *Monday through Friday 8:00 AM to 5:00 PM;*
		  ○ *Saturday 9:00 AM to 4:00 PM; and*
		  ○ *Construction shall be prohibited on Sundays and City holidays. Exceptions to allow expanded construction activities shall be reviewed on a case-by-case basis as determined by the Chief Building Official and/or City Engineer.*
		• *The project contractor shall ensure that the following construction noise Best Management Practices (BMPs) are met on-site during all phases of construction:*
		  ○ *All equipment driven by internal combustion engines shall be equipped with mufflers, air- inlet silencers where appropriate, and any*
			LS

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		other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications. Mobile or fixed "package" equipment (e.g., arc welders, air compressors) shall be equipped with shrouds and noise-control features that are readily available for that type of equipment. ○ *All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.* ○ *The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists.* ○ *At all times during project grading and construction, stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from residences.* ○ *Unnecessary idling of internal combustion engines shall be prohibited.*	

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		○ *Construction staging areas shall be established at locations that would create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction activities, to the extent feasible.* ○ *Construction site and access road speed limits shall be established and enforced during the construction period.* ○ *The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.* ○ *Project-related public address or music systems shall not be audible at any adjacent receptor.* ○ *Neighbors located adjacent to the construction site shall be notified of the construction schedule in writing.* ○ *The construction contractor shall designate a "noise disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall be responsible for determining the cause of the noise complaint (e.g.,*	

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		starting too early, poor muffler, etc.) and instituting reasonable measures as warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.	
4.4-2 Generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	LS	*None required.*	N/A
4.4-3 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.	S	*4.4-3 Prior to the issuance of grading permits, the following criteria shall be included on project grading plans, and submitted for review and approval by the City of Brentwood Community Development Director:* *Any compaction required less than 26 feet from the adjacent residential structures to the south of the project site shall be accomplished by using static drum rollers which use weight instead of vibrations to achieve soil compaction. As an alternative to this requirement, pre-construction crack documentation and construction vibration monitoring could be conducted for residential structures less than 26 feet from the project's property line to ensure that*	LS

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		construction vibrations do not cause damage to any adjacent structures.	
4.4-4 For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.	NI	*None required.*	N/A
4.4-5 Generation of a substantial permanent increase in ambient noise levels associated with cumulative development of the proposed project in combination with future buildout of the General Plan.	LS	*None required.*	N/A
4.5 Transportation			
4.5-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system during construction activities.	S	*4.5-1 Prior to grading permit issuance, the project applicant shall prepare a Construction Traffic Management Plan for review and approval by the City Engineer. The plan shall include the following:* • *A project staging plan to maximize on-site storage of materials and equipment;* • *A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak hours; lane*	LS

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		closure proceedings; signs, cones and other warning devices for drivers; and designation of construction access routes; • *Provisions for maintaining adequate emergency access to the project site;* • *Permitted construction hours, per City of Brentwood standards;* • *Designated locations for construction staging areas;* • *Identification of parking areas for construction employees, site visitors, and inspectors, including on-site locations; and* • *Provisions for street sweeping to remove construction-related debris on public streets.*	
4.5-2 Conflict with a program, plan, ordinance or policy addressing the circulation system during operations.	LS	*None required.*	N/A
4.5-3 Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).	S	*4.5-3 Prior to improvement plan approval, the proposed tentative map shall be revised to include an additional full intersection to achieve a project-wide intersection density of 61.5. The revised map shall be submitted to the City Engineer for review and approval. A potential intersection location is included as an Appendix to the VMT Assessment prepared for the proposed project by DKS.*	LS
4.5-4 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or	LS	*None required.*	N/A

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	incompatible uses (e.g., farm equipment) or result in inadequate emergency access.				
4.5-5	**Result in cumulative conflicts or inconsistencies with CEQA Guidelines Section 15064.3, subdivision (b).**	LCC	*None required.*		N/A
	Initial Study				
I-d.	**Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**	S	*I-1.*	*In conjunction with development of the proposed project, the developer shall shield all on-site lighting so that nighttime lighting is directed within the project site and does not illuminate adjacent properties. A detailed lighting plan shall be submitted for the review and approval by the Community Development Department and the Public Works Department in conjunction with the project improvement plans. The lighting plan shall indicate the locations and design of the shielded light fixtures.*	LS
II-a.	**Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**	S	*II-1.*	*Prior to recordation of any final map or issuance of any grading permit, the developer shall comply with Chapter 17.730 (Agricultural Preservation Program) of the Brentwood Municipal Code in order to mitigate the project's conversion of agricultural land, as defined in Section 17.730.020, by granting an agricultural conservation easement or paying the current agricultural conservation City fee in effect at that time to provide funds to purchase conservation easements to mitigate the loss of farmland.*	LS

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
II-e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?			
V-b. Would the project cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5? **V-c. Would the project disturb any human remains, including those interred outside of dedicated cemeteries?**	S	*V-1.* *Prior to grading permit issuance, the developer shall submit plans to the Community Development Department for review and approval which indicate (via notation on the improvement plans) that a qualified archaeologist shall conduct a Cultural Resources Worker Environmental Awareness Program (WEAP) training for all personnel involved in ground-disturbing, site preparation construction activities on the project site prior to construction and ground-disturbing activities. The training shall include basic information about the types of artifacts that might be encountered during construction activities, and procedures to follow in the event of a discovery. The training shall be provided for any additional personnel added to the project even after the initiation of construction and ground disturbing activities.* *V-2.* *Prior to grading permit issuance, the developer shall submit plans to the Community Development Department for review and approval which indicate (via notation on the improvement plans) that if*	LS

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		historic and/or cultural resources are encountered during site grading or other site work, all such work shall be halted immediately within 100 feet and the contractor shall immediately notify the Community Development Department of the discovery. In such case, a qualified archaeological monitor shall be retained by the developer, at its own expense, and shall evaluate any potentially important discovery. Significance determinations shall be measured in terms of criteria for inclusion on the California Register of Historical Resources (Title 14 CCR, §4852[a]), and the definition of tribal cultural resources set forth in Public Resources Code Section 21074. The archaeologist shall be required to submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Comments on the report shall be submitted by the Native American tribes within 30 days of receipt of the report. Further grading or site work within the area of discovery shall not be allowed until the preceding work has occurred. *V-3.* *Prior to grading permit issuance, the developer shall submit plans to the Community Development Department for review and approval which indicate (via notation on the improvement plans) that if human remains, or remains that are potentially human, are found during construction, a professional archeologist shall ensure reasonable protection*	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		measures are taken to protect the discovery from disturbance. The archaeologist shall notify the Contra Costa County Coroner (per §7050.5 of the State Health and Safety Code). The provisions of §7050.5 of the California Health and Safety Code, §5097.98 of the California Public Resources Code, and Assembly Bill 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, then the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the project (§5097.98 of the Public Resources Code). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the project contractor does not agree with the recommendations of the MLD, the NAHC can mediate (§5097.94 of the Public Resources Code). If an agreement is not reached, the qualified archaeologist or MLD must rebury the remains where they will not be further disturbed (§5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center, using an open space or conservation zoning designation or easement, or recording a reinternment document with the county in which the property is located (AB 2641). Work cannot resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		measures have been completed to their satisfaction.	
VII-ai. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. **VII-aii. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?**	S	*VII-1.* *All project buildings shall be designed in conformance with the current edition of the California Building Standards Code (CBSC).* *VII-2.* *Prior to grading permit issuance, the applicant shall submit a final geotechnical evaluation of the project site that analyzes soil stability including soil expansion, and the potential for lateral spreading, subsidence, liquefaction or collapse. The report shall identify any on site soil and seismic hazards and provide design recommendations for onsite soil and seismic conditions. The geotechnical evaluation shall be reviewed and approved by the City Engineer, Chief Building Official, and a qualified Geotechnical Engineer to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the project design in order to adhere to all geotechnical requirements contained in the California Building Code.* *VII-3.* *All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the City Engineer, Chief Building Official, and a qualified Geotechnical Engineer prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the*	LS

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures		Level of Significance After Mitigation
			project design in order to adhere to all geotechnical requirements contained in the California Building Code.	
VII-aiii. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction? **VII-aiv. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?** **VII-c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?**	S	*VII-4.* *VII-5.*	*During construction, the project contractor shall completely remove and recompact any existing non-engineered fill on-site under the supervision of a registered geotechnical engineer, according to the recommendations presented in the Geotechnical Exploration Report and to the satisfaction of City. A written summary of the operations shall be submitted to the City Engineer.* *All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the City Engineer, Chief Building Official, and a qualified Geotechnical Engineer, or through the state approval process for the school, prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the project design. In addition, prior to issuance of a building permit for any lot, the applicant shall submit to the City a letter from a qualified Geotechnical Engineer and Civil Engineer stating that the lot has been constructed in conformance with the approved Grading Plan and recommendations in the Geotechnical Report. The Geotechnical Exploration Report provides feasible measures including, but not limited to: demolition and stripping design grades be*	LS

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures		Level of Significance After Mitigation
			cleaned to a firm undisturbed soil surface; specification of backfill materials and procedure; slope gradient guidelines; creek bank and bed protection proper foundation design; reinforced structural mat foundations; and post-tensioned slabs.	
VII-b. Would the project result in substantial soil erosion or the loss of topsoil?	S	*VII-6.*	*Prior to grading permit issuance, the applicant shall submit a final grading plan to the City Engineer for review and approval. If the grading plan differs significantly from the proposed grading illustrated on the approved project plans, plans that are consistent with the new revised grading plan shall be provided for review and approval by the City Engineer.*	LS
		VII-7.	*Any applicant for a grading permit shall submit an erosion control plan to the City Engineer for review and approval. The plan shall identify protective measures to be taken during construction, supplemental measures to be taken during the rainy season, the sequenced timing of grading and construction, and subsequent revegetation and landscaping work to ensure water quality in creeks and tributaries in the General Plan Area is not degraded from its present level. All protective measures shall be shown on the grading plans and specify the entity responsible for completing and/or monitoring the measure and include the circumstances and/or timing for implementation.*	
		VII-8.	*Grading, soil disturbance, or compaction shall not*	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures		Level of Significance After Mitigation
			occur during periods of rain or on ground that contains freestanding water. Soil that has been soaked and wetted by rain or any other cause shall not be compacted until completely drained and until the moisture content is within the limit approved by a Soils Engineer. Approval by a Soils Engineer shall be obtained prior to the continuance of grading operations. Confirmation of this approval shall be provided to the City Engineer prior to commencement of grading.	
VII-d. Would the project be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	S	*VII-9.*	*Implement Mitigation Measure VII-5.*	LS
VII-f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	S	*VII-10.*	*Should construction or grading activities result in the discovery of unique paleontological resources, all work within 100 feet of the discovery shall cease. The Community Development Department shall be notified, and the resources shall be examined by a qualified archaeologist, paleontologist, or historian, at the developer's expense, for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist, paleontologist, or historian shall submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Work may only resume in the area of discovery when the preceding work*	LS

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		has occurred. The language of this mitigation shall be included via notation on the project improvement plans.	
X-a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	S	*X-1.* *Prior to issuance of grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP). The Developer shall file the Notice of Intent (NOI) and associated fee to the SWRCB. The SWPPP shall serve as the framework for identification, assignment, and implementation of BMPs. The contractor shall implement BMPs to reduce pollutants in stormwater discharges consistent with the requirements established in 15.52.60(F): Erosion and Sediment Control of the City's Municipal Code. The SWPPP shall be submitted to the City Engineer for review and approval and shall remain on the project site during all phases of construction. Following implementation of the SWPPP, the contractor shall subsequently demonstrate the SWPPP's effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable.* *X-2.* *Prior to the completion of construction, the applicant shall prepare and submit, for the City's review, an acceptable Stormwater Control Operation and Maintenance Plan. In addition, prior to the sale, transfer, or permanent occupancy of the site, the applicant shall be responsible for paying for the long-*	LS

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		term maintenance of treatment facilities, and executing a Stormwater Management Facilities Operation and Maintenance Agreement and Right of Entry in the form provided by the City of Brentwood. The applicant shall accept the responsibility for maintenance of stormwater management facilities until such responsibility is transferred to another entity. *The applicant shall submit, with the application of building permits, a draft Stormwater Facilities and Maintenance Plan, including detailed maintenance requirements and a maintenance schedule for the review and approval by the City Engineer. Typical routine maintenance consists of the following:* • *Limit the use of fertilizers and/or pesticides. Mosquito larvicides shall be applied only when absolutely necessary.* • *Replace and amend plants and soils as necessary to insure the planters are effective and attractive. Plants must remain healthy and trimmed if overgrown. Soils must be maintained to efficiently filter the storm water.* • *Visually inspect for ponding water to ensure that filtration is occurring.* • *After all major storm events, remove bubble-up risers for obstructions and remove if necessary.* • *Continue general landscape maintenance,*	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		including pruning and cleanup throughout the year. • *Irrigate throughout the dry season. Irrigation shall be provided with sufficient quantity and frequency to allow plants to thrive.* • *Excavate, clean and or replace filter media (sand, gravel, topsoil) to insure adequate infiltration rate (annually or as needed).* *X-3.* *Design of on-site drainage facilities shall meet with the approval of both the City Engineer and the Contra Costa County Flood Control and Water Conservation District prior to the issuance of grading permits.* *X-4.* *Contra Costa County Flood Control and Water Conservation District drainage fees for the Drainage Area shall be paid prior to issuance of grading permits to the satisfaction of the City Engineer.* *X-5.* *The Applicant/Developer shall ensure that the project site shall drain into a street, public drain, or approved private drain, in such a manner that un-drained depressions shall not occur. Satisfaction of this measure shall be subject to the approval of the City Engineer.* *X-6.* *The construction plans shall indicate roof drains emptying into a pipe leading to the project bioswale areas for the review and approval of the City*	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Engineer prior to the issuance of building permits. *X-7.* *The improvement plans shall indicate concentrated drainage flows not crossing sidewalks or driveways for the review and approval of the City Engineer prior to the issuance of grading permits.*	
X-ci. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site? **X-cii. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which**	S	*X-8.* *Prior to the completion of construction activities, the applicant shall prepare and submit, for the City's review, an acceptable Stormwater Control Operation and Maintenance Plan. In addition, prior to the sale, transfer, or permanent occupancy of the site the applicant shall be responsible for paying for the long-term maintenance of treatment facilities, and executing a Stormwater Management Facilities Operation and Maintenance Agreement and Right of Entry in the form provided by the City of Brentwood. The applicant shall accept the responsibility for maintenance of stormwater management facilities until such responsibility is transferred to another entity.* *The applicant shall submit, with the application of building permits, a draft Stormwater Facilities and Maintenance Plan, including detailed maintenance requirements and a maintenance schedule for the review and approval by the City Engineer. Typical routine maintenance consists of the following:* • *Limit the use of fertilizers and/or pesticides. Mosquito larvicides shall be applied only when*	LS

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
would result in flooding on- or offsite? **X-ciii. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**		*absolutely necessary.* • *Replace and amend plants and soils as necessary to ensure the planters are effective and attractive. Plants must remain healthy and trimmed if overgrown. Soils must be maintained to efficiently filter the storm water.* • *Visually inspect for ponding water to ensure that filtration is occurring.* • *After all major storm events remove trash, inspect drain pipes and bubble-up risers for obstructions and remove if necessary.* • *Continue general landscape maintenance, including pruning and cleanup throughout the year.* • *Irrigate throughout the dry season. Irrigation shall be provided with sufficient quantity and frequency to allow plants to thrive.* • *Excavate, clean and/or replace filter media (sand, gravel, topsoil) to ensure adequate infiltration rate (annually or as needed).* *X-9. Contra Costa County Flood Control & Water Conservation District drainage fees for the Drainage Areas shall be paid by the applicant prior to issuance of building permits.*	
XV-a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities,	S	*XV-1. Prior to building permit issuance, the developer shall cause the project to be annexed into the most current Community Facilities District established for Emergency Medical and Fire Protection Service Funding, per Brentwood Municipal Code Chapter*	LS

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection?		*17.635.* *XV-2.* *The project applicant shall participate in a Community Facilities District, which has been established by the Fire District and will include annual assessments in an amount sufficient to cover the service costs associated with the new residences.*	
XV-b. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection?	S	*XV-3.* *Prior to approval of the final map, the developer shall cause the project to be annexed into the most current City Community Facilities District, per Brentwood Municipal Code Chapter 17.636.*	LS
XV-c. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically	S	*XV-4.* *Prior to building permit issuance, the developer shall submit to the Community Development Department written proof from the Liberty Union High School District and the Brentwood Union School District that appropriate school mitigation fees have been paid.*	LS

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools?			
XVIII-a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	S	*XVIII-1.* *If tribal cultural resources are discovered during project-related construction activities, all ground disturbances within a minimum of 50 feet of the find shall be halted until a qualified professional archaeologist can evaluate the discovery. The archaeologist shall examine the resources, assess their significance, and recommend appropriate procedures to the lead agency to either further investigate or mitigate adverse impacts. If the find is determined by the lead agency in consultation with the Native American tribe traditionally and culturally affiliated with the geographic area of the project site to be a tribal cultural resource and the discovered archaeological resource cannot be avoided, then applicable mitigation measures for the resource shall be discussed with the geographically affiliated tribe. Applicable mitigation measures that also take into account the cultural values and meaning of the discovered tribal cultural resource, including confidentiality if requested by the tribe, shall be completed (e.g., preservation in place, data recovery program pursuant to Public Resources Code*	LS

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
XVIII-b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?		*§21083.2[i]). During evaluation or mitigative treatment, ground disturbance and construction work could continue on other parts of the project site.*	

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3. Project Description

3. PROJECT DESCRIPTION

3.1 INTRODUCTION

The Project Description chapter of the EIR provides a comprehensive description of the Bridle Gate Project (proposed project) in accordance with CEQA Guidelines Section 15124. A detailed description of the project location, project setting and surrounding uses, project objectives, project background, project components, and project approvals is presented below.

3.2 PROJECT LOCATION

The project site consists of two parcels totaling approximately 126.86 acres in the City of Brentwood (see Figure 3-1 and Figure 3-2) and is identified by the Contra Costa County Assessor's Parcel Numbers (APN) 019-082-009 and 019-082-010.[1]

3.3 PROJECT BACKGROUND

On June 6, 2006, following the City Council's approval of the necessary General Plan amendment and rezone, the City of Brentwood Planning Commission approved the first version of the Bridle Gate subdivision map. Commensurate with that approval, an IS/MND was adopted, which identified that all impacts resulting from the project could be reduced to a less-than-significant level with implementation of mitigation measures.

A revised version of the Bridle Gate Project was later proposed, and due to substantial changes to the project, an Environmental Impact Report (EIR) was prepared in 2020. However, the City Council denied the revised version of the project on March 9, 2021, and the EIR was not certified.

A third application for the project was submitted to the City of Brentwood in late 2021 and was deemed complete in June 2022. The City has determined that a Revised EIR (REIR) is the appropriate CEQA document for the current version of the Bridle Gate Project. A description of the revised Bridle Gate Project is discussed in further detail below.

3.4 PROJECT SETTING AND SURROUNDING LAND USES

Section 15125 of the CEQA Guidelines requires an EIR to include a description of the physical environmental conditions in the vicinity of the project. Generally, these conditions are listed as they exist at the time the Notice of Preparation (NOP) is published, from a local and regional perspective. Knowledge of the existing environmental setting is critical to the assessment of environmental impacts. Pursuant to CEQA Guidelines Section 15125, the description of the environmental setting shall not be longer than necessary to understand the potential significant effects of the project and its alternatives.

The following sections describe the existing setting of the project site and the surrounding land uses in the project vicinity. Please note that detailed discussions of the existing setting are included in the technical chapters of this REIR.

[1] The project site does not include the City-owned Sand Creek Road right-of-way.

Figure 3-1
Regional Location



Figure 3-2
Project Vicinity Map



Existing Setting

Sand Creek flows west to east through the northern portion of the project site and supports both native riparian vegetation and a variety of landscaped or planted ornamentals. The remainder of the project site is currently vacant and covered with grasses and weedy vegetation. Approximately 4.59 acres of seasonal wetlands have been delineated in the southwest portion of the site.

According to the USGS Brentwood Quadrangle, the project site is located within the Brentwood Oil and Gas Field. Based on Phase I and Phase II Environmental Site Assessments prepared for the proposed project by ENGEO, Inc., the project site previously contained seven active oil production wells and an oil tank farm that facilitated oil production and waste treatment.[2] In addition, the site previously contained 24 active groundwater monitoring wells. The oil wells, tank farm, groundwater monitoring wells, and associated facilities have all been properly abandoned under the oversight of the California Regional Water Quality Control Board, Central Valley Region (RWQCB). RWQCB letters dated December 19, 1996; July 7, 2000; and March 29, 2001 confirm that all of the former oil wells, tank farm, and monitoring wells were remediated, and further investigation and/or monitoring is not required.[3] Development of the proposed project would require the provision of appropriate setbacks from abandoned oil wells as dictated by Chapter 17.680 of the Brentwood Municipal Code.

The central and western portions of the project site contain moderately sloping hillsides along a northwesterly trending ridge. The northeastern and eastern portions of the site consist of gently easterly sloping topography ranging in elevation from approximately 120 feet above mean sea level (msl) to approximately 160 feet above msl. The highest elevation at the site is along the ridge in the southwestern portion of the site, at an approximate elevation of 230 feet above msl.

The City acquired property north of the project site for the extension of Sand Creek Road with plans to construct two lanes of traffic for vehicles, bicycle lanes, and a median island, and to extend public utilities to serve both the project and the PA-1 Specific Plan (Innovation Center) area to the north.

According to the City's General Plan, the project site is designated Regional Commercial (RC) north of the Sand Creek Road alignment, Residential-Low Density (R-LD) south of the Sand Creek Road alignment, Permanent Open Space (P-OS) along the southwest boundary of the site, and Park (P) (see Figure 3-3). The site is zoned Planned Development No. 36 (PD-36).

Surrounding Land Uses

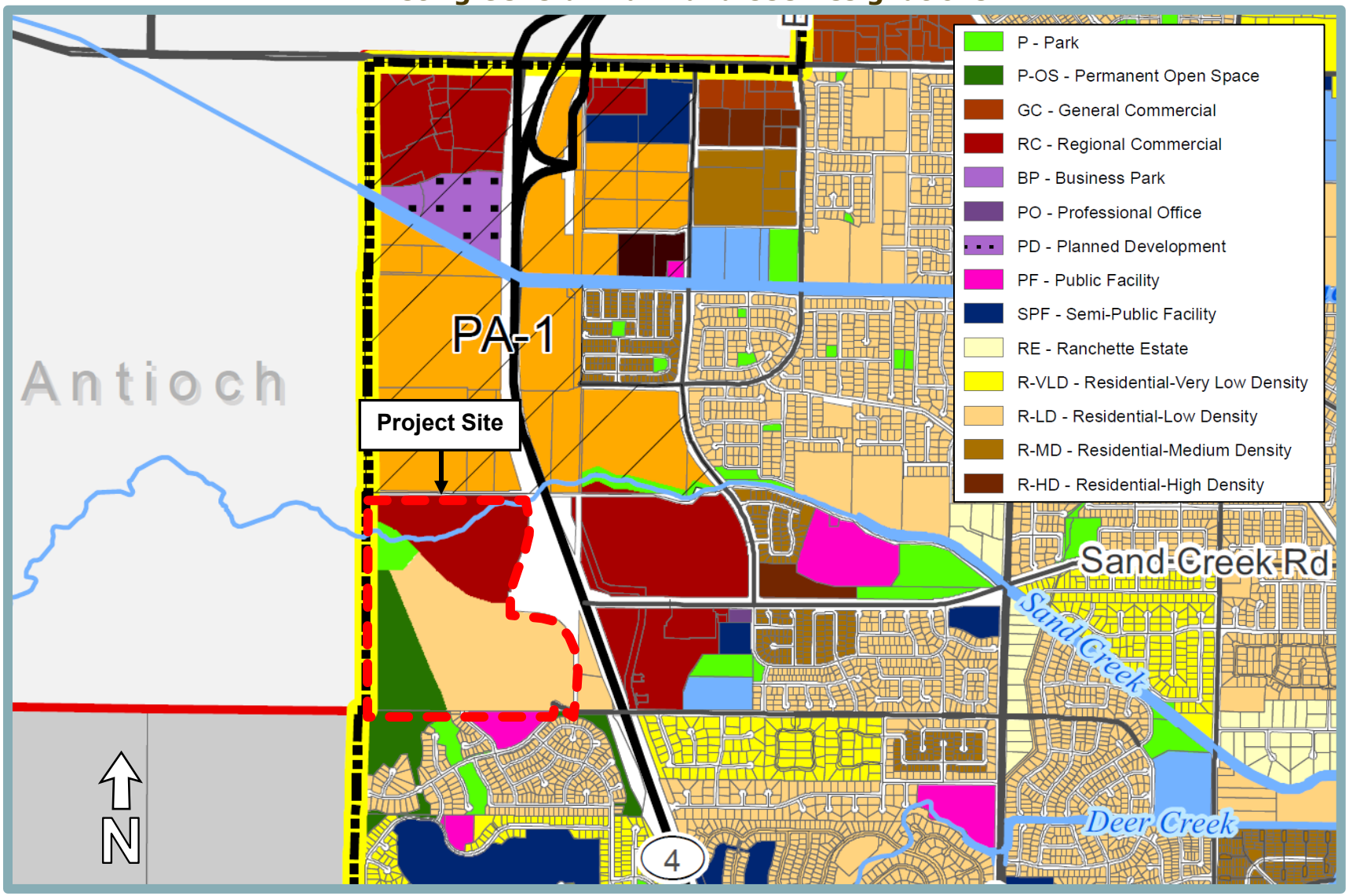
The project site is bounded by Old Sand Creek Road to the north, State Route (SR) 4 to the east, a single-family residential development (Brentwood Hills) to the south, and the edge of the Brentwood Planning Area and the City of Antioch's city limits to the west. A small segment of existing San Jose Avenue bounds the project site at its farthest southeastern corner. The western terminus of Sand Creek Road, constructed as part of the interchange with SR 4, is located adjacent to the eastern site boundary.

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2 ENGEO, Inc. *Phase One Environmental Site Assessment, Bridle Gate, Brentwood, California.* May 6, 2020.

3 California Regional Water Quality Control Board, Central Valley Region. *Monitoring Well Abandonment, ENEA, Brentwood Oil and Gas Field, Contra Costa County.* March 29, 2001.

Figure 3-3
Existing General Plan Land Use Designations



3.5 PROJECT OBJECTIVES

The following project objectives have been developed for the proposed project:

1. Maximize development of much-needed housing in the City of Brentwood, providing for a diversity of housing types to suit the demands of homebuyers with different socioeconomic statuses on a site that is close to main transportation corridors (e.g., SR 4) and which may be practically and efficiently connected to existing infrastructure, and which otherwise can be practically developed to facilitate achievement of state housing goals.
2. Provide parks and open space for residences in the region, in close proximity to project housing in order to minimize vehicle mile trips and associated air emissions.
3. Facilitate the extension of a portion of Sand Creek Road to the project entrance, which will help fulfill a critical need for the City of Brentwood and the region and Planning Area 1 to the north of the site.

3.6 PROJECT COMPONENTS

The proposed project would require approval of a Vesting Tentative Subdivision Map (VTSM) to develop 286 single-family residences, as well as associated improvements within the project site. The proposed project would also require approval of Design Review for the home designs, landscaping, and associated improvements. A potential Rezone to amend the PD-36 development standards is discussed below. Each project component is discussed in detail below.

Vesting Tentative Subdivision Map

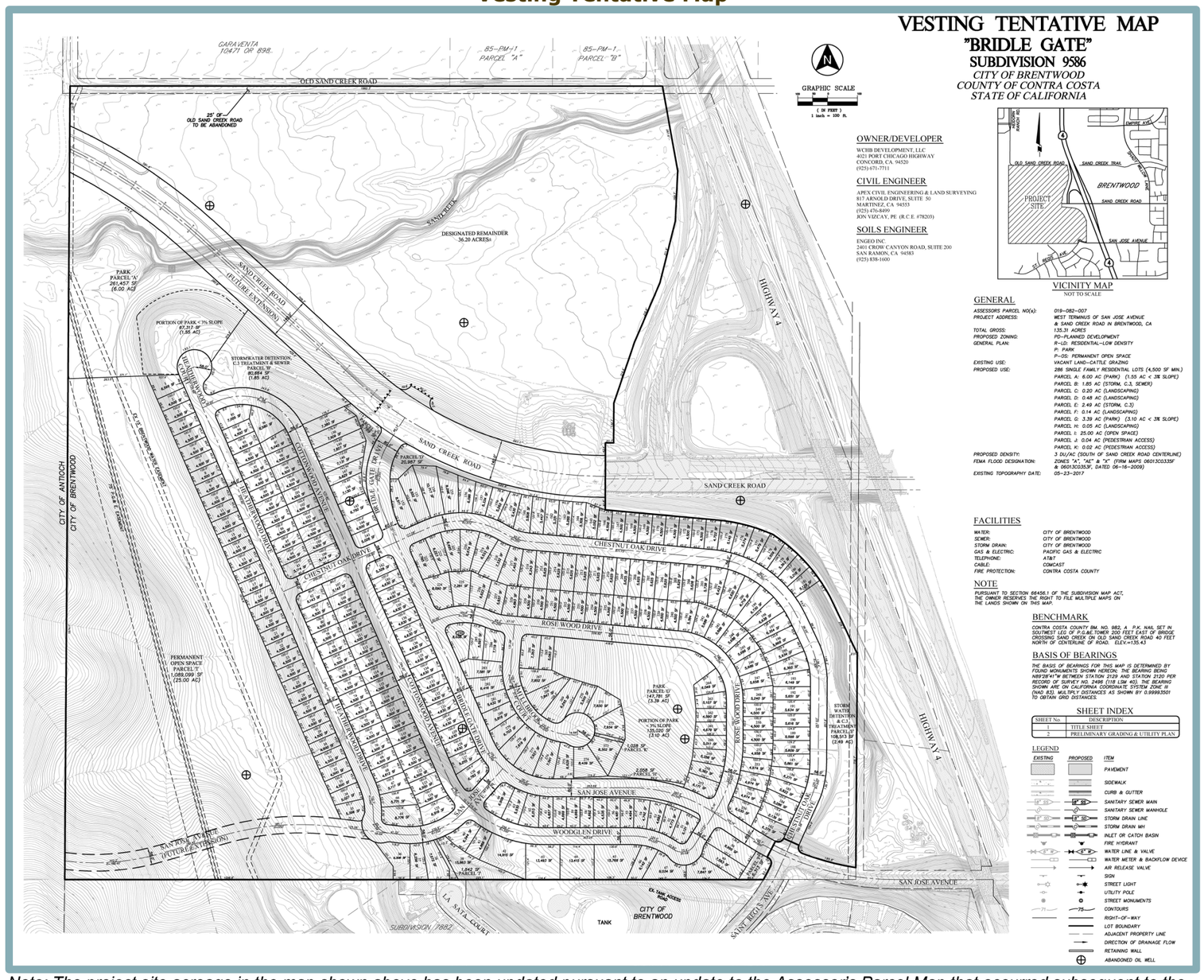
The proposed project would require approval of a VTSM to develop 286 single-family residences, as well as associated improvements within the project site, including parks, open space, stormwater detention and treatment areas, utility connections, and construction of an internal roadway network on approximately 92.96 acres (see Figure 3-4). The 33.9 acres of land located north of the future Sand Creek Road extension and designated for Regional Commercial uses by the General Plan is not proposed for development in this application and is shown as a designated remainder on the VTSM. It should be noted that due to an update to the Assessor's Parcel Map that occurred subsequent to the proposed project's application submittal, the acreages for the project parcel shown in Figure 4 differ slightly from the acreages described above. However, the acreages recorded on the Assessor's Parcel Map will be used for the purposes of the analysis included in the REIR. Each component of the VTSM is discussed in further detail below.

Single-Family Residential Development

The proposed project would include subdivision of the project site to construct 286 single-family homes in the southeastern portion of the site. Lot sizes would range from 4,500 to 15,863 square feet (sf), with one- to three-story residences ranging from 1,592 sf to 2,392 sf. Overall, a total of 61.961 acres of the project site would be developed with residential uses. Therefore, buildout of the single-family residential development would result in a density of approximately 4.62 dwelling units per acre (du/ac).[4] It should be noted that while this density calculation differs slightly from the density shown on the VTSM for the proposed project (see Figure 3-4), the density calculation included herein is based only on the portions of the site dedicated to residential use, consistent with guidance included in the City's General Plan.

[4] 61.961 acres/286 single-family homes = 4.62 dwelling units per acre.

Figure 3-4
Vesting Tentative Map



Note: The project site acreage in the map shown above has been updated pursuant to an update to the Assessor's Parcel Map that occurred subsequent to the proposed project's application submittal.

Parks, Landscaping, and Open Space

Two parcels totaling 9.39 acres (6 acres in the northwest portion of the site and 3.39 acres in the southeast portion of the site, respectively) would be dedicated to the City of Brentwood for use as public parks (see Figure 3-5, Parcel A and Parcel G). The parks would provide recreational amenities for residents of the proposed single-family subdivision. Landscaping elements would be provided throughout the proposed park areas and all other developed portions of the site consistent with City requirements.

As discussed previously, Sand Creek flows from west to east through the northern portion of the proposed project site. The 33.9 acres of land located north of the future Sand Creek Road extension (see below for road extension details) within the project site, which includes the majority of the portion of Sand Creek located within the site, is not proposed for development in this application. The remainder of the portion of Sand Creek located within the project site would be located within the proposed six-acre park. An additional 25 acres of permanent open space (Parcel I) would be located within the southwestern portion of the site.

Utilities and Drainage

Water and sewer service for the proposed project would be provided by the City of Brentwood. If not already completed by the City, the proposed project would include the extension of 16-inch water and 10-inch sewer lines within the portion of Sand Creek Road along the project frontage, which would then be connected to additional lines constructed within internal streets to serve the proposed development areas (see Figure 3-6).

Stormwater draining off impervious areas such as roofs, parking areas, and streets within the project site would be transported through new 18-inch storm drains to two bio-retention basins located in the northwestern portion of the site, southeast of the proposed six-acre park (Parcel B), and along the southeast boundary of the site (Parcel E), respectively.

Access and Circulation

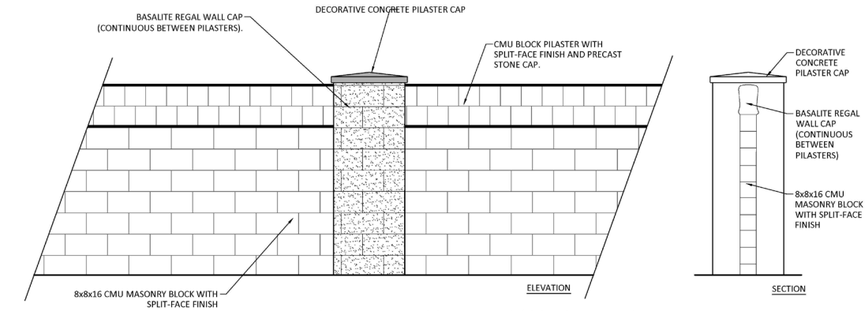
The proposed project would include construction of new internal roadways and the extension of San Jose Avenue to the west. It should be noted that a separate City-initiated capital improvement project will construct the central 56-foot of roadway including two, 20-foot lanes and a 16-foot median, streetlights, wet and dry utilities, and a full width bridge (four-lane arterial) across Sand Creek Road, with one lane in each direction, from the westerly existing terminus at SR 4 to Heidorn Ranch Road to the northwest. The remaining Sand Creek Road improvements, which consist of the two additional lanes to create a four-lane arterial roadway, and the landscaping of the median and parkways, will be required to be completed by the developers of adjoining properties. The future Sand Creek Road extension would extend along the northern boundary of the proposed single-family residential portion of the project and connect to one of the new internal roadways to provide site access. Site access would also be provided by the proposed extension of San Jose Avenue.

An internal circulation system would be provided throughout the proposed single-family residential subdivision. Each internal roadway would be designed to meet current City standards and would include sidewalks on both sides. Pedestrian access would be provided in the form of sidewalks and trails throughout the proposed development, in conformance with City standards.

Figure 3-5
Landscaping Plan

BRIDLE GATE SUBDIVISION

BRENTWOOD, CALIFORNIA



MASONRY WALL SCHEMATIC (CONCEPTUAL)
NTS

STREET TREE MATRIX

SYM	BOTANICAL/ COMMON NAME	SIZE	WATER USE*
	ARBUTUS 'MARINA'/ STRAWBERRY TREE	15 GAL	LOW
	CELTIS SINENSIS/ CHINESE HACKBERRY	15 GAL	LOW
	GINKGO BILOBA/ MAIDENHAIR TREE	15 GAL	MED
	KOELREUTERIA BIPINNATA/ CHINESE FLAME TREE	15 GAL	LOW
	QUERCUS AGRIFOLIA/ COAST LIVE OAK	15 GAL	LOW

SHRUBS/ GROUNDCOVERS

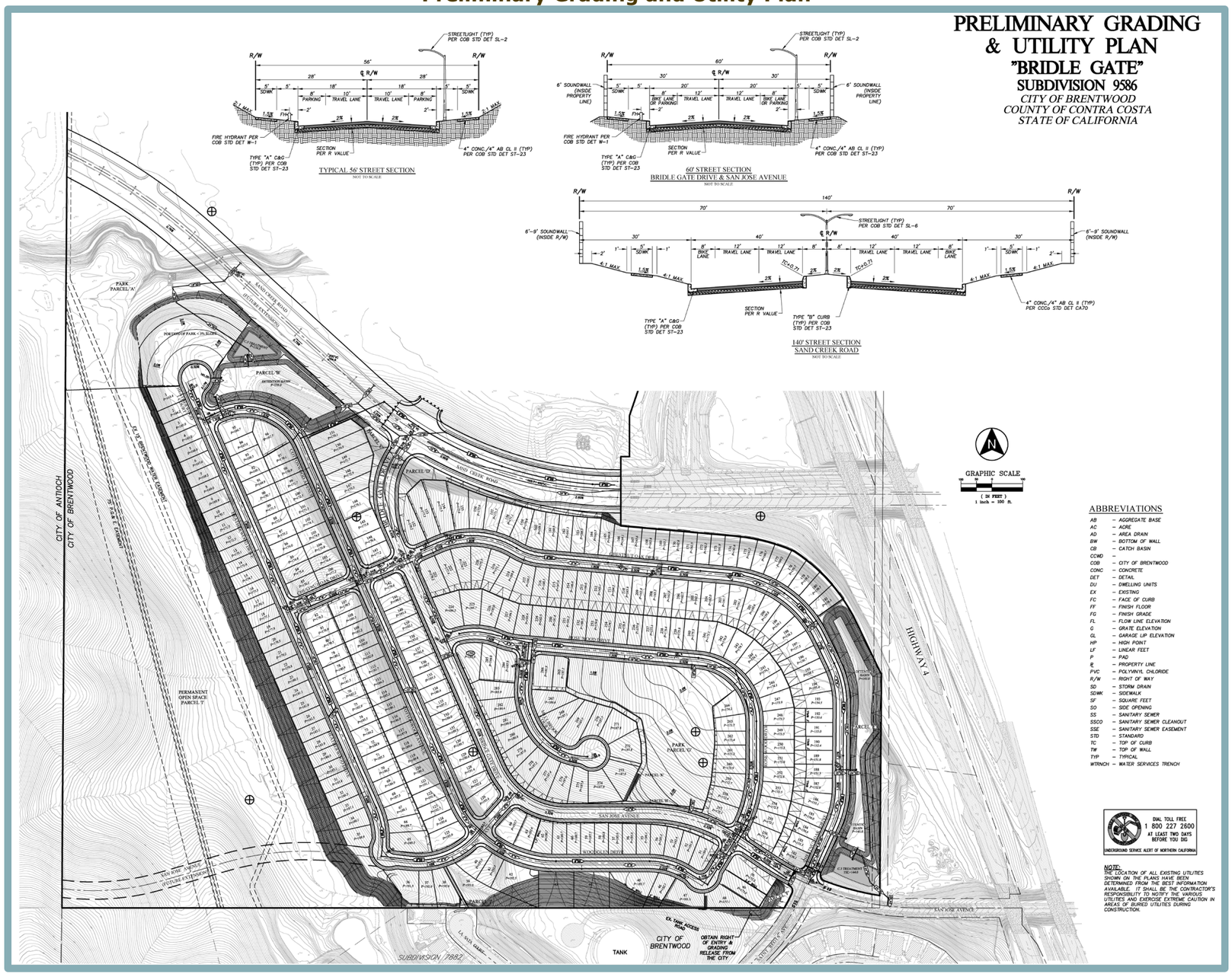
SYM	BOTANICAL/ COMMON NAME	SIZE	WATER USE*
	ACCA SELLOWIANA/ PINEAPPLE GUAVA	5 GAL	LOW
	BERBERIS T. 'CRIMSON PYGMY'/ DWARF JAPANESE BARBERRY	1 GAL	MED
	CALLISTEMON V. 'LITTLE JOHN'/ DWARF BOTTLEBRUSH	1 GAL	LOW
	CEANOTHUS 'CONCHA'/ WILD LILAC	5 GAL	LOW
	CORREA PULCHELLA 'MISSION BELLS'/ AUSTRALIAN FUSCHSIA	5 GAL	LOW
	HEMEROCALLIS 'RED RUM'/ RED DAYLILY	1 GAL	MED
	LANTANA 'GOLD RUSH'/ GOLD RUSH LANTANA	1 GAL	LOW
	LAVANDULA A. 'MUNSTEAD'/ ENGLISH LAVANDER	1 GAL	LOW
	LIRIOPE MUSCARI/ BIG BLUE LILY TURF	1 GAL	MED
	MAHONIA AQUIFOLIUM 'O. F.'/ OREGON GRAPE	1 GAL	MED
	PITTOSPORUM T. 'VARIEGATA'/ VARIGATED TOBIRA	5 GAL	MED
	RIBES VIBURNIFOLIUM/ EVERGREEN CURRANT	5 GAL	LOW
	ROSA X 'NOARE'/ RED FLOWER CARPET ROSE	5 GAL	MED
	ROSMARINUS 'HUNTINGTON CARPET'/ ROSEMARY	1 GAL	LOW
	SANTOLINA ROSMARINIFOLIA/ SANTOLINA	1 GAL	LOW
	TRACHELOSPERMUM/ JASMINOIDES STAR JASMINE	1 GAL	MED

NON-IRRIGATED BASIN/DETENTION HYDROSEED

SPECIES	LBS/ACRE
AGROSTIS EXARATA	2.0
DISTICHLIS	2.0
ELYMUS TRACHYCAULUS	4.0
ELYMUS TRITICOIDES RIO	3.0
HORDEUM BRACHYANTHERUM	4.0
HORDEUM DEPRESSUM	3.0
HORDEUM INTERCEDENS	3.0
MUHLENBERGIA RIGENS	0.5
PLANTAGO INSULARIS	20.0
SISRINCHIUM BELLUM	1.0
SPOROBOLUS AIRIOIDES	1.5
TRIFOLIUM WILLDENOVII	3.0
TOTAL:	47.0

0' 125'
62' 250'
SCALE: 1"=125'-0"

Figure 3-6
Preliminary Grading and Utility Plan



Design Review

In accordance with the Brentwood Zoning Ordinance, all proposed structures are subject to design review approval by the Planning Commission in order to foster a good design character through consideration of aesthetic and functional relationships to surrounding development. Therefore, because the proposed project would include the development of 286 single-family residences, the proposed project would be subject to Design Review approval.

Rezone

Correspondence from City staff has indicated that a Rezone to amend PD-36 may be required. The applicant disagrees. The proposed Rezone would pertain to the development standards for PD-36 with respect to lot sizes, setbacks, lot coverage, and consistency of use by each sub-area. This REIR addresses issues with respect to any potential rezoning.

3.7 PROJECT APPROVALS

The proposed project would require City approval of the following:

- Certification of the EIR, including adoption of Findings of Fact and a Statement of Overriding Considerations;
- Adoption of the Mitigation Monitoring and Reporting Program;
- A potential Rezone to amend the PD-36 Zoning District (see comment above);
- Vesting Tentative Subdivision Map; and
- Design Review.

4.0 Introduction to the Analysis

4.0 INTRODUCTION TO THE ANALYSIS

4.0.1 INTRODUCTION

The technical chapters of this REIR include the analysis of the potential impacts of buildout of the proposed project on the full range of environmental issue areas. Chapters 4.1 through 4.5 describe the focus of the analysis, references and other data sources for the analysis, the environmental setting related to each specific issue area, project-specific impacts and mitigation measures, and the cumulative impacts for each issue area. The format of each of the technical chapters is described at the end of this chapter. It should be noted that all technical reports are either attached to this REIR or available at the City by request.

4.0.2 ENVIRONMENTAL ISSUES ADDRESSED IN THIS REIR

The Initial Study prepared for the proposed project (Appendix C) includes a detailed environmental checklist addressing a range of technical environmental issues. For each technical environmental issue, the Initial Study identifies the level of impact for the proposed project. The Initial Study identifies the environmental effects as "no impact," "less than significant," "less than significant with mitigation incorporated," and "potentially significant." Environmental impact areas for which all CEQA impacts were identified as less than significant or no impact in the Initial Study are discussed in Chapter 5, Effects Not Found to be Significant, of this REIR. Consistent with Appendix G of the CEQA Guidelines, the following environmental issues identified in the Initial Study as potentially significant are addressed in separate technical chapters of this REIR:

- Air Quality, Greenhouse Gas Emissions, and Energy;
- Biological Resources;
- Hazards and Hazardous Materials;
- Noise; and
- Transportation.

Chapter 6 of the REIR presents a comprehensive list of all significant irreversible environmental changes and significant and unavoidable impacts identified in Chapters 4.1 through 4.5, as applicable. Chapter 6 of the REIR also presents a discussion of any growth-inducing impacts and additional information on the scope of the cumulative impact analysis.

4.0.3 ENVIRONMENTAL SETTING

According to the CEQA Guidelines Section 15125(a), "An EIR must include a description of the physical environmental conditions in the vicinity of the project. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." Notably, the purpose of this requirement, "…is to give the public and decision makers the most accurate and understandable picture practically possible of the project's likely near-term and long-term impacts."

The baseline for the proposed project is site conditions that exist at the time of the Notice of Preparation. Existing project site environmental conditions include Sand Creek, which flows west to east through the northern portion of the project site and supports both native riparian vegetation

and a variety of landscaped or planted ornamentals. The remainder of the project site is currently vacant and covered with grasses and weedy vegetation. Approximately 4.59 acres of seasonal wetlands have been delineated on-site.

According to the USGS Brentwood Quadrangle, the project site is located within the Brentwood Oil and Gas Field. Based on a Phase I and Phase II Environmental Site Assessment prepared for the proposed project by ENGEO, Inc., the project site previously contained seven active oil production wells and an oil tank farm that facilitated oil production and waste treatment.[1] In addition, the site previously contained 24 active groundwater monitoring wells. The oil wells, tank farm, groundwater monitoring wells, and associated facilities have all been properly abandoned under the oversight of the California Regional Water Quality Control Board, Central Valley Region (RWQCB). RWQCB letters dated December 19, 1996, July 7, 2000, and March 29, 2001 confirm that all of the former oil wells, tank farm, and monitoring wells were remediated, and further investigation and/or monitoring is not required.[2]

The central and western portions of the project site contain moderately sloping hillsides along a northwesterly trending ridge. The northeastern and eastern portions of the site consist of gently easterly sloping topography ranging in elevation from approximately 120 feet above mean sea level (msl) to approximately 160 feet above msl. The highest elevation at the site is along the ridge in the southwestern portion of the site, at an approximate elevation of 230 feet above msl.

The project site is bounded by Old Sand Creek Road to the north, State Route (SR) 4 to the east, a single-family residential development (Brentwood Hills) to the south, and the edge of the Brentwood Planning Area and the City of Antioch's city limits to the west. A small segment of existing San Jose Avenue bounds the project site at its farthest southeastern corner. The western terminus of Sand Creek Road, constructed as part of the interchange with SR 4, is located adjacent to the eastern site boundary.

4.0.4 DETERMINATION OF SIGNIFICANCE

Under CEQA, a significant effect is defined as a substantial or potentially substantial adverse change in the environment (Public Resources Code [PRC] Section 21068). The CEQA Guidelines require that the determination of significance be based on scientific and factual data. The specific criteria for determining the significance of a particular impact are identified within in each technical chapter, and are consistent with significance criteria set forth in the CEQA Guidelines or as based on the professional judgment of the Lead Agency with support of substantial evidence.

Four categories of impacts are used for the project-specific impacts within this REIR: no impact, less than significant, significant, and significant and unavoidable. The description of each determination is as follows:

No Impact. The impact would clearly not cause any physical changes in the existing or projected future environment.

Less than Significant. The impact would not cause significant adverse physical changes in the existing or projected future environment; therefore, mitigation is not required. Or, while some

[1] ENGEO, Inc. *Phase One Environmental Site Assessment, Bridle Gate, Brentwood, California.* May 6, 2020.
[2] California Regional Water Quality Control Board, Central Valley Region. *Monitoring Well Abandonment, ENEA, Brentwood Oil and Gas Field, Contra Costa County.* March 29, 2001.

impact may be associated with the project, it is not significant or is acceptable based on the applicable thresholds of significance.

Significant. Under CEQA, a significant impact is defined as a substantial, or potentially substantial, adverse physical change in the environment. CEQA Guidelines Section 15064 states that the determination is to be made by the lead agency based on scientific and factual data, to the extent possible.

Significant and Unavoidable. An impact is considered significant and unavoidable when the result is a substantial effect on the environment for which mitigation has not been identified as feasible to reduce the impact to a less-than-significant level, or mitigation is identified but would not fully mitigate the impact to acceptable levels. Mitigation may be required to reduce the impact as much as possible, even if the impact would remain significant and unavoidable.

A cumulative discussion of the impacts of the proposed project in conjunction with other development in the region is included in each technical chapter of this REIR. Cumulative impacts are determined to be less than significant, less than cumulatively considerable, cumulatively considerable, or significant and unavoidable. When a cumulative impact is determined to be less than significant, this signifies that the proposed project's incremental effect, in combination with the effects of other cumulative development, is not significant. The description of the other cumulative determinations is as follows:

Less than Cumulatively Considerable. The project, in combination with other cumulative development, would generate a significant cumulative impact; however, the project's incremental contribution to the significant cumulative impact is less than cumulatively considerable (see CEQA Guidelines Section 15064[h][5]).

Cumulatively Considerable. The project, in combination with other cumulative development, would generate a significant cumulative impact; and, the project's incremental contribution to the significant cumulative impact is cumulatively considerable (see CEQA Guidelines Section 15064[h][1]).

Significant and Unavoidable. Significant and unavoidable cumulative impacts are impacts on the environment that result from the incremental impacts of a proposed project when added to other past, current, and future projects and cannot be alleviated to a less than cumulatively considerable level. Such impacts can result from individually minor but collectively significant actions that occur over time.

All mitigation measures pertinent to each individual impact follow directly after the statement of level of significance of the impact (see below). The effectiveness of identified mitigation measures in reducing impacts is also evaluated.

4.0.5 TECHNICAL CHAPTER FORMAT

Each technical chapter addressing a specific environmental issue begins with an **introduction** describing the purpose of the chapter. The introduction is followed by a description of the project's baseline **environmental setting** pertaining to that particular environmental issue. The setting description is followed by the **regulatory context** and the **impacts and mitigation measures** discussion. The discussion contains the **standards of significance**, followed by the **method of analysis**. The **impacts and mitigation measures** discussion includes impact statements

prefaced by a number in bold-faced type. An explanation of each impact and an analysis of the impact's significance follow each impact statement (see below), followed by all mitigation measures pertinent to each individual impact. The degree of relief provided by identified mitigation measures is also evaluated. An example of the format is shown below.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on the implementation of the proposed project in comparison with the standards of significance.

4.x-1 Statement of Project-Specific Impact

Discussion of impact for the proposed project in paragraph format.

Statement of ***level of significance*** of impact prior to mitigation is included at the end of each impact discussion. The following levels of significance are used in the REIR: less than significant, significant, or significant and unavoidable. If an impact is determined to be significant, mitigation will be included in order to reduce the specific impact to the maximum extent feasible. Impacts that cannot be reduced to a less-than-significant level with implementation of all feasible mitigation would be considered to remain significant and unavoidable.

Mitigation Measure(s)

Statement of *level of significance* after the mitigation is included immediately preceding mitigation measures.

4.x-1(a) *Required mitigation measure(s) presented in italics and listed in consecutive order.*

4.x-1(b) *Required additional mitigation measure, if necessary.*

Cumulative Impacts and Mitigation Measures

The following discussion of cumulative impacts is based on implementation of the proposed project in combination with cumulative development within the applicable area or region.

4.x-2 Statement of Cumulative Impact

Discussion of cumulative impacts for the proposed project in paragraph format.

As discussed in detail in Chapter 6, Statutorily Required Sections, of the REIR, the cumulative setting for the proposed project is generally considered to be development anticipated to occur upon buildout of the City of Brentwood General Plan (i.e., Brentwood city limits), as well as buildout of a number of approved or reasonably foreseeable projects within the project region.

Statement of ***level of significance*** of cumulative impact prior to mitigation is included at the end of each impact discussion. The following levels of significance are used in the EIR for cumulative impacts: less than significant, less than cumulatively considerable, cumulatively considerable, or significant and unavoidable.

If an impact is determined to be cumulatively considerable, mitigation will be included in order to reduce the specific impact to the maximum extent feasible. Impacts that cannot be reduced to a less than cumulatively considerable level with the implementation of all feasible mitigation would be considered to remain significant and unavoidable.

Mitigation Measure(s)

Statement of *level of significance* after the mitigation is included immediately preceding mitigation measures.

4.x-2(a) *Required mitigation measure(s) presented in italics and listed in consecutive order.*

4.x-2(b) *Required additional mitigation measure, if necessary.*

4.1 Air Quality, Greenhouse Gas Emissions, and Energy

4.1 AIR QUALITY, GREENHOUSE GAS EMISSIONS, AND ENERGY

4.1.1 INTRODUCTION

The Air Quality, Greenhouse Gas Emissions, and Energy chapter of the REIR describes the potential impacts of the proposed project on local and regional air quality emissions, potential impacts related to greenhouse gas (GHG) emissions and climate change, and potential impacts related to energy. The chapter includes a discussion of the existing air quality, GHG, and energy setting, the existing regulatory setting, as well as potential air quality, GHG, and energy impacts resulting from implementation of the project. Potential direct and indirect impacts from project-related activities are considered on both a local and regional scale, and mitigation measures warranted to reduce or eliminate any identified significant impacts are discussed within the chapter. The chapter is primarily based on an Air Quality Technical Report and Greenhouse Gas Reduction Plan (Air Quality Report) prepared for the proposed project by Ramboll US Consulting Inc. (Ramboll) (see Appendix D),[1] and information and guidance within the Bay Area Air Quality Management District's (BAAQMD's) California Environmental Quality Act Air Quality Guidelines (Air Quality Guidelines),[2] as well as the City of Brentwood General Plan,[3] and the General Plan EIR.[4]

4.1.2 EXISTING ENVIRONMENTAL SETTING

The following information provides an overview of the existing environmental setting in relation to air quality within the proposed project area. Air basin characteristics, ambient air quality standards (AAQS), attainment status and regional air quality plans, local air quality monitoring, odors, and sensitive receptors are discussed. In addition to the information pertaining to air quality, information related to climate change, GHGs, and energy is provided.

Air Basin Characteristics

The project site is located in the eastern portion of the nine-county San Francisco Bay Area Air Basin (SFBAAB), and is within the jurisdictional boundaries of the BAAQMD. The SFBAAB consists of coastal mountain ranges, inland valleys, and bays. The project site is located within the City of Brentwood, which is located south of the San Joaquin-Sacramento River Delta, and would be considered to be within the Carquinez Strait region of the SFBAAB. Being located between the greater Bay Area and the Central Valley has great influence on the climate and air quality of the area. During the summer and fall months, marine air is drawn eastward through the Carquinez Strait, with common wind speeds of 15 to 20 miles per hour throughout the region.

The general westerly flow of the winds in the straits tends to move pollutants east. Thus, the winds dilute pollutants and transport them away from the area, so that emissions released in the project area have more influence on air quality in the Sacramento and San Joaquin Valleys than locally.

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1 Ramboll US Consulting, Inc. *Air Quality Technical Report and Greenhouse Gas Reduction Plan.* February 16, 2022.
2 Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines.* April 2023.
3 City of Brentwood. *City of Brentwood General Plan.* Adopted July 22, 2014.
4 City of Brentwood. *Final Environmental Impact Report for the 2014 Brentwood General Plan Update*. June 2014

However, stationary sources located in upwind cities and the City's location downwind of the greater Bay Area also means that pollutants from other areas are transported to the City.

Average daily maximum temperatures (in degrees Fahrenheit) can reach the 90s in summer, and drop to the 30s in winter. Rainfall amounts in the region vary, with an average of 15 inches annually in Brentwood.

Ambient Air Quality Standards

Both the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established AAQS for common pollutants. The federal standards are divided into primary standards, which are designed to protect the public health, and secondary standards, which are designed to protect the public welfare. The ambient air quality standards for each contaminant represent safe levels that avoid specific adverse health effects. Pollutants for which air quality standards have been established are called "criteria" pollutants. Table 4.1-1 identifies the major pollutants, characteristics, health effects and typical sources. The federal and California ambient air quality standards (NAAQS and CAAQS, respectively) are summarized in Table 4.1-2. The NAAQS and CAAQS were developed independently with differing purposes and methods. As a result, the federal and State standards differ in some cases. In general, the State of California standards are more stringent than the federal standards, particularly for ozone and particulate matter (PM).

A description of each criteria pollutant and its potential health effects is provided in the following section.

Ozone

Ozone is a reactive gas consisting of three oxygen atoms. In the troposphere, ozone is a product of the photochemical process involving the sun's energy, and is a secondary pollutant formed as a result of a complex chemical reaction between reactive organic gases (ROG) and nitrogen oxides (NO_X) emissions in the presence of sunlight. As such, unlike other pollutants, ozone is not released directly into the atmosphere from any sources. In the stratosphere, ozone exists naturally and shields Earth from harmful incoming ultraviolet radiation.

The primary source of ozone precursors is mobile sources, including cars, trucks, buses, construction equipment, and agricultural equipment. Ground-level ozone reaches the highest level during the afternoon and early evening hours. High levels occur most often during the summer months. Ground-level ozone is a strong irritant that could cause constriction of the airways, forcing the respiratory system to work harder in order to provide oxygen. Ozone at the Earth's surface causes numerous adverse health effects and is a major component of smog. High concentrations of ground level ozone can adversely affect the human respiratory system and aggravate cardiovascular disease and many respiratory ailments.

Reactive Organic Gas

ROG is a reactive chemical gas composed of hydrocarbon compounds typically found in paints and solvents that contributes to the formation of smog and ozone by involvement in atmospheric chemical reactions. A separate health standard does not exist for ROG. However, some compounds that make up ROG are toxic, such as the carcinogen benzene.

Table 4.1-1
Summary of Criteria Pollutants

Pollutant	Characteristics	Health Effects	Major Sources
Ozone	A highly reactive gas produced by the photochemical process involving a chemical reaction between the sun's energy and other pollutant emissions. Often called photochemical smog.	• Eye irritation • Wheezing, chest pain, dry throat, headache, or nausea • Aggravated respiratory disease such as emphysema, bronchitis, and asthma	Combustion sources such as factories, automobiles, and evaporation of solvents and fuels.
Carbon Monoxide	An odorless, colorless, highly toxic gas that is formed by the incomplete combustion of fuels.	• Impairment of oxygen transport in the bloodstream • Impaired vision, reduced alertness, chest pain, and headaches • Can be fatal in the case of very high concentrations	Automobile exhaust, combustion of fuels, and combustion of wood in woodstoves and fireplaces.
Nitrogen Dioxide	A reddish-brown gas that discolors the air and is formed during combustion of fossil fuels under high temperature and pressure.	• Lung irrigation and damage • Increased risk of acute and chronic respiratory disease	Automobile and diesel truck exhaust, industrial processes, and fossil-fueled power plants.
Sulfur Dioxide	A colorless, irritating gas with a rotten egg odor formed by combustion of sulfur-containing fossil fuels.	• Aggravation of chronic obstruction lung disease • Increased risk of acute and chronic respiratory disease	Diesel vehicle exhaust, oil-powered power plants, and industrial processes.
Particulate Matter (PM_{10} and $PM_{2.5}$)	A complex mixture of extremely small particles and liquid droplets that can easily pass through the throat and nose and enter the lungs.	• Aggravation of chronic respiratory disease • Heart and lung disease • Coughing • Bronchitis • Chronic respiratory disease in children • Irregular heartbeat • Nonfatal heart attacks	Combustion sources such as automobiles, power generation, industrial processes, and wood burning. Also from unpaved roads, farming activities, and fugitive windblown dust.
Lead	A metal found naturally in the environment as well as in manufactured products.	• Loss of appetite, weakness, apathy, and miscarriage • Lesions of the neuromuscular system, circulatory system, brain, and gastrointestinal tract	Industrial sources and combustion of leaded aviation gasoline.

Sources:

- ***California Air Resources Board. California Ambient Air Quality Standards (CAAQS). Available at: http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm. Accessed December 2022.***
- ***Sacramento Metropolitan, El Dorado, Feather River, Placer, and Yolo-Solano Air Districts, Spare the Air website. Air Quality Information for the Sacramento Region. Available at: http://www.sparetheair.com/health.cfm?page=healthoverall. Accessed December 2022.***
- ***California Air Resources Board. Glossary of Air Pollution Terms. Available at: http://www.arb.ca.gov/html/gloss.htm. Accessed December 2022.***

Table 4.1-2
Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS	NAAQS	
			Primary	Secondary
Ozone	1 Hour	0.09 ppm	-	Same as primary
	8 Hour	0.070 ppm	0.070 ppm	
Carbon Monoxide	8 Hour	9 ppm	9 ppm	-
	1 Hour	20 ppm	35 ppm	
Nitrogen Dioxide	Annual Mean	0.030 ppm	53 ppb	Same as primary
	1 Hour	0.18 ppm	100 ppb	-
Sulfur Dioxide	24 Hour	0.04 ppm	-	-
	3 Hour	-	-	0.5 ppm
	1 Hour	0.25 ppm	75 ppb	-
Respirable Particulate Matter (PM_{10})	Annual Mean	20 ug/m^3	-	Same as primary
	24 Hour	50 ug/m^3	150 ug/m^3	
Fine Particulate Matter ($PM_{2.5}$)	Annual Mean	12 ug/m^3	12 ug/m^3	15 ug/m^3
	24 Hour	-	35 ug/m^3	Same as primary
Lead	30 Day Average	1.5 ug/m^3	-	-
	Calendar Quarter	-	1.5 ug/m^3	Same as primary
Sulfates	24 Hour	25 ug/m^3	-	-
Hydrogen Sulfide	1 Hour	0.03 ppm	-	-
Vinyl Chloride	24 Hour	0.010 ppm	-	-
Visibility Reducing Particles[1]	8 Hour	see note below	-	-

ppm = parts per million
ppb = parts per billion
µg/m^3 = micrograms per cubic meter

1. Statewide Visibility Reducing Particle Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

Source: California Air Resources Board. California Ambient Air Quality Standards (CAAQS). Available at: http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm. Accessed December 2022.

Oxides of Nitrogen

NO_X are a family of gaseous nitrogen compounds and are precursors to the formation of ozone and particulate matter. The major component of NO_X, nitrogen dioxide (NO_2), is a reddish-brown gas that discolors the air and is toxic at high concentrations. NO_X results primarily from the combustion of fossil fuels under high temperature and pressure.

On-road and off-road motor vehicles and fuel combustion are the major sources of NO_X. NO_X reacts with ROG to form smog, which could result in adverse impacts to human health, damage the environment, and cause poor visibility. Additionally, NO_X emissions are a major component of acid rain. Health effects related to NO_X include lung irritation and lung damage and can cause increased risk of acute and chronic respiratory disease.

Nitrogen Dioxide

A particular oxide of nitrogen that is of concern to human health is NO_2. NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO), which is a colorless, odorless gas.

A large body of health science literature indicates that exposure to NO_2 can induce adverse health effects. The strongest health evidence, and the health basis for the AAQS for NO_2, results from controlled human exposure studies that show that NO_2 exposure can intensify responses to allergens in allergic asthmatics. In addition, several epidemiological studies have demonstrated associations between NO_2 exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses. Infants and children are particularly at risk because they have disproportionately higher exposure to NO_2 than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration. Several studies have shown that long-term NO_2 exposure during childhood, the period of rapid lung growth, can lead to smaller lungs at maturity in children with higher compared to lower levels of exposure. In addition, children with asthma have a greater degree of airway responsiveness compared with adult asthmatics. In adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless, poisonous gas produced by incomplete burning of carbon-based fuels such as gasoline, oil, and wood. When CO enters the body, the CO combines with chemicals in the body, which prevents blood from carrying oxygen to cells, tissues, and organs. Symptoms of exposure to CO can include problems with vision, reduced alertness, and general reduction in mental and physical functions. Exposure to CO can result in chest pain, headaches, reduced mental alertness, and death at high concentrations.

Sulfur Dioxide

Sulfur dioxide (SO_2) is a colorless, irritating gas with a rotten egg odor formed primarily by the combustion of sulfur-containing fossil fuels from mobile sources, such as locomotives, ships, and off-road diesel equipment. SO_2 is also emitted from several industrial processes, such as petroleum refining and metal processing. Similar to airborne NO_X, suspended sulfur oxide particles contribute to poor visibility. Sulfur oxide particles are also a component of PM_{10} (discussed below).

Sulfates

Sulfates are the fully oxidized ionic form of sulfur and are colorless gases. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. The sulfur is oxidized to SO_2 during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features.

The sulfates standard established by CARB is designed to prevent aggravation of respiratory symptoms. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardio-

pulmonary disease. Sulfates are particularly effective in degrading visibility, and, because they are usually acidic, can harm ecosystems and damage materials and property.

Hydrogen Sulfide

Hydrogen sulfide (H_2S) is associated with geothermal activity, oil and gas production, refining, sewage treatment plants, and confined animal feeding operations. Hydrogen sulfide is extremely hazardous in high concentrations, especially in enclosed spaces (800 parts per million [ppm] can cause death).

Particulate Matter

Particulate matter, also known as particle pollution or PM, is a complex mixture of extremely small particles and liquid droplets. Particle pollution is made up of several components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health impacts. The USEPA is concerned about particles that are 10 micrometers in diameter or smaller (PM_{10}) because those are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, the particles could affect the heart and lungs and cause serious health effects. USEPA groups particle pollution into three categories based on their size and where they are deposited:

- "Inhalable coarse particles ($PM_{2.5-10}$)," which are found near roadways and dusty industries, are between 2.5 and 10 micrometers in diameter. $PM_{2.5-10}$ is deposited in the thoracic[5] region of the lungs.
- "Fine particles ($PM_{2.5}$)," which are found in smoke and haze, are 2.5 micrometers in diameter and smaller. $PM_{2.5}$ particles could be directly emitted from sources such as forest fires, or could form when gases emitted from power plants, industries, and automobiles react in the air. They penetrate deeply into the thoracic and alveolar regions of the lungs.
- “Ultrafine particles (UFP),” are very, very small particles (less than 0.1 micrometers in diameter) largely resulting from the combustion of fossil fuels, meat, wood, and other hydrocarbons. While UFP mass is a small portion of $PM_{2.5}$, their high surface area, deep lung penetration, and transfer into the bloodstream could result in disproportionate health impacts relative to their mass. UFP is not currently regulated separately but is analyzed as part of $PM_{2.5}$.

PM_{10}, $PM_{2.5}$, and UFP include primary pollutants, which are emitted directly to the atmosphere and secondary pollutants, which are formed in the atmosphere by chemical reactions among precursors. Generally speaking, $PM_{2.5}$ and UFP are emitted by combustion sources like vehicles, power generation, industrial processes, and wood burning, while PM_{10} sources include the same sources plus roads and farming activities. Fugitive windblown dust and other area sources also represent a source of airborne dust. Long-term PM pollution, especially fine particles, could result in significant health problems including, but not limited to, the following: increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing; decreased lung function; aggravated asthma; development of chronic respiratory disease in children; development of chronic bronchitis or obstructive lung disease; irregular heartbeat; heart attacks; and increased blood pressure.

[5] The thoracic region of the lungs includes the trachea and main bronchi.

Lead

Lead is a relatively soft and chemically resistant metal that is a natural constituent of air, water, and the biosphere. Lead forms compounds with both organic and inorganic substances. As an air pollutant, lead is present in small particles. Sources of lead emissions in California include a variety of industrial activities. Gasoline-powered automobile engines were a major source of airborne lead through the use of leaded fuels. The use of leaded fuel has been mostly phased out, with the result that ambient concentrations of lead have dropped dramatically. However, because lead was emitted in large amounts from vehicles when leaded gasoline was used, lead is present in many soils (especially urban soils) as a result of airborne dispersion and could become re-suspended into the air.

Because lead is only slowly excreted by the human body, exposures to small amounts of lead from a variety of sources could accumulate to harmful levels. Effects from inhalation of lead above the level of the ambient air quality standard may include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms could include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children. Lead also causes cancer.

Vinyl Chloride

Vinyl chloride (C_2H_3Cl, also known as VCM) is a colorless gas that does not occur naturally, but is formed when other substances such as trichloroethane, trichloroethylene, and tetrachloro-ethylene are broken down. Vinyl chloride is used to make polyvinyl chloride (PVC) which is used to make a variety of plastic products, including pipes, wire and cable coatings, and packaging materials.

Visibility Reducing Particles

Visibility Reducing Particles are a mixture of suspended particulate matter consisting of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. The standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are also a category of environmental concern. A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic non-cancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics “Hot Spots” Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over five years.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a variety of sources, including stationary sources, such as dry cleaners, gas stations, diesel back-up generators, and laboratories; mobile sources, such as automobiles, ships, and trains; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and non-carcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) basis.

Health risks from TACs are a function of both the concentration of emissions and the duration of exposure, which typically are associated with long-term exposure and the associated risk of contracting cancer. Health effects of exposure to TACs other than cancer can include birth defects, neurological damage, and death. Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level. The identification, regulation, and monitoring of TACs is relatively new compared to criteria air pollutants that have established AAQS. TACs are regulated or evaluated on the basis of risk to human health rather than comparison to an AAQS or emission-based threshold. The following includes a discussion of common TACs.

Diesel Particulate Matter

Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90 percent of DPM is less than one micrometer in diameter (about 1/70th the diameter of a human hair) and, thus, is a subset of $PM_{2.5}$. DPM is typically composed of carbon particles ("soot," also called black carbon) and numerous organic compounds, including more than 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. CARB classified "particulate emissions from diesel-fueled engines" (i.e., DPM; 17 California Code of Regulations [CCR] 93000) as a TAC in August 1998. A broad range of diesel engines emit DPM, including on-road diesel engines of trucks, buses, and cars; off-road diesel engines, including locomotives, marine vessels, heavy-duty construction equipment; and stationary diesel back-up generators, among others. Approximately 70 percent of all airborne cancer risk in California is associated with DPM.[6] To reduce the cancer risk associated with DPM, CARB adopted a Diesel Risk Reduction Plan in 2000. Because DPM is a part of $PM_{2.5}$, DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure. Typical effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies. Receptors most vulnerable to non-cancer health effects are children, whose lungs are still developing, and older adults, who often have chronic health problems.

Due to the high levels of diesel activity, high volume freeways, stationary diesel engines, rail yards and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. The CARB's Air Quality and Land Use Handbook: A Community Health Perspective (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. Construction-related activities also have the

[6] California Air Resources Board. *Overview: Diesel Exhaust & Health.* Available at: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed January 2023.

potential to generate concentrations of DPM from on-road haul trucks and off-road equipment exhaust emissions.

The size of diesel particulates that are of the greatest health concern are fine particles (i.e., $PM_{2.5}$) and UFPs. The small diameter of UFPs imparts the particulates with unique attributes, such as high surface areas and the ability to penetrate deeply into lungs. Once UFPs have been deposited in lungs, the small diameter allows the UFPs to be transferred to the bloodstream. The high surface area of the UFPs also allows for a greater adsorption of other chemicals, which are transported along with the UFPs into the bloodstream of the inhaler, where the chemicals can eventually reach critical organs.[7] The penetration capability of UFPs may contribute to adverse health effects related to heart, lung, and other organ health.[8] UFPs are a subset of DPM and activities that create large amounts of DPM, such as the operations involving heavy diesel-powered engines, also release UFPs. Considering that UFPs are a subset of DPM, and DPM represents a subset of $PM_{2.5}$, estimations of either concentrations or emissions of $PM_{2.5}$ or DPM include UFPs.

Naturally Occurring Asbestos

Another concern related to air quality is naturally occurring asbestos (NOA). Asbestos is a term used for several types of naturally-occurring fibrous minerals found in many parts of California. The most common type of asbestos is chrysotile, but other types are also found in California. When rock containing asbestos is broken or crushed, asbestos fibers may be released and become airborne. Exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest and abdominal cavity), and asbestosis (a non-cancerous lung disease which causes scarring of the lungs). Because asbestos is a known carcinogen, NOA is considered a TAC. Sources of asbestos emissions include: unpaved roads or driveways surfaced with ultramafic rock; construction activities in ultramafic rock deposits; or rock quarrying activities where ultramafic rock is present.

NOA is typically associated with fault zones, and areas containing serpentinite or contacts between serpentinite and other types of rocks. According to mapping prepared by the California Geological Survey, the project site is not in an area likely to contain serpentinite or other ultramafic rocks.[9] Consequently, NOA is not expected to be present at the project site.

Attainment Status and Regional Air Quality Plans

Areas not meeting the NAAQS presented in Table 4.1-2 above are designated by the USEPA as nonattainment. Further classifications of nonattainment areas are based on the severity of the nonattainment problem, with marginal, moderate, serious, severe, and extreme nonattainment classifications for ozone. Nonattainment classifications for PM range from marginal to serious. The Federal Clean Air Act (FCAA) requires areas violating the NAAQS to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The SIP contains the strategies and control measures for states to use to attain the NAAQS. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, rules, and regulations of air basins as reported by the agencies with jurisdiction over them. The USEPA reviews SIPs to determine if they conform to the mandates of the FCAA amendments and would achieve air quality goals when implemented.

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7 Health Effects Institute. *Understanding the Health Effects of Ambient Ultrafine Particles*. January 2013.
8 South Coast Air Quality Management District. *Final 2012 Air Quality Management Plan*. December 2012.
9 California Department of Conservation, Division of Mines and Geology. *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos*. August 2000.

The CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA) of 1988. The CCAA classifies ozone nonattainment areas as moderate, serious, severe, and extreme based on severity of violations of the CAAQS. For each nonattainment area classification, the CCAA specifies air quality management strategies that must be adopted. For all nonattainment areas, attainment plans are required to demonstrate a five-percent-per-year reduction in nonattainment air pollutants or their precursors, averaged every consecutive three-year period, unless an approved alternative measure of progress is developed. Air districts with air quality that is in violation of CAAQS are required to prepare an air quality attainment plan that lays out a program to attain the CCAA mandates.

Table 4.1-3 presents the current attainment status of the SFBAAB, including Contra Costa County. As shown in the table, the area is currently designated as a nonattainment area for the State and federal ozone, State and federal $PM_{2.5}$, and State PM_{10} standards. The SFBAAB is designated attainment or unclassified for all other AAQS.

Table 4.1-3
Contra Costa County Attainment Status Designations

Pollutant	Averaging Time	California Standards	Federal Standards
Ozone	1 Hour	**Nonattainment**	-
	8 Hour	**Nonattainment**	**Nonattainment**
Carbon Monoxide	8 Hour	Attainment	Attainment
	1 Hour	Attainment	Attainment
Nitrogen Dioxide	Annual Mean	-	Attainment
	1 Hour	Attainment	Unclassified
Sulfur Dioxide	Annual Mean	Attainment	Attainment
	24 Hour	Attainment	Attainment
	3 Hour	-	Unclassified
	1 Hour	Attainment	Attainment
Respirable Particulate Matter (PM_{10})	Annual Mean	**Nonattainment**	-
	24 Hour	**Nonattainment**	Unclassified
Fine Particulate Matter ($PM_{2.5}$)	Annual Mean	**Nonattainment**	Attainment
	24 Hour	-	**Nonattainment**
Lead	30 Day Average	-	-
	Calendar Quarter	-	Attainment
	Rolling 3-Month Average	-	Attainment
Sulfates	24 Hour	Attainment	-
Hydrogen Sulfide	1 Hour	Unclassified	-
Visibility Reducing Particles	8 Hour	Unclassified	-

Source: Bay Area Air Quality Management District. Air Quality Standards and Attainment Status. Available at: http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status. Accessed December 2022.

In compliance with the FCAA and CCAA, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions through regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans

were prepared in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG).

The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which is a proposed revision to the Bay Area part of the SIP to achieve the federal ozone standard.[10] The plan was adopted on October 24, 2001 and approved by the CARB on November 1, 2001.

The most recent State ozone plan is the 2017 Clean Air Plan, adopted on April 19, 2017.[11] The 2017 Clean Air Plan was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, TACs, and GHGs. The control strategies included in the 2017 Clean Air Plan serve as the backbone of the 2017 Clean Air Plan, and build upon existing regional, state, and national programs for emissions reductions. The 2017 Clean Air Plan includes 85 control measures, which provide an integrative approach to reducing ozone, PM, TAC, and GHG emissions.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the State and federal standards within the SFBAAB. The plans are based on population and employment projections provided by local governments, usually developed as part of the General Plan update process.

Local Air Quality Monitoring

Air quality is monitored by BAAQMD and CARB at various locations in the region that provide information on ambient concentrations of criteria air pollutants and TACs to help determine which air quality standards are being violated, and to direct the BAAQMD emission reduction efforts, such as developing attainment plans and rules, incentive programs, etc. The nearest monitoring station to the project site is the Bethel Island Road monitoring site, which is located approximately seven miles northeast of the project site at 5551 Bethel Island Road. Data for $PM_{2.5}$, was not available for the Bethel Island Road monitoring site; thus, such data was obtained from the next nearest monitoring site, which is the Concord monitoring site located approximately 14 miles west of the project site at 2975 Treat Boulevard. Table 4.1-4 shows historical occurrences of pollutant levels exceeding the State and federal AAQS for the three-year period from 2019 to 2021. The number of days that each standard was exceeded is presented in the table as well.

Odors

Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster).

An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. In a phenomenon known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed

[10] Bay Area Air Quality Management District. *Air Quality Plans*. Available at: http://www.baaqmd.gov/Divisions/Planning-and-Research/Plans.aspx. Accessed December 2022.
[11] *Ibid.*

and direction; and the sensitivity of receptors. Meteorological conditions also affect the dispersion of odor emissions, which determines the exposure concentration of odiferous compounds at receptors. The predominant wind direction in an area influences which receptors are exposed to the odiferous compounds generated by a nearby source. Receptors located upwind from a large odor source may not be affected due to the produced odiferous compounds being dispersed away from the receptors. Wind speed also influences the degree to which odor emissions are dispersed away from any area.

Table 4.1-4
Air Quality Data Summary for the Bethel Island Road Air Quality Monitoring Site (2019-2021)

Pollutant	Standard	Days Standard Was Exceeded		
		2019	2020	2021
1-Hour Ozone	State	0	1	1
	Federal	0	0	0
8-Hour Ozone	State	1	2	4
	Federal	1	2	4
24-Hour PM_{10}	State	2	0	0
	Federal	0	0	0
24-Hour $PM_{2.5}$*	Federal	0	16	2
1-Hour Nitrogen Dioxide	State	0	0	0
	Federal	0	0	0

*Data obtained from the Concord monitoring site.

Source: California Air Resources Board, Aerometric Data Analysis and Management (iADAM) System. Available at: http://www.arb.ca.gov/adam/topfour/topfour1.php. Accessed December 2022.

Odiferous compounds could be generated from a variety of source types including both construction and operational activities. Examples of common land use types that typically generate significant odor impacts include, but are not limited to, wastewater treatment plants, sanitary landfills, composting/green waste facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting/coating operations, rendering plants, and food packaging plants. The project site is not located in the vicinity of any such land uses.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Sensitive receptors are typically defined as facilities where sensitive receptor population groups (i.e., children, the elderly, the acutely ill, and the chronically ill) are likely to be located. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, day care centers, playgrounds, and medical facilities. A residential development exists immediately to the south of the project site. The nearest residences are considered to be the existing residences adjacent to the southern boundary of the project site.

Greenhouse Gas Emissions

GHGs are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the Earth's atmosphere. Some GHGs occur naturally and are emitted into the atmosphere through both natural processes and human activities. Other GHGs are created and emitted solely

through human activities. The principal GHGs that enter the atmosphere due to human activities are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated carbons. Other common GHGs include water vapor, ozone, and aerosols. The increase in atmospheric concentrations of GHG due to human activities has resulted in more heat being held within the atmosphere, which is the accepted explanation for global climate change.

The primary GHG emitted by human activities is CO_2, with the next largest components being CH_4 and N_2O. A wide variety of human activities result in the emission of CO_2. Some of the largest sources of CO_2 include the burning of fossil fuels for transportation and electricity, industrial processes including fertilizer production, agricultural processing, and cement production. The primary sources of CH_4 emissions include domestic livestock sources, decomposition of wastes in landfills, releases from natural gas systems, coal mine seepage, and manure management. The main human activities producing N_2O are agricultural soil management, fuel combustion in motor vehicles, nitric acid production, manure management, and stationary fuel combustion. Emissions of GHG by economic sector indicate that transportation-related activities account for the majority of U.S. emissions. Transportation is the largest single-source of GHG emissions, and electricity generation is the second largest source, followed by industrial activities. The agricultural, commercial, and residential sectors account for the remainder of GHG emission sources.[12]

Emissions of GHG are partially offset by uptake of carbon and sequestration in trees, agricultural soils, landfilled yard trimmings and food scraps, and absorption of CO_2 by the Earth's oceans. Additional emission reduction measures for GHG could include, but are not limited to, compliance with local, State, or federal plans or strategies for GHG reductions, on-site and off-site mitigation, and project design features. Attainment concentration standards for GHGs have not been established by the federal or State government.

Global Warming Potential

Global warming potential (GWP) is one type of simplified index (based upon radiative properties) that can be used to estimate the potential future impacts of emissions of various gases. According to the USEPA, the GWP of a gas, or aerosol, to trap heat in the atmosphere is the "cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas." The reference gas for comparison is CO_2. GWP is based on a number of factors, including the heat-absorbing ability of each gas relative to that of CO_2, as well as the decay rate of each gas relative to that of CO_2. The GWP of each gas is determined by comparing the radiative forcing associated with emissions of that gas versus the radiative forcing associated with emissions of the same mass of CO_2, for which the GWP is set at one. Methane gas, for example, is estimated by the USEPA to have a comparative global warming potential 25 times greater than that of CO_2, as shown in Table 4.1-5.

As shown in the table, at the extreme end of the scale, sulfur hexafluoride is estimated to have a comparative GWP 22,800 times that of CO_2. The atmospheric lifetimes of such GHGs are estimated by the USEPA to vary from 50 to 200 years for CO_2, to 50,000 years for CF_4. Longer atmospheric lifetimes allow GHG to buildup in the atmosphere; therefore, longer lifetimes correlate with the GWP of a gas. The common indicator for GHG is expressed in terms of metric tons of CO_2 equivalents ($MTCO_2e$), which is calculated based on the GWP for each pollutant.

[12] U.S. Environmental Protection Agency. *Sources of Greenhouse Gas Emissions.* Available at: https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions. Accessed December 2022.

Table 4.1-5
GWPs and Atmospheric Lifetimes of Select GHGs

Gas	Atmospheric Lifetime (years)	GWP (100 year time horizon)
Carbon Dioxide (CO_2)	50-200[1]	1
Methane (CH_4)	12	25
Nitrous Oxide (N_2O)	114	298
Hydrofluorocarbon (HFC)-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
PFC: Tetrafluoromethane (CF_4)	50,000	7,390
PFC: Hexafluoroethane (C_2F_6)	10,000	12,200
Sulfur Hexafluoride (SF_6)	3,200	22,800

1. For a given amount of CO_2 emitted, some fraction of the atmospheric increase in concentration is quickly absorbed by the oceans and terrestrial vegetation, some fraction of the atmospheric increase will only slowly decrease over a number of years, and a small portion of the increase will remain for many centuries or more.

Source: U.S. Environmental Protection Agency. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019 [Table 1-2]. April 14, 2021

Effects of Global Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The Intergovernmental Panel on Climate Change's (IPCC) Climate Change 2021: The Physical Science Basis report indicated that warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia.[13] Signs that global climate change has occurred include:

- Warming of the atmosphere and ocean;
- Diminished amounts of snow and ice;
- Rising sea levels; and
- Ocean acidification.

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California. The Office of Environmental Health Hazard Assessment (OEHHA) identified various indicators of climate change in California, which are scientifically based measurements that track trends in various aspects of climate change. Many indicators reveal discernable evidence that climate change is occurring in California and is having significant, measurable impacts in the State. Changes in the State's climate have been observed, including:

- An increase in annual average air temperature with record warmth occurring in recent years;
- More frequent extreme heat events;
- More extreme drought;
- A decline in winter chill; and

13 Intergovernmental Panel on Climate Change. *Climate Change 2021: The Physical Science Basis Summary for Policymakers*. Available at: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf. Accessed December 2022.

- An increase in variability of statewide precipitation.

Warming temperatures and changing precipitation patterns have altered California's physical systems—the ocean, lakes, rivers, and snowpack—upon which the State depends. Winter snowpack and spring snowmelt runoff from the Sierra Nevada and southern Cascade Mountains provide approximately one-third of the State's annual water supply. Impacts of climate on physical systems have been observed, such as high variability of snow-water content (i.e., amount of water stored in snowpack), decrease in snowmelt runoff, glacier change (loss in area), rise in sea levels, increase in average lake water temperature and coastal ocean temperature, and a decrease in dissolved oxygen in coastal waters. Impacts of climate change on biological systems, including humans, wildlife, and vegetation, have also been observed, including climate change impacts on terrestrial, marine, and freshwater ecosystems.

In the City of Brentwood, specifically, the number of extreme heat days (defined as days where temperatures exceed 101.6 F) could reach an average of 37 days per year, as compared to the four days per year that have historically occurred. While California could not see the average annual precipitation changing significantly in the next 50 to 75 years, precipitation could likely be delivered in more intense storms and within a shorter wet season. For example, the 30-year average length of dry spell in the City is 116 days. By the end of the century, the average dry spell could be up to 132 days.[14]

Energy

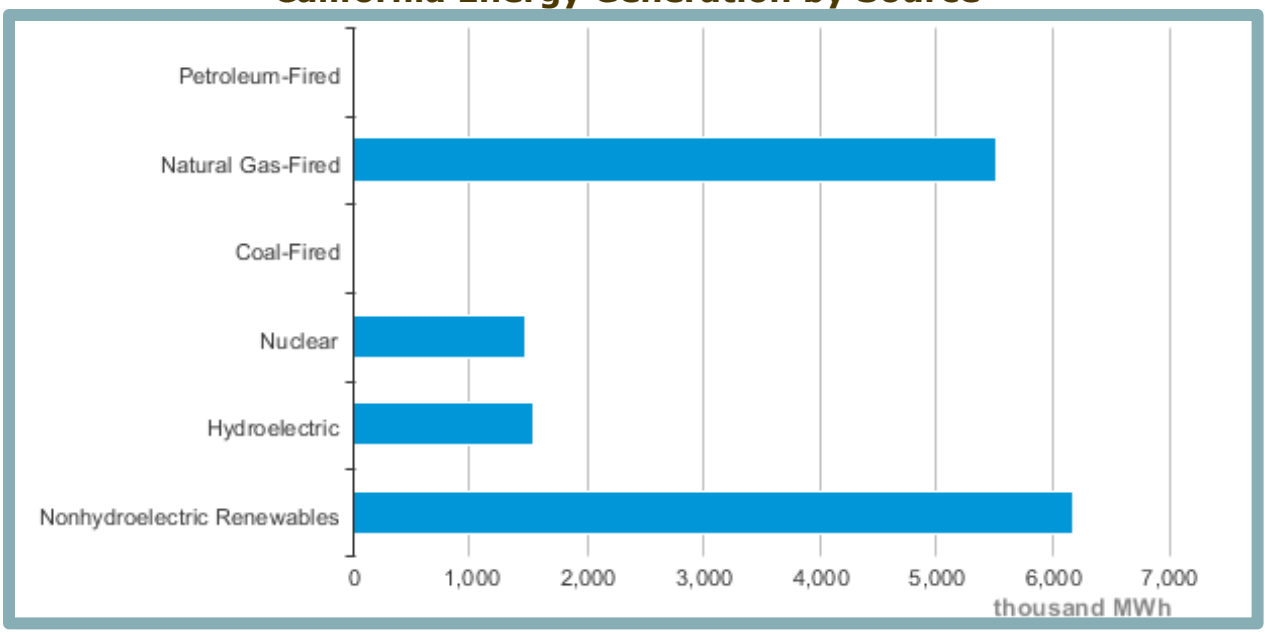
California is one of the highest energy demanding states within the nation. In the year 2020, the entire State consumed approximately 279,510.01 gigawatt-hours (GWh) of electricity. Activities such as heating and cooling structures, lighting, the movement of goods, agricultural production, and other facets of daily life consume a variety of energy sources. However, despite California's high rate of energy use, the State has one of the lowest per capita energy consumption levels in the U.S.

Energy within the State is provided primarily to consumers through a mix of sources including natural gas, hydroelectric, non-hydroelectric renewable sources, nuclear, coal, and petroleum. California is the nation's top producer of electricity from solar, geothermal, and biomass energy. In 2019, the State was also the nation's second-largest producer of electricity from conventional hydroelectric power and the fifth largest from wind energy. Renewable resources, including hydropower and small-scale (less than 1-megawatt), customer-sited solar photovoltaic (PV) systems, supplied more than half of California's in-state electricity generation, and natural gas-fired power plants provided two-fifths.

Figure 4.1-1 presents the sources that are used to produce energy in the State. As presented therein, energy is mostly generated from natural gas combustion, followed by non-hydroelectric renewables (such as wind and solar) and hydroelectric. Figure 4.1-2 presents energy consumption within California for the most recent year for which data is available (2019). As shown in the figure, transportation-related activity consumes the largest single share of energy within the State. The second largest consumer is the industrial sector.

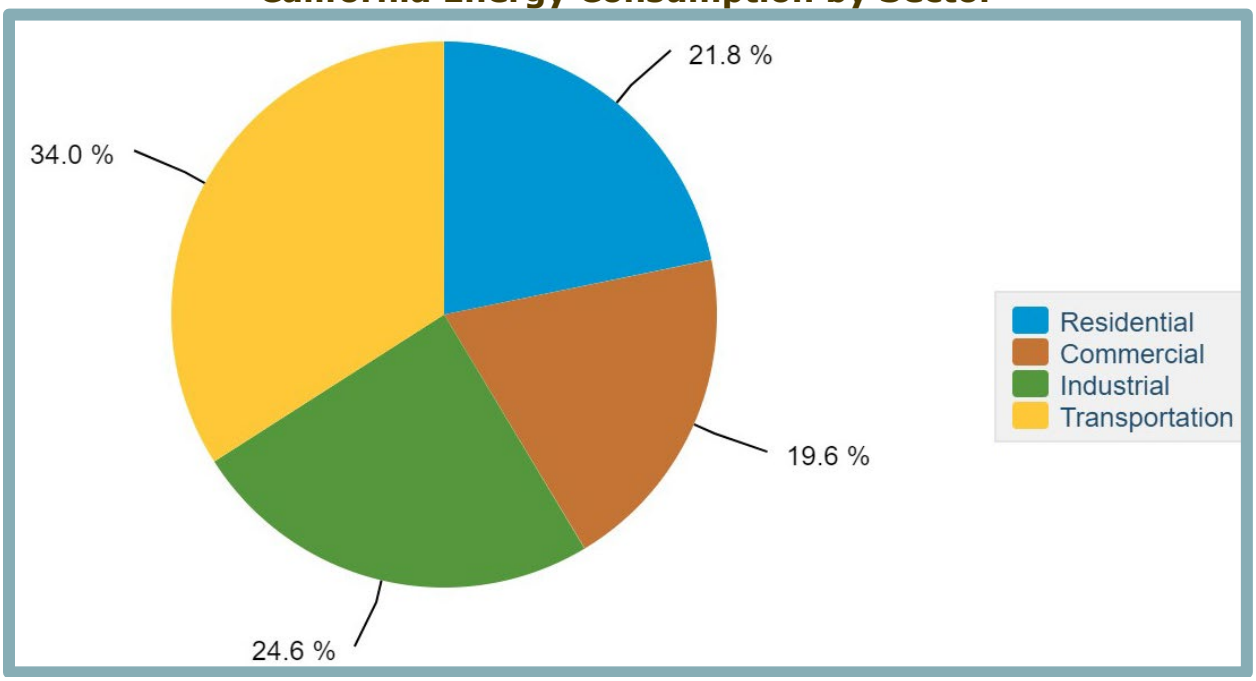
[14] Cal-Adapt. *Local Climate Change Snapshot for Brentwood, California*. Available at: https://cal-adapt.org/tools/local-climate-change-snapshot/. Accessed December 2022.

Figure 4.1-1
California Energy Generation by Source



Source: U.S. Energy Information Administration. California: State Profile and Energy Estimates. Accessible at: https://www.eia.gov/state/index.php?sid=CA. Accessed December 2022.

Figure 4.1-2
California Energy Consumption by Sector



Source: U.S. Energy Information Administration. California: State Profile and Energy Estimates. Accessible at: https://www.eia.gov/state/index.php?sid=CA. Accessed December 2022.

Of the total electricity supplied to the State in 2020, Contra Costa County consumed approximately 8,622 GWh, which constitutes approximately 3.08 percent of the total energy consumed within the State.[15]

Energy Consumption at the Project Site

The project site is currently vacant. As a result, energy is not consumed within the project site.

4.1.3 REGULATORY CONTEXT

Air quality, GHG emissions, and energy consumption are monitored and regulated through the efforts of various international, federal, State, and local government agencies. Agencies work jointly and individually to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for regulating and improving the air quality within the project area and monitoring or reducing GHG emissions and energy consumption are discussed below.

Federal Regulations Related to Air Quality

The following discussion provides a summary of the federal regulations relevant to air quality, organized by pollutant type.

Criteria Pollutants

The FCAA, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The USEPA is responsible for implementing most aspects of the FCAA, including setting NAAQS for major air pollutants; setting hazardous air pollutant standards; approving state attainment plans; setting motor vehicle emission standards; issuing stationary source emission standards and permits; and establishing acid rain control measures, stratospheric ozone protection measures, and enforcement provisions. Under the FCAA, NAAQS are established for the following criteria pollutants: ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for ozone, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for ozone, NO_2, SO_2, PM_{10}, $PM_{2.5}$ are based on statistical calculations over one- to three-year periods, depending on the pollutant. The FCAA requires the USEPA to reassess the NAAQS at least every five years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan that demonstrates how those areas will attain the standards within mandated time frames.

Hazardous Air Pollutants/Toxic Air Contaminants

The 1977 FCAA amendments required the USEPA to identify national emission standards for hazardous air pollutants to protect public health and welfare. Hazardous air pollutants include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 FCAA Amendments, which expanded the control program for hazardous air pollutants, 189 substances and chemical families were identified as hazardous air pollutants.

[15] California Energy Commission. *Electricity Consumption by County*. Available at: http://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed December 2022.

Federal Regulations Related to GHG Emissions

The following are the federal regulations relevant to GHG emissions.

Federal Vehicle Standards

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, USEPA, and National Highway Traffic Safety Administration (NHTSA) to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the USEPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017 through 2025 light-duty vehicles. The proposed standards were projected to achieve emission rates as low as 163 grams of CO_2 per mile by model year 2025 on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if the foregoing emissions level was achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017 through 2021 (77 FR 62624–63200), and NHTSA intended to set standards for model years 2022 through 2025 in future rulemaking.

In August 2016, the USEPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program would have applied to vehicles with model years 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types of sizes of buses and work trucks. The final standards were expected to lower CO_2 emissions by approximately 1.1 billion metric tons (MT), and reduce oil consumption by up to two billion barrels over the lifetime of the vehicles sold under the program.

In August 2018, the USEPA and NHTSA proposed to amend certain fuel economy and GHG standards for passenger cars and light trucks and establish new, less-stringent standards for model years 2021 through 2026. Compared to maintaining the post-2020 standards that were previously in place, the 2018 proposal would increase U.S. fuel consumption by approximately 0.5 million barrels per day, and would impact the global climate by 3/1000th of 1°C by 2100. California and other states stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures, and committed to cooperating with other countries to implement global climate change initiatives.

On September 27, 2019, the USEPA and NHTSA published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program (84 FR 51,310), which became effective November 26, 2019. The Part One Rule revokes California's authority to set its own GHG emissions standards and set zero-emission-vehicle mandates in California. On March 31, 2020, the USEPA and NHTSA issued the Part Two Rule, which sets CO_2 emissions standards and corporate average fuel economy standards for passenger vehicles and light-duty trucks for model years 2021 through 2026. On January 20, 2021, an Executive Order (EO) was issued on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, which includes review of the Part One Rule by April 2021 and review of the Part Two Rule by July 2021. In response to the Part One Rule, in December 2021, the U.S. Department of Transportation withdrew its portions of the "SAFE I" rule. As a result, states are now allowed to issue their own GHG emissions standards and zero-emissions vehicle mandates.[16] In addition, the Part Two Rule was adopted to revise the existing national GHG emission standards for

[16] National Highway Traffic Safety Administration. *In Removing Major Roadblock to State Action on Emissions Standards, U.S. Department of Transportation Advances Biden-Harris Administration's Climate and Jobs Goals.* Available at: https://www.nhtsa.gov/press-releases/cafe-preemption-final-rule. Accessed December 2022.

passenger cars and light trucks through model year 2026. These standards are the strongest vehicle emissions standards ever established for the light-duty vehicle sector and will result in avoiding more than three billion tons of GHG emissions through 2050.[17]

Federal Regulations Related to Energy

The following are the federal regulations relevant to energy.

Energy Policy and Conservation Act

The Energy Policy and Conservation Act was originally enacted in 1975 with the intention of ensuring that all vehicles sold in the U.S. meet established fuel economy standards. Following congressional establishment of the original set of fuel economy standards the U.S. Department of Transportation was tasked with establishing additional on-road vehicle standards and making revisions to standards as necessary. Compliance with established standards is based on manufacturer fleet average fuel economy, which originally applied to both passenger cars and light trucks but did not apply to heavy-duty vehicles exceeding 8,500 pounds in gross vehicle weight. The fuel economy program implemented under the Energy Policy and Conservation Act is known as the Corporate Average Fuel Economy (CAFE) Standards. Updates to the CAFE standards since original implementation have increased fuel economy requirements and begun regulation of medium- and heavy-duty vehicles.

Energy Policy Act of 2005

The Energy Policy Act of 2005 addressed energy production in the U.S. from various sources. In particular, the Energy Policy Act of 2005 included tax credits, loans, and grants for the implementation of energy systems that would reduce GHG emissions related to energy production.

State Regulations Related to Air Quality

The following discussion summarizes applicable State regulations related to air quality, organized by pollutant type. Only the most prominent and applicable California air quality-related legislation is included below; however, an exhaustive list and extensive details of California air quality legislation can be found at the CARB website (http://www.arb.ca.gov/html/lawsregs.htm).

Criteria Air Pollutants

The FCAA delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the CCAA of 1988, responding to the FCAA, and regulating emissions from motor vehicles and consumer products.

CARB has established CAAQS, which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. Air quality is considered “in attainment” if pollutant levels are continuously below the CAAQS and do not violate the standards more than once each year.

[17] U.S. Environmental Protection Agency. *Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026*. Available at: https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existing-national-ghg-emissions. Accessed December 2022.

The CAAQS for ozone, CO, SO_2 (one-hour and 24-hour), NO_2, PM_{10}, $PM_{2.5}$, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 4.1-2.

Hazardous Air Pollutants/Toxic Air Contaminants

The State Air Toxics Program was established in 1983 under AB 1807 (Tanner), and involved definition of a list of TACs. The California TAC list identifies more than 700 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. The State list of TACs includes the federally-designated hazardous air pollutants. In 1987, the Legislature enacted the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) to address public concern over the release of TACs into the atmosphere. AB 2588 law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hot spots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over five years. TAC emissions from individual facilities are quantified and prioritized. "High-priority" facilities are required to perform a health risk assessment, and, if specific thresholds are exceeded, the facility operator is required to communicate the results to the public in the form of notices and public meetings.

CARB Air Quality and Land Use Handbook

CARB's Air Quality and Land Use Handbook: A Community Health Perspective (CARB Handbook) addresses the importance of considering health risk issues when siting sensitive land uses, including residential development, in the vicinity of intensive air pollutant emission sources including freeways or high-traffic roads, distribution centers, ports, petroleum refineries, chrome plating operations, dry cleaners, and gasoline dispensing facilities.[18] The CARB Handbook draws upon studies evaluating the health effects of traffic traveling on major interstate highways in metropolitan California centers within Los Angeles (Interstate-405 and Interstate-710), the San Francisco Bay, and San Diego areas. The recommendations identified by CARB, including siting residential uses a minimum distance of 500 feet from freeways or other high-traffic roadways, are consistent with those adopted by the State of California for location of new schools. Specifically, the CARB Handbook recommends, "Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day".[19]

Importantly, the Introduction chapter of the CARB Handbook clarifies that the guidelines are strictly advisory, recognizing that: "[l]and use decisions are a local government responsibility. The Air Resources Board Handbook is advisory and these recommendations do not establish regulatory standards of any kind." CARB recognizes that there may be land use objectives as well as meteorological and other site-specific conditions that need to be considered by a governmental jurisdiction relative to the general recommended setbacks, specifically stating, "[t]hese recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues."[20]

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18 California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.
19 *Ibid.*
20 *Ibid.*

Diesel Particulate Matter

In 2000, CARB approved a comprehensive diesel risk reduction plan to reduce diesel emissions, including DPM, from new and existing diesel-fueled vehicles and engines. The regulation was anticipated to result in an 80 percent decrease in statewide diesel health risk by 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment program. The aforementioned regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. Several Airborne Toxic Control Measures (ATCMs) exist that reduce diesel emissions, including In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.) and In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025).

Heavy-Duty Diesel Truck and Bus Regulation

CARB adopted the final Heavy-Duty Truck and Bus Regulation, Title 13, Division 3, Chapter 1, Section 2025, on December 31, 2014, to reduce DPM and NO_X emissions from heavy-duty diesel vehicles. The rule requires nearly all diesel trucks and buses to be compliant with the 2010 model year engine requirement by January 1, 2023. CARB also adopted an ATCM to limit idling of diesel-fueled commercial vehicles on December 12, 2013. The rule requires diesel-fueled vehicles with gross vehicle weights greater than 10,000 pounds to idle no more than five minutes at any location (13 CCR 2485).

California Health and Safety Code Section 41700

Section 41700 of the Health and Safety Code states that a person must not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any of those persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property. Section 41700 also applies to sources of objectionable odors.

Heavy-Duty Vehicle Idling Emission Reduction Program

On October 20, 2005, CARB approved a regulatory measure to reduce emissions of toxics and criteria pollutants by limiting idling of new and in-use sleeper berth equipped diesel trucks.[21] The regulation established new engine and in-use truck requirements and emission performance requirements for technologies used as alternatives to idling the truck's main engine. For example, the regulation requires 2008 and newer model year heavy-duty diesel engines to be equipped with a non-programmable engine shutdown system that automatically shuts down the engine after five minutes of idling, or optionally meet a stringent NO_X emission standard. The regulation also requires operators of both in-state and out-of-state registered sleeper berth equipped trucks to manually shut down their engine when idling more than five minutes at any location within California. Emission producing alternative technologies such as diesel-fueled auxiliary power systems and fuel-fired heaters are also required to meet emission performance requirements that ensure emissions are not exceeding the emissions of a truck engine operating at idle.

[21] California Air Resources Board. *Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling*. October 24, 2013. Available at: https://ww2.arb.ca.gov/our-work/programs/atcm-to-limit-vehicle-idling. Accessed Janaury 2023.

In-Use Off-Road Diesel Vehicle Regulation

On July 26, 2007, CARB adopted a regulation to reduce DPM and NO_X emissions from in-use (existing), off-road, heavy-duty diesel vehicles in California.[22] Such vehicles are used in construction, mining, and industrial operations. The regulation is designed to reduce harmful emissions from vehicles by subjecting fleet owners to retrofit or accelerated replacement/repower requirements, imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. The idling limits require operators of applicable off-road vehicles (self-propelled diesel-fueled vehicles 25 horsepower and up that were not designed to be driven on-road) to limit idling to less than five minutes. The idling requirements are specified in Title 13 of the CCR.

State Regulations Related to GHG Emissions

The statewide GHG emissions regulatory framework is summarized below. The following text describes EOs, legislation, regulations, and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues. The following discussion does not include an exhaustive list of applicable regulations; rather, only the most prominent and applicable California legislation related to GHG emissions and climate change is included below.

State Climate Change Targets

California has taken a number of actions to address climate change, including EOs, legislation, and CARB plans and requirements, which are summarized below.

EO S-3-05

EO S-3-05 (June 2005) established California's GHG emissions reduction targets and laid out responsibilities among the State agencies for implementing the EO and for reporting on progress toward the targets. The EO established the following targets:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

EO S-3-05 also directed the California Environmental Protection Agency (CalEPA) to report biannually on progress made toward meeting the GHG targets and the impacts to California due to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. The Climate Action Team was formed, which subsequently issued reports from 2006 to 2010.

AB 32

In furtherance of the goals established in EO S-3-05, the Legislature enacted AB 32 (Núñez and Pavley). The bill is referred to as the California Global Warming Solutions Act of 2006 (September 27, 2006). AB 32 provided initial direction on creating a comprehensive, multi-year program to limit California's GHG emissions at 1990 levels by 2020 and initiate the transformations required to achieve the State's long-range climate objectives. AB 32 also required that the CARB prepare a "scoping plan" for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020. The CARB's Scoping Plan is described in further detail below.

[22] California Air Resources Board. *In-Use Off-Road Diesel Vehicle Regulation*. December 10, 2014..

EO B-30-15

EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under EO S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing GHG emissions to 40 percent below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80 percent below 1990 levels by 2050 as set forth in EO S-3-05. To facilitate achieving this goal, EO B-30-15 called for an update to the CARB's Climate Change Scoping Plan: A Framework for Change (Scoping Plan) to express the 2030 target in terms of million metric tons (MMT) CO_2e. The CARB's Scoping Plan is discussed in further detail below. The EO also called for State agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets.

Senate Bill (SB) 32 and AB 197

SB 32 and AB 197 (enacted in 2016) are companion bills. SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, to provide ongoing oversight over implementation of the State's climate policies. AB 197 also added two members of the Legislature to the Board as non-voting members; requires CARB to make available and update (at least annually via the CARB's website) emissions data for GHGs, criteria air pollutants, and TACs from reporting facilities; and requires CARB to identify specific information for GHG emissions reduction measures when updating the Scoping Plan.

CARB's Climate Change Scoping Plan

One specific requirement of AB 32 is for CARB to prepare a scoping plan for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020 (Health and Safety Code Section 38561[a]), and to update the Scoping Plan at least once every five years. In 2008, CARB approved the first Scoping Plan. The Scoping Plan included a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the State's long-range climate objectives. The key elements of the Scoping Plan include the following:

1. Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
2. Achieving a statewide renewable energy mix of 33 percent;
3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions;
4. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets;
5. Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard (LCFS) (17 CCR Section 95480, et seq.); and
6. Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

The Scoping Plan also identified local governments as essential partners in achieving California's goals to reduce GHG emissions because they have broad influence and, in some cases, exclusive authority over activities that contribute to significant direct and indirect GHG emissions through their planning and permitting processes, local ordinances, outreach and education efforts, and municipal operations. Specifically, the Scoping Plan encouraged local governments to adopt a reduction goal for municipal operations and for community emissions to reduce GHGs by approximately 15 percent from 2008 levels by 2020. Many local governments developed community-scale local GHG reduction plans based on this Scoping Plan recommendation.

In 2014, CARB approved the first update to the Scoping Plan. The First Update to the Climate Change Scoping Plan: Building on the Framework (First Update) defined the State's GHG emission reduction priorities for the next five years and laid the groundwork to start the transition to the post-2020 goals set forth in EO S-3-05 and EO B-16-2012. The First Update concluded that California is on track to meet the 2020 target but recommended a 2030 mid-term GHG reduction target be established to ensure a continuation of action to reduce emissions. The First Update recommended a mix of technologies in key economic sectors to reduce emissions through 2050, including energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies. As part of the First Update, CARB recalculated the State's 1990 emissions level using more recent GWPs identified by the IPCC, from 427 MMT CO_2e to 431 MMT CO_2e.

In 2015, as directed by EO B-30-15, CARB began working on an update to the Scoping Plan to incorporate the 2030 target of 40 percent below 1990 levels by 2030 to keep California on a trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80 percent below 1990 levels by 2050, as set forth in EO S-3-05. In summer 2016, the Legislature affirmed the importance of addressing climate change through passage of SB 32 (Pavley, Chapter 249, Statutes of 2016).

In December 2017, CARB adopted California's 2017 Climate Change Scoping Plan (2017 Scoping Plan) for public review and comment. The 2017 Scoping Plan builds on the successful framework established in the initial Scoping Plan and First Update while identifying new, technologically feasible and cost-effective strategies that will serve as the framework to achieve the 2030 GHG target as established by SB 32 and define the State's climate change priorities to 2030 and beyond. For local governments, the 2017 Scoping Plan replaced the initial Scoping Plan's 15 percent reduction goal with a recommendation to aim for a community-wide goal of no more than six $MTCO_2e$ per capita by 2030, and no more than two $MTCO_2e$ per capita by 2050, which are consistent with the State's long-term goals.

The 2022 Scoping Plan Update was adopted by the CARB in December 2022.[23] The 2022 Scoping Plan builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. The 2022 Scoping Plan lays out a path to achieve targets for carbon neutrality and reduce GHG emissions by 85 percent below 1990 levels by 2045, as directed by AB 1279. The actions and outcomes in the plan will achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development,

[23] California Air Resources Board. *2022 Scoping Plan Documents*. Available at: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents. Accessed December 2022.

increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

CARB's Regulations for the Mandatory Reporting of GHG Emissions

CARB's Regulation for the Mandatory Reporting of GHG Emissions (17 CCR 95100–95157) incorporated by reference certain requirements that the USEPA promulgated in its Final Rule on Mandatory Reporting of GHGs (40 Code of Federal Regulations [CFR] Part 98). In general, entities subject to the Mandatory Reporting Regulation that emit more than 10,000 $MTCO_2e$ per year are required to report annual GHGs through the California Electronic GHG Reporting Tool. Certain sectors, such as refineries and cement plants, are required to report regardless of emission levels. Entities that emit more than the 25,000 $MTCO_2e$ per year threshold are required to have their GHG emission report verified by a CARB-accredited third party.

SB 1383

SB 1383 establishes specific targets for the reduction of short-lived climate pollutants (SLCPs) (40 percent below 2013 levels by 2030 for CH_4 and hydrofluorocarbons (HFCs), and 50 percent below 2013 levels by 2030 for anthropogenic black carbon), and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, CARB adopted its SLCP Reduction Strategy in March 2017. The SLCP Reduction Strategy establishes a framework for the statewide reduction of emissions of black carbon, CH_4, and fluorinated gases.

EO B-55-18/AB 1279

EO B-55-18 (September 2018) establishes a statewide policy for California to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net-negative emissions thereafter. The goal is an addition to the existing statewide targets of reducing the State's GHG emissions. CARB intends to work with relevant State agencies to ensure that future scoping plan updates identify and recommend measures to achieve the carbon neutrality goal. On September 16, 2022, AB 1279, also known as the California Climate Crisis Act, codified the carbon neutrality goal established by EO B-55-18.

Mobile Sources

The following regulations relate to the control of GHG emissions from mobile sources. Mobile sources include both on-road vehicles and off-road equipment.

AB 1493

AB 1493 (Pavley) (July 2002) was enacted in response to the transportation sector accounting for more than half of California's CO_2 emissions. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the State board to be vehicles that are primarily used for non-commercial personal transportation in the State. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. When fully phased in, the near-term (2009–2012) standards would result in a reduction of approximately 22 percent of GHG emissions compared to the emissions from the 2002 fleet, and the mid-term (2013–2016) standards would result in a reduction of approximately 30 percent.

SB 375

SB 375 (Steinberg) (September 2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 requires

CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035, and to update those targets every eight years. SB 375 requires the State's 18 regional metropolitan planning organizations to prepare a sustainable communities strategy as part of their Regional Transportation Plans that will achieve the GHG reduction targets set by CARB. If a metropolitan planning organization is unable to devise a sustainable communities strategy to achieve the GHG reduction target, the metropolitan planning organization must prepare an alternative planning strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to California Government Code Section 65080(b)(2)(K), a sustainable communities strategy does not (1) regulate the use of land, (2) supersede the land use authority of cities and counties, or (3) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with the sustainable community strategy. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the State-mandated housing element process.

Advanced Clean Cars Program and Zero-Emissions Vehicle Program

The Advanced Clean Cars program (January 2012) is an emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. By 2025, implementation of the rule is anticipated to reduce emissions of smog-forming pollution from cars by 75 percent compared to the average new car sold in 2015. To reduce GHG emissions, CARB, in conjunction with the USEPA and NHTSA, adopted GHG standards for model year 2017 to 2025 vehicles; the standards were estimated to reduce GHG emissions by 34 percent by 2025. The zero-emissions vehicle program acts as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of zero-emissions vehicles and plug-in hybrid electric vehicles in the 2018 to 2025 model years.

EO B-16-12

EO B-16-12 (March 2012) required that State entities under the governor's direction and control support and facilitate the rapid commercialization of zero-emissions vehicles. The order directed CARB, California Energy Commission (CEC), California Public Utilities Commission (CPUC), and other relevant agencies to work with the Plug-In Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. EO B-16-12 did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare.

AB 1236

AB 1236 (October 2015) (Chiu) required a city, county, or city and county to approve an application for the installation of electric-vehicle charging stations, as defined, through the issuance of specified permits unless the city or county makes specified written findings based on substantial evidence in the record that the proposed installation would have a specific, adverse

impact upon the public health or safety, and a feasible method to satisfactorily mitigate or avoid the specific, adverse impact does not exist. The bill provided for appeal of that decision to the planning commission, as specified. AB 1236 required electric-vehicle charging stations to meet specified standards. The bill required a city, county, or city and county with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that created an expedited and streamlined permitting process for electric-vehicle charging stations. The bill also required a city, county, or city and county with a population of less than 200,000 residents to adopt the ordinance by September 30, 2017. The City of Brentwood's Electric Vehicle Charging Stations ordinance (Brentwood Municipal Code Chapter 15.14) was adopted in 2017.

Water

The following regulations relate to the conservation of water, which reduces GHG emissions related to electricity demands from the treatment and transportation of water.

EO B-29-15

In response to a drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25 percent relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives subsequently became permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the State. In response to EO B-29-15, the California Department of Water Resources modified and adopted a revised version of the Model Water Efficient Landscape Ordinance (MWELO) that, among other changes, significantly increases the requirements for landscape water use efficiency, and broadens the applicability of the ordinance to include new development projects with smaller landscape areas. The City of Brentwood adopted the MWELO via enactment of Brentwood Municipal Code Section 17.630.010 in 2017.

Solid Waste

The following regulations relate to the generation of solid waste and means to reduce GHG emissions from solid waste produced within the State.

AB 939 and AB 341

In 1989, AB 939, known as the Integrated Waste Management Act (California Public Resources Code [PRC] Sections 40000 et seq.), was passed because of the observed increase in waste stream and the decrease in landfill capacity.

AB 341 (Chapter 476, Statutes of 2011 [Chesbro]) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that the policy goal of the State is that not less than 75 percent of solid waste generated be source-reduced, recycled, or composted by 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery to develop strategies to achieve the State's policy goal.

Other State Actions

The following State regulations are broadly related to GHG emissions.

SB 97

SB 97 (Dutton) (August 2007) directed the Governor's Office of Planning and Research (OPR) to develop guidelines under CEQA for the mitigation of GHG emissions. In 2008, the Governor's

OPR issued a technical advisory as interim guidance regarding the analysis of GHG emissions in CEQA documents. The advisory indicated that the lead agency should identify and estimate a project's GHG emissions, including those associated with vehicular traffic, energy consumption, water usage, and construction activities. The advisory further recommended that the lead agency determine the significance of the impacts and impose all mitigation measures necessary to reduce GHG emissions to a level that is less than significant. The California Natural Resource Agency (CNRA) adopted the CEQA Guidelines amendments in December 2009, and the amended CEQA Guidelines became effective in March 2010.

Under the amended CEQA Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis, or apply performance standards to determine the significance of GHG emissions resulting from a particular project (14 CCR 15064.4[a]). The CEQA Guidelines require a lead agency to consider the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]). The CEQA Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures. The adopted amendments do not establish a GHG emission threshold, instead allowing a lead agency to develop, adopt, and apply the lead agency's own thresholds of significance or those developed by other agencies or experts. CNRA acknowledges that a lead agency may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions.

With respect to GHG emissions, the CEQA Guidelines state that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions (14 CCR 15064.4[a]). The CEQA Guidelines note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance-based standards" (14 CCR 15064.4[a]). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment: (1) the extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]).

EO S-13-08

EO S-13-08 (November 2008) is intended to hasten California's response to the impacts of global climate change, particularly sea-level rise. Therefore, the EO directs State agencies to take specified actions to assess and plan for such impacts. The final 2009 California Climate Adaptation Strategy report was issued in December 2009, and an update, Safeguarding California: Reducing Climate Risk, followed in July 2014. To assess the State's vulnerability, the report summarizes key climate change impacts to the State for the following areas: agriculture, biodiversity and habitat, emergency management, energy, forestry, ocean and coastal ecosystems and resources, public health, transportation, and water. Issuance of the Safeguarding California: Implementation Action Plans followed in March 2016. In January 2018, the CNRA released the Safeguarding California Plan: 2018 Update, which communicates current and needed actions that the State government should take to build climate change resiliency.

State Regulations Related to Energy

The primary State regulatory agencies governing energy consumption are the CEC and the CPUC.

The CEC, created by the Legislature in 1974, has seven major responsibilities: forecasting future energy needs; promoting energy efficiency and conservation by setting the State's appliance and building energy efficiency standards; supporting energy research that advances energy science and technology through research, development, and demonstration projects; developing renewable energy resources; advancing alternative and renewable transportation fuels and technologies; certifying thermal power plants 50 MW and larger; and planning for and directing State response to energy emergencies.[24]

The CPUC regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies. The CPUC is responsible for ensuring that customers have safe, reliable utility service and infrastructure at reasonable rates, regulating utility services, stimulating innovation, and promoting competitive markets.[25]

The State has adopted various regulations aimed at reducing energy consumption, increasing energy efficiency, and mandating sourcing requirements for electricity production. The following regulations are applicable to the proposed project.

Building Energy

The following regulations relate to energy efficiency and energy use reductions in the built environment.

Title 24, Part 6

Title 24 of the CCR, which is known as the California Building Standards Code (CBSC), was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed periodically, and revised, if necessary, by the Building Standards Commission and CEC (PRC Section 25402[b][1]). The regulations receive input from members of industry, as well as the public, with the goal of "reduc[ing] the wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (PRC Section 25402). The regulations are scrutinized and analyzed for technological and economic feasibility (PRC Section 25402[d]) and cost effectiveness (PRC Sections 25402[b][2] and [b][3]). As a result, the standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

The 2022 Title 24 standards are the currently applicable building energy efficiency standards and became effective on January 1, 2023. Compliance with the 2022 Title 24 Building Energy Efficiency Standards will reduce energy use and associated GHG emissions compared to structures built in compliance with the previous 2019 Title 24 standards.

[24] California Energy Commission. *About the California Energy Commission*. Available at: http://www.energy.ca.gov/about. Accessed December 2022.
[25] California Public Utilities Commission. *California Public Utilities Commission*. Available at: https://www.cpuc.ca.gov/about-cpuc. Accessed December 2022.

Title 24, Part 11

In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CALGreen, and establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential and State-owned buildings and schools and hospitals. The original CALGreen standards have been updated several times. The CALGreen 2022 standards, which are the current standards, improved upon the 2019 CALGreen standards, and went into effect on January 1, 2023. The 2022 CALGreen Code focuses on four key areas in newly constructed homes and businesses:[26]

- Encouraging electric heat pump technology for space and water heating, which consumes less energy and produces fewer emissions than gas-powered units.
- Establishing electric-ready requirements for single-family homes to position owners to use cleaner electric heating, cooking and electric vehicle (EV) charging options whenever they choose to adopt those technologies.
- Expanding solar PV system and battery storage standards to make clean energy available onsite and complement the state's progress toward a 100 percent clean electricity grid.
- Strengthening ventilation standards to improve indoor air quality.

The CALGreen standards also include voluntary efficiency measures that are provided at two tiers and implemented at the discretion of local agencies and applicants. According to Section A4.602 of Appendix A4 of the CALGreen Code, CALGreen's Tier 1 standards call for a 15 percent improvement in energy requirements, stricter water conservation, 65 percent diversion of construction and demolition waste, 10 percent recycled content in building materials, 20 percent permeable paving, 20 percent cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30 percent improvement in energy requirements, stricter water conservation, 80 percent diversion of construction and demolition waste, 15 percent recycled content in building materials, 30 percent permeable paving, 25 percent cement reduction, and cool/solar-reflective roofs.

Title 20

Title 20 of the CCR requires manufacturers of appliances to meet State and federal standards for energy and water efficiency. The CEC certifies an appliance based on a manufacturer's demonstration that the appliance meets the standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwaters; clothes washers and dryers; cooking products; electric motors; low-voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing each type of appliance covered under the regulations, and appliances must meet the standards for energy performance, energy design, water performance,

[26] California Energy Commission. *Energy Commission Adopts Updated Building Standards to Improve Efficiency, Reduce Emissions From Homes and Businesses.* Available at: https://www.energy.ca.gov/news/2021-08/energy-commission-adopts-updated-building-standards-improve-efficiency-reduce-0. Accessed December 2022.

and water design. Title 20 contains three types of standards for appliances: federal and State standards for federally regulated appliances, State standards for federally regulated appliances, and State standards for non-federally regulated appliances.

SB 1

SB 1 (Murray) (August 2006) established a $3 billion rebate program to support the goal of the State to install rooftop solar energy systems with a generation capacity of 3,000 megawatts through 2016. SB 1 added sections to the PRC, including Chapter 8.8 (California Solar Initiative), that require building projects applying for ratepayer-funded incentives for PV systems to meet minimum energy efficiency levels and performance requirements. Section 25780 established that it is a goal of the State to establish a self-sufficient solar industry. The goals included establishing solar energy systems as a viable mainstream option for homes and businesses within 10 years of adoption, and placing solar energy systems on 50 percent of new homes within 13 years of adoption. SB 1, also termed "Go Solar California," was previously titled "Million Solar Roofs."

AB 1109

Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general-purpose lighting to reduce electricity consumption by 50 percent for indoor residential lighting and by 25 percent for indoor commercial lighting.

Climate Change Scoping Plan

Expanding and strengthening existing energy efficiency programs as well as building and appliance standards is the key element of the Scoping Plan, as introduced above, related to building energy.

Transportation/Fuel Energy

The following regulations relate to fuel efficiency and energy use reductions in the transportation and motorized vehicle sector.

AB 1493

In 2002 California adopted AB 1493, also known as the Pavley I standards, which required new passenger vehicles with model years 2009 to 2016 to meet more stringent fuel efficiency standards. Additional laws have extended these rules to cover vehicles from future model years.

EO S-1-07

EO S-1-07, otherwise known as the Low Carbon Fuel Standard (LCFS), was adopted in 2009 and requires transportation fuels such as gasoline and diesel sold within the state to be less carbon intensive.

EO B-16-12

EO B-16-12 (March 2012) required that State entities under the governor's direction and control support and facilitate the rapid commercialization of zero-emissions vehicles. The order directed CARB, CEC, CPUC, and other relevant agencies to work with the Plug-In Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. EO B-16-12 did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare.

AB 1346
AB 1346 (October 2021) prohibits non-electric small off-road engines. Small off-road engines, which are used primarily in lawn and garden equipment, emit high levels of air pollutants and, in 2020, California daily criteria pollutant emissions from small off-road engines were higher than emissions from light-duty passenger cars. Thus, by January 1, 2024, regulations shall prohibit engine exhaust and evaporative emissions from new small off-road engines.

SB 500
SB 500 (September 2021) requires that, beginning January 1, 2030, to the extent allowed by federal law, any autonomous vehicle that is model year 2031 or later, has a gross vehicle weight rating of less than 8,501 pounds, and is equipped with Level 3, 4, or 5 automation (as defined by the International Society of Automotive Engineers) to be a zero-emission vehicle to be operated on California public roads.

Climate Change Scoping Plan
The key elements of the Scoping Plan, as introduced above, related to transportation energy include the following:

1. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets; and
2. Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the LCFS (17 CCR Section 95480, et seq.).

Renewable Energy and Energy Procurement
The following regulation relates to the source of electricity provided to consumers within the State, as well as standards related to the generation of electricity within the State.

Renewable Portfolio Standard (RPS), SB 350, and SB 100
Established in 2002 under SB 1078, accelerated in 2006 under SB 107, and expanded in 2011 under SB 2, California's RPS is one of the most ambitious renewable energy standards in the country. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020.

Since the inception of the RPS program, the program has been extended and enhanced multiple times. In 2015, SB 350 extended the State's RPS program by requiring that publicly owned utilities procure 50 percent of their electricity from renewable energy sources by 2030. The requirements of SB 350 were expanded and intensified in 2018 through the adoption of SB 100, which mandated that all electricity generated within the State by publicly owned utilities be generated through carbon-free sources by 2045. In addition, SB 100 increased the previous renewable energy requirement for the year 2030 by 10 percent; thus, requiring that 60 percent of electricity generated by publicly owned utilities originate from renewable sources by the year 2030.

Local Regulations
The following are the regulatory agencies and regulations pertinent to the proposed project on a local level.

Plan Bay Area 2050

Plan Bay Area 2050 (The Plan) is a long-range transportation and land use/housing strategy through 2050 for the San Francisco Bay Area, designed to reduce GHG emissions from the mobile sector.[27] The Plan was approved by the MTC and the ABAG on October 21, 2021. The Plan also meets all State and federal requirements for a Regional Transportation Plan and Sustainable Communities Strategy.

Plan Bay Area 2050 provides an outline for growth in four focus areas: Priority Development Areas (PDA); Transit-Rich Areas; Priority Production Areas; and High-Resource Areas. The project site is not located within a PDA. According to the Plan Bay Area 2050 Forecasting and Modeling Appendix, housing in Contra Costa County is projected to increase by 169,000 households, or 44 percent, and jobs are projected to increase by 130,000, or 32 percent.[28]

Local jurisdictions seeking to implement development projects consistent with The Plan are eligible for funding for PDA planning and transportation projects. In addition, jurisdictions have the option to streamline the development process for projects consistent with The Plan and meet the other criteria included in SB 375.

Bay Area Air Quality Management District

The BAAQMD is the public agency entrusted with regulating air pollution in the nine counties that surround San Francisco Bay: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, southwestern Solano, and southern Sonoma counties.

The BAAQMD has prepared Air Quality Guidelines, which are intended to be used for assistance with CEQA review. The BAAQMD Air Quality Guidelines include thresholds of significance and project screening levels for criteria air pollutants (ROG, NO_X, PM_{10}, and $PM_{2.5}$), GHGs, TACs, CO, and odors, as well as methods to assess and mitigate project-level and plan-level impacts. The most recent BAAQMD Air Quality Guidelines were released in April 2023.

Regional Air Quality Plans

As discussed above, the 2001 Ozone Attainment Plan was prepared as a revision to the Bay Area part of the SIP to achieve the federal ozone standard. The plan was adopted on October 24, 2001, approved by the CARB on November 1, 2001, and was submitted to the USEPA on November 30, 2001 for review and approval as a revision to the SIP. In addition, in order to fulfill federal air quality planning requirements, the BAAQMD adopted a $PM_{2.5}$ emissions inventory for the year 2010, which was submitted to the USEPA on January 14, 2013 for inclusion in the SIP.

The most recent State ozone plan is the 2017 Clean Air Plan, adopted on April 19, 2017. The 2017 Clean Air Plan was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, TACs, and GHGs. Although the CCAA does not require the region to submit a plan for achieving the State PM_{10} standard, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2017 Clean Air Plan. It should be noted that on January 9, 2013, the USEPA issued a final rule to determine that the San Francisco Bay Area has attained the 24-hour $PM_{2.5}$ federal standard, which suspends federal SIP planning requirements for the Bay Area.

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[27] Association of Bay Area Governments and Metropolitan Transportation Commission. *Plan Bay Area 2050: Final.* October 2021.

[28] Association of Bay Area Governments and Metropolitan Transportation Commission. *Forecasting and Modeling Report, Appendix 1: Growth Pattern*. October 2021.

The aforementioned applicable air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the State and federal standards within the SFBAAB. The plans are based on population and employment projections provided by local governments, usually developed as part of the General Plan update process.

Rules and Regulations

All projects under the jurisdiction of the BAAQMD are required to comply with all applicable BAAQMD rules and regulations. Applicable BAAQMD's regulations and rules include, but are not limited to, the following:

- Regulation 2: Permits
  - Rule 5: New Source Review of Toxic Air Contaminates
- Regulation 6: Particulate Matter and Visible Emissions
  - Rule 2: Commercial Cooking Equipment
  - Rule 3: Wood-burning Devices
- Regulation 7: Odorous Substances
- Regulation 8: Organic Compounds
  - Rule 3: Architectural Coatings
- Regulation 11: Hazardous Pollutants
  - Rule 2: Asbestos Demolition, Renovation and Manufacturing

Additionally, all projects within BAAQMD jurisdiction are required to implement the Basic Construction Mitigation Measures (BCMMs), which include the following:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
7. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
8. Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a six- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
9. Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

In addition to the BCMMs, projects are strongly encouraged to implement enhanced best management practices to control fugitive dust emissions. The enhanced measures are especially

important when schools, residential areas, or other sensitive land uses are located near the construction site. BAAQMD recommended enhanced best management practices include the following:

1. Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities.
2. Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.
3. Plant vegetative ground cover (e.g., fast-germinating native grass seed) in disturbed areas as soon as possible and watered appropriately until vegetation is established.
4. Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.
5. Minimize the amount of excavated material or waste materials stored at the site.
6. Hydroseed or apply non-toxic soil stabilizers to construction areas, including previously graded areas, that are inactive for at least 10 calendar days.

City of Brentwood General Plan

The following goals and policies related to air quality, GHG emissions, and energy are from the City of Brentwood General Plan:

Circulation

The Circulation element of the Brentwood General Plan includes the following goals related to air quality, GHG emissions, and energy.

Goal CIR 2 Proactively support and encourage travel by non-automobile modes by maintaining and expanding safe and efficient pedestrian, bicycle, equestrian, and transit networks.

Goal CIR 3 Coordinate circulation facilities with land use and development patterns to create an environment that encourages walking, bicycling, and transit use.

Conservation and Open Space

The Conservation and Open Space element of the Brentwood General Plan includes the following goals related to air quality, GHG emissions, and energy.

Goal COS 8 Reduce air pollutants and greenhouse gas (GHG) emissions.

Policy COS 8-1: Improve air quality through continuing to require a development pattern that focuses growth in and around existing urbanized areas, locating new housing near places of employment, encouraging alternative modes of transportation, and requiring projects to mitigate significant air quality impacts.

Policy COS 8-2: Minimize exposure of sensitive receptors to concentrations of air pollutant emissions and toxic air contaminants.

Policy COS 8-3: Require discretionary projects involving sensitive receptors such as children, the elderly, or people with illnesses that are proposed within 500 feet of the State Route 4 corridor to include an analysis of mobile source toxic air contaminant health risks.

The analysis, if necessary, shall identify feasible mitigation measures to reduce health risks to acceptable levels.

Policy COS 8-4: Encourage new development or significant remodels to install fireplaces, wood stoves, and/or heaters which meet Bay Area Air Quality Management District (BAAQMD) standards.

Policy COS 8-5: Continue to require all construction projects and ground disturbing activities to implement BAAQMD dust control and abatement measures.

Policy COS 8-6: Support the development and implementation of a GHG reduction plan, or Climate Action Plan, that addresses and reduces GHG emissions associated with community operations, including but not limited to, mobile sources (vehicle traffic), energy consumption, and solid waste.

Policy COS 8-7: Coordinate with Contra Costa County and nearby cities to implement regional GHG reduction plans and consolidate efforts to reduce GHGs throughout the county.

Policy COS 8-9: Preserve, protect, and enhance, as appropriate, the City's carbon sequestration resources, also referred to as "carbon sinks," to improve air quality and reduce net carbon emissions.

Policy COS 8-10: Encourage public transit, ridesharing and van pooling, shortened and combined motor vehicle trips to work and services, use of bicycles, and walking. Minimize single passenger motor vehicle use.

Policy COS 8-11: Encourage new construction to incorporate passive solar features.

Goal COS 9: Promote conservation of energy and other natural resources.

Policy COS 9-1: Require all new public and privately constructed buildings to meet and comply with the most current "green" development standards in the California Code of Regulations (CCR), Title 24.

Policy COS 9-2: Support innovative and green building best management practices including, but not limited to, LEED certification for all new development, and encourage project applicants to exceed the most current "green" development standards in the California Code of Regulations (CCR), Title 24, if feasible.

Policy COS 9-3: Promote the use of alternative energy sources in new development.

Policy COS 9-4: Incorporate innovative green building techniques and best management practices in the site design, construction, and renovation of all public projects.

Policy COS 9-5: Promote water conservation among water users.

Policy COS 9-6: Continue to require new development to incorporate water efficient fixtures into design and construction.

Policy COS 9-7: Promote the use of reclaimed water and other non-potable water sources.

Policy COS 9-8: Encourage large-scale developments and golf course developments to incorporate dual water systems.

Policy COS 9-9: Encourage and support the use of drought-tolerant and regionally native plants in landscaping.

Policy COS 9-10: Ensure that the layout and design of new development and significant remodels encourages the use of transportation modes other than automobiles and trucks.

Policy COS 9-11: Continue the citywide recycling program and actively encourage recycling.

Policy COS 9-12: Continue efforts to reduce solid waste generation throughout the life of the General Plan.

Policy COS 9-13: Continue to encourage and support the use of bicycles as an alternative means of transportation.

4.1.4 IMPACTS AND MITIGATION MEASURES

This section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to air quality, GHG emissions, and energy. A discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Based on Appendix G of the CEQA Guidelines, an impact related to air quality, GHG emissions, or energy is considered significant if the proposed project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State AAQS;
- Expose sensitive receptors to substantial pollutant concentrations;
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people;
- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment;

- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs;
- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources; or
- Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Criteria Pollutant Emissions

The BAAQMD thresholds of significance for ozone precursor and PM emissions are presented in Table 4.1-6 and are expressed in pounds per day (lbs/day) for construction and operational average daily emissions and tons per year (tons/year) for maximum annual operational emissions. In addition to the thresholds of significance presented below for criteria air pollutants of particular concern for the Bay Area, BAAQMD has developed thresholds for GHG emissions, localized CO emissions, and TACs. Pursuant to CEQA Guidelines Section 15064.4(b)(2), the lead agency is charged with determining a threshold of significance that is applicable to the project. Although the City has not formally adopted BAAQMD's recommended thresholds, the thresholds are uniformly applied to all new developments within the City, and, as such, the BAAQMD's thresholds are used in the analysis presented within this REIR, as well.

Table 4.1-6
BAAQMD Thresholds of Significance

Pollutant	Construction	Operational	
	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO_X	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10

Source: BAAQMD, CEQA Guidelines, April 2023.

Localized CO Emissions

If a project would cause localized CO emissions to exceed the 1-hour and 8-hour CAAQS of 20.0 ppm and 9.0 ppm, respectively, BAAQMD would consider the project to result in a significant impact to air quality. In order to provide a conservative indication of whether a project would result in localized CO emissions that would exceed the applicable threshold of significance, the BAAQMD has established screening criteria for localized CO emissions. According to BAAQMD, a project would result in a less-than-significant impact related to localized CO emission concentrations if the following screening criteria are met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

TAC Emissions

According to BAAQMD, a significant impact related to TACs would occur if a new source would cause any of the following:

- An increase in cancer risk levels of more than 10 persons in one million;
- A non-cancer (chronic or acute) hazard index greater than 1.0; or
- An annual average $PM_{2.5}$ concentration of 0.3 micrograms per cubic meter ($\mu g/m^3$) or greater.

An impact associated with TACs would also occur if the aggregate total of all past, present, and foreseeable future sources within a 1,000-foot radius from the fence line of a source, or from the location of a receptor, plus the contribution from the project, would exceed the following:

- An increase in cancer risk levels (from all local sources) of more than 100 persons in one million;
- A chronic non-cancer hazard index (from all local sources) greater than 10.0; or
- An annual average $PM_{2.5}$ concentration (from all local sources) of 0.8 $\mu g/m^3$ or greater.

The foregoing risk thresholds are intended for use in analyzing potential impacts related to the siting of a new source of emissions. The proposed project involves development of the project site for residential uses, which are not anticipated to involve any substantial stationary sources of TACs. Thus, the BAAQMD thresholds presented above would not directly apply to the proposed uses.

GHG Emissions

As noted previously, in April 2023 the BAAQMD adopted updated CEQA Air Quality Guidelines. The updated guidelines included new GHG thresholds, which are qualitative and consist of two distinct categories of criteria that must be met: Buildings and Transportation.

The BAAQMD's Buildings criteria require that a project must meet the following minimum project design elements:

a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
b. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

The BAAQMD's Transportation criteria require that a project must meet the following:

a. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:
    i. Residential projects: 15 percent below the existing VMT per capita;
    ii. Office projects: 15 percent below the existing VMT per employee; or
    iii. Retail projects: no net increase in existing VMT.

b. Achieve compliance with off-street EV requirements in the most recently adopted version of CALGreen Tier 2.

Alternatively, a project is not required to implement the foregoing design elements if the project shows consistency with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Energy

Quantitative thresholds for the analysis of potential impacts related to energy consumption have not been adopted by any local, regional, or statewide entities. Consequently, potential impacts of the project related to energy are determined based on whether the project would result in wasteful, inefficient, or unnecessary use of energy. In addition, the potential for the project to conflict with or obstruct a State or local plan for renewable energy generation or energy efficiency is considered. The analysis of energy consumption includes consideration of energy demand during project construction and operations.

Method of Analysis

A comparison of project-related emissions to the thresholds discussed above shall determine the significance of the potential impacts to air quality and climate change resulting from the proposed project. Emissions attributable to the proposed project which exceed the significance thresholds could have a significant effect on regional air quality and the attainment of the federal and State AAQS. Where potentially significant air quality impacts are identified, mitigation measures are described that would reduce or eliminate the impact.

Construction and Operational Criteria Pollutant and GHG Emissions

The analysis included in this chapter is primarily based on an Air Quality Report prepared for the proposed project by Ramboll. Ramboll estimated the proposed project's short-term construction emissions and operational emissions using the CalEEMod version 2020.4.0, which is a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions from land use projects. The model applies inherent default values for various land uses, including trip generation rates based on the Institute of Transportation Engineers (ITE) Manual, vehicle mix, trip length, average speed, etc. However, where project-specific data was available, such data was input into the model.

The results of emissions estimations were compared to the standards of significance discussed above in order to determine the associated level of impact. Results of the modeling are expressed in lbs/day for criteria air pollutant emissions and $MTCO_2e$/yr for GHG emissions, which allows for comparison between the model results and the thresholds of significance. All CalEEMod modeling results are included in Appendix C of the Air Quality Report.

It is noted that the estimated GHG emissions are presented for disclosure purposes only, as the BAAQMD does not have a threshold of significance for construction GHG emissions, and the BAAQMD's applicable thresholds of significance for operational GHG emissions are qualitative only.

Health Risk Assessment

To analyze potential health risks to nearby receptors that could result from DPM emissions and fugitive dust from off-road equipment at the project site, total emissions from construction of the proposed project, as well as project traffic travelling along SR 4, were estimated by Ramboll. The

construction health risk assessment (HRA) is included as Appendix B to the Air Quality Report (see Appendix D of this REIR). DPM is considered a subset of $PM_{2.5}$; thus, the CalEEMod estimated $PM_{2.5}$ emissions from exhaust during construction, and operational traffic generation, was conservatively assumed to represent all DPM emitted on-site. The CalEEMod estimated $PM_{2.5}$ exhaust emissions were then used to calculate the concentration of DPM within 1,000 feet of the project site, which represents the zone of influence recommended within the BAAQMD Guidelines. In addition, fugitive $PM_{2.5}$ emissions associated with road dust, grading, and bulldozing activities was calculated.

DPM and fugitive dust concentrations resulting from project implementation were estimated using the American Meteorological Society/Environmental Protection Agency (AMS/EPA) Regulatory Model (AERMOD). Ramboll then calculated the associated cancer risk using the OEHHA's updated Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. It should be noted that acute non-cancer health effects were not estimated, as the only TAC evaluated was DPM, which does not have acute health impacts. In order to evaluate health impacts to nearby off-site receptors, Ramboll modelled receptors at every structure within the vicinity of the project site, including potential new receptors that would be sited north of the site after construction of the Priority Area 1 Specific Plan.

In accordance with the BAAQMD CEQA guidelines, Ramboll also conducted an aggregate HRA for off-site sensitive receptors. The off-site aggregate assessment analyzed the impact of project-related construction and operational risks plus existing off-site sources (stationary and mobile). The analysis identified all stationary and mobile sources within 1,000 feet of the project site boundary, as well as other planned projects nearby. Sources evaluated in the aggregate HRA included BAAQMD permitted stationary sources, roadways with over 5,000 vehicles per day, and any other major sources of emissions within 1,000-foot zone of influence. Overall, the only sources identified to meet the aforementioned criteria included SR 4 and an emergency generator located east of the project site. In addition, two planned projects were identified and incorporated into the aggregate HRA, as applicable: The Ranch in Antioch, located approximately 2.5 miles northwest of the project site, and the Powerdrive Oil & Gas Company Wells Project, located adjacent to the project site's southwestern boundary. It should be noted that while other commercial and residential projects were identified as being located closer to the project site than The Ranch, the other identified development projects are not located within the 1,000 foot zone of influence. In addition, commercial and residential projects do not typically result the generation of substantial DPM emissions. Therefore, the two planned projects referenced in the aggregate HRA were representative of all other planned development projects in the project region.

Project-Specific Impacts and Mitigation Measures

Global climate change is, by nature, a cumulative impact. Emissions of GHG contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change (e.g., sea level rise, impacts to water supply and water quality, public health impacts, impacts to ecosystems, impacts to agriculture, and other environmental impacts). While GHG emissions from a project in combination with other past, present, and future projects contribute to the world-wide phenomenon of global climate change and the associated environmental impacts, a single project could not generate enough GHG emissions to contribute noticeably to a change in the global average temperature. Because the effects of GHG emissions are cumulative by nature, separate discussions for project-level and cumulative-level impacts for the proposed project are not necessary for this section of the REIR.

However, potential impacts related to air quality and energy may occur on both a project-level and a cumulative basis. Accordingly, both a project-level and a cumulative analysis of potential air quality- and energy-related impacts are presented below.

4.1-1 Conflict with or obstruct implementation of the applicable air quality plan during project construction. Based on the analysis below, the impact is *less than significant*.

During construction of the project, various types of equipment and vehicles would temporarily operate on the project site. Construction-related emissions would be generated from construction equipment, vegetation clearing and earth movement activities, construction workers' commute, and construction material hauling for the entire construction period. The aforementioned activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants. Project construction activities also represent sources of fugitive dust, which includes $PM_{2.5}$ emissions. Construction of the proposed project would generate emissions of criteria air pollutants, including ROG, NO_X, PM_{10}, and $PM_{2.5}$ intermittently within the site and in the vicinity of the site. Because the proposed project is located in a nonattainment area for ozone and PM, construction is a potential concern until all construction has been completed.

The proposed project is required to comply with all BAAQMD rules and regulations including Regulation 8, Rule 3 related to architectural coatings. In addition, all projects under the jurisdiction of the BAAQMD are required to implement all of the BCMMs provided in the BAAQMD CEQA Guidelines. Although BAAQMD requires that all construction activity within the SFBAAB implement the above listed BCMMs, the proposed project was modeled without the inclusion of such measures to provide a conservative, worst-case emissions scenario. Even under the conservative assumptions used for this analysis, emissions of $PM_{2.5}$ and PM_{10} would remain below the BAAQMD's thresholds of significance.

Using CalEEMod, Ramboll estimated the maximum construction-related emissions for development of the proposed project, which are presented in Table 4.1-7.

As presented in Table 4.1-7, implementation of the proposed project would result in construction-related criteria pollutant emissions below the applicable thresholds of significance.

Therefore, construction of the proposed project would not significantly contribute to the region's nonattainment status for ozone or PM and obstruct implementation of an applicable air quality plan, and a ***less-than-significant*** impact associated with construction-related emissions would occur.

Mitigation Measure(s)

None required.

Table 4.1-7
Unmitigated Construction Emissions (lbs/day)

Year	Proposed Project Average Daily Emissions			
	ROG	NO_x	PM_{10}*	$PM_{2.5}$*
2024	0.94	19	0.46	0.42
2025	0.92	9.5	0.30	0.29
2026	2.5	15	0.36	0.34
2027	3.3	17	0.36	0.34
2028	1.8	11	0.29	0.27
2029	9.8	1.4	0.031	0.028
2030	10	1.0	0.016	0.014
2031	10	1.0	0.014	0.013
BAAQMD Threshold	**54**	**54**	**82**	**54**
Exceeds Threshold?	**NO**	**NO**	**NO**	**NO**

Note:
* Denotes emissions from exhaust only. BAAQMD does not have adopted PM thresholds for fugitive emissions.

Source: Ramboll, 2022 (see Appendix D).

4.1-2 Conflict with or obstruct implementation of the applicable air quality plan during project operation. Based on the analysis below, the impact is *less than significant.*

Operational emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ would be generated by the proposed project from both mobile and stationary sources. The use of fireplaces/hearths would make up the majority of project-related emissions under unmitigated operations of the proposed project. Emissions would also occur from area sources such as landscape maintenance equipment exhaust and consumer products (e.g., deodorants, cleaning products, spray paint, etc.).

Operational emissions resulting from development of the project were modeled by Ramboll using CalEEMod, and the results are presented in Table 4.1-8.

Table 4.1-8
Unmitigated Operational Emissions

Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold?
	Average Daily (lbs/day)	Maximum Annual (tons/yr)	Average Daily (lbs/day)	Maximum Annual (tons/yr)	
ROG	16	2.9	54	10	**NO**
NO_X	9.7	1.77	54	10	**NO**
PM_{10}*	5.8	1.07	82	15	**NO**
$PM_{2.5}$*	1.7	0.32	54	10	**NO**

Note:
* Denotes emissions from exhaust only. BAAQMD has not yet adopted PM thresholds for fugitive emissions.

Source: Ramboll, 2022 (see Appendix D).

As demonstrated in Table 4.1-8, operational emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ would be below the BAAQMD's thresholds of significance. Thus, implementation of the proposed project would not generate long-term operational criteria air pollutant emissions in excess of thresholds, and the project would not contribute to the region's nonattainment status of ozone and/or violate an air quality standard. Accordingly, the project would not be considered to conflict with or obstruct implementation of regional air quality plans during project operation, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.1-3 Expose sensitive receptors to substantial pollutant concentrations. Based on the analysis below, the impact is *less than significant*.

The major pollutant concentrations of concern are localized CO emissions, TAC emissions, and criteria pollutant emissions, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. Implementation of the proposed project would increase traffic volumes on streets near the project site; therefore, the project would be expected to increase local CO concentrations. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. In accordance with the State CO Protocol, the BAAQMD established preliminary screening criteria for determining whether the effect that a project would have on any given intersection would cause a potential CO hotspot. If the following criteria are met by the proposed project at all affected intersections, the proposed project would not be expected to result in a CO hotspot:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

While BAAQMD has established the foregoing screening criteria for potential impacts, it should be noted that the SFBAAB has been in attainment of CAAQS and NAAQS for CO for more than 20 years.[29] Due to the continued attainment of CAAQS and NAAQS, and advances in vehicle emissions technologies, the likelihood that any

[29] Bay Area Air Quality Management District. *Air Quality Summary Reports*. Available at: http://www.baaqmd.gov/about-air-quality/air-quality-summaries. Accessed December 2022.

single project would create a CO hotspot is minimal. With regard to the proposed project, based on data provided by Abrams Associates, the project is anticipated to generate a total of 2,697 average daily trips (ADT).[30] Therefore, the maximum traffic volume anticipated at an affected intersection would not reach 44,000 vehicles per hour with development of the proposed project. In addition, the proposed project would result in the increase of traffic volumes beyond 24,000 vehicles per hour at any intersections where vertical and/or horizontal mixing is substantially limited. As such, operations of the proposed project would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards.

It should also be noted that while the proposed project would result in a less-than-significant impact related to CO emissions, Mitigation Measure 4.5-1 of this REIR requires that a Construction Traffic Management Plan be implemented during project construction activity, implementation of which would help to reduce the potential for construction activity to result in degradation of intersection operations, which would reduce the potential for CO emissions to increase at nearby intersections. In addition, construction-related traffic volumes would likely be much less than operational traffic volumes. Due to the lower anticipated volumes of traffic related to construction activity, construction of the proposed project would not increase vehicle traffic beyond the levels discussed above for project operations. Therefore, construction would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards.

TAC Emissions

Another category of environmental concern is TACs. Health risks from TACs are a function of both the concentration of emissions and the duration of exposure. The CARB has identified DPM from diesel-fueled engines as a TAC; thus, high-volume roadways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. The nearest sensitive receptors to the project site are the residences located immediately to the south of the site.

Operation of residential developments does not typically involve substantial TAC emissions. However, the proposed project would include construction activity within the project site that would involve the use of off-road equipment, much of which would likely be diesel powered, as well as an increase in operational traffic along SR 4. TAC emissions associated with construction activity and operational traffic increases associated with the proposed project are evaluated in further detail below.

It should be noted that the California Supreme Court decision in the case of *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal. 4th 369 clarified that CEQA does not require lead agencies to analyze the impact of existing environmental conditions on a project's future users or residents unless the project will exacerbate the existing environmental hazards or conditions. This limits the CEQA analysis of impacts from existing sources that emit TACs on new receptors

[30] Abrams Associates Traffic Engineering, Inc. *Review of Changes to the Trip Generation and Potential Traffic Impacts Resulting from Revision of 2020 Bridle Gate Project (VTM 9586) to include only Single-Family Homes.* February 15, 2022.

from a proposed development project, unless the situation is specifically required to be analyzed by statute (such as a school). Therefore, in the case of the proposed project, the impact of placing future residents near SR 4 is considered an existing environmental condition that would affect future users/residents, which is beyond the scope of required CEQA review.

Construction and Operational DPM Health Risks

Construction-related activities would result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. The potential for construction activity to generate DPM emissions is dependent on the number and types of equipment implemented for construction activity. Off-road heavy-duty diesel equipment used for site grading, paving, utility trenching and other construction activities result in the generation of DPM. In addition, operational traffic along SR 4 has the potential to result in the generation of DPM related to diesel powered passenger vehicles.

In order to determine if construction activities and/or operational traffic associated with the proposed project would result in the exposure of any sensitive receptors to substantial pollutant concentrations, the concentration of $PM_{2.5}$ at the maximally exposed sensitive receptor nearest to the site was estimated using AERMOD.

The cancer risk and non-cancer chronic hazard index are presented in Table 4.1-9. As shown in the table, DPM emissions associated with the proposed project would result in a cancer risk, as well as a chronic hazard index, that is below the applicable thresholds of significance. In addition, according to the HRA prepared by Ramboll, the $PM_{2.5}$ concentration would be 0.009 µg/m^3, which is well below the BAAQMD significance threshold of 0.3 µg/m^3.

Table 4.1-9
Maximum Unmitigated Cancer Risk and Hazard Index Associated with Project DPM

	Cancer Risk (per million persons)	Chronic Hazard Index
Result at Maximally Exposed Receptor	7.8	0.0036
Thresholds of Significance	**10.00**	**1.00**
Exceed Thresholds?	**NO**	**NO**

Sources: Ramboll, 2023 (see Appendix D).

It should also be noted that the actual risk would be much lower, as the analysis above conservatively assumes the same receptors are exposed to both construction and operations starting in the third trimester of pregnancy and throughout the earliest years of life when most sensitive to the effects of air pollution, when in reality, receptors would not be exposed to project traffic until after construction was complete. Therefore, impacts would be less than significant.

Aggregate Health Risks

As discussed above, in accordance with the BAAQMD CEQA guidelines, Ramboll also conducted an aggregate HRA for off-site sensitive receptors. The off-site aggregate assessment analyzed the impact of project-related construction and operational risks plus existing off-site sources within 1,000 feet of the project site boundary. Overall, the only sources identified to meet the aforementioned criteria included SR 4 and an emergency generator located east of the project site. In addition, two planned projects were identified and incorporated into the aggregate HRA: The Ranch in Antioch, and the Powerdrive Oil & Gas Company Wells Project.

The cancer risk and non-cancer chronic hazard index are presented in Table 4.1-10. As shown in the table, aggregate emissions would result in a cancer risk, as well as a chronic hazard index, that is below the applicable thresholds of significance. In addition, according to the HRA prepared by Ramboll, the aggregate $PM_{2.5}$ concentration would be 0.38 µg/m^3, which is below the BAAQMD significance threshold of 0.8 µg/m^3. Therefore, impacts would be less than significant.

Table 4.1-10
Maximum Unmitigated Aggregate Cancer Risk and Hazard Index

	Cancer Risk (per million persons)	Chronic Hazard Index
Result at Maximally Exposed Receptor	23.0	0.0040
Thresholds of Significance	**100.00**	**10.00**
Exceed Thresholds?	**NO**	**NO**

Sources: Ramboll, 2023 (see Appendix D).

Criteria Pollutants

As discussed in the Existing Environmental Setting section and summarized in Table 4.1-1, criteria pollutant emissions can cause negative health effects. With regard to the proposed project, the principal criteria pollutants of concern are localized CO, ozone and PM. As discussed above, the proposed project is not anticipated to result in impacts related to localized exposure of sensitive receptors to substantial concentrations of CO. Unlike CO and many TACs, due to atmospheric chemistry and dynamics, ozone and atmospheric PM typically act to impact public health on a cumulative and regional level, rather than a localized level. Due to the cumulative and regional nature of effects from criteria pollutants, the analysis of potential health effects of criteria pollutants is further discussed in Impact 4.1-4.

Conclusion

As discussed above, the proposed project would not cause any substantial levels of localized CO concentrations or other TACs. Construction-related emissions would be temporary, intermittent throughout the day, spread over the project site, and regulated. Thus, the proposed project would be expected to result in a ***less-than-significant*** impact associated with exposure of sensitive receptors to substantial levels of pollutant concentrations.

Mitigation Measure(s)
None required.

4.1-4 Result in other emissions (such as those leading to odors) affecting a substantial number of people. Based on the analysis below, the impact is *less than significant*.

Pollutants of principal concern include emissions leading to odors, emission of dust, or emissions considered to constitute air pollutants. Air pollutants have been discussed in Impacts 4.1-1 through 4.1-3 above. Therefore, the following discussion focuses on emissions of odors and dust.

Odors
According to the BAAQMD CEQA Guidelines, the ability to detect odors varies considerably among the population and can be subjective.[31] Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The presence of an odor impact is dependent on a number of variables including: the nature of the odor source; the frequency of odor generation; the intensity of odor; the distance of odor source to sensitive receptors; wind direction; and sensitivity of the receptor. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed project would not introduce any such land uses.

Construction activities often include diesel-fueled equipment and heavy-duty trucks, which could create odors associated with diesel fumes that may be considered objectionable. However, construction activities would be temporary, and construction activity would only occur during the days and hours specified General Plan Action N-1e, which limits construction activities to the hours of 7:00 AM and 6:00 PM on weekdays, and between 8:00 AM and 5:00 PM on Saturdays. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize emissions, including emissions leading to odors. Accordingly, substantial objectionable odors would not be expected to occur during construction activities.

Furthermore, the BAAQMD regulates objectionable odors through Regulation 7, Odorous Substances, which does not become applicable until the Air Pollution Control Officer (APCO) receives odor complaints from ten or more complainants within a 90-day period. Once effective, Regulation 7 places general limitations on odorous substances and specific emission limitations on certain odorous compounds, which remain effective until such time that citizen complaints have not been received by the APCO for one year. The limits of Regulation 7 become applicable again when the APCO receives odor complaints from five or more complainants within a 90-day period. Thus, although not anticipated, if odor complaints are made after the proposed

[31] Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines* [pg. 5-16]. April 2023.

project is developed, the BAAQMD would ensure that such odors are addressed, and any potential odor effects are minimized or eliminated.

Dust

As noted previously, all projects under the jurisdiction of BAAQMD are required to implement the BAAQMD's BCMMs, including, but not limited to, the following measures that specifically relate to dust suppression:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a six- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.

In addition to the BCMMs, projects are strongly encouraged to implement enhanced best management practices including, but not limited to, the following dust suppression measures:

- Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities.
- Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.
- Minimize the amount of excavated material or waste materials stored at the site.
- Hydroseed or apply non-toxic soil stabilizers to construction areas, including previously graded areas, that are inactive for at least 10 calendar days.

The aforementioned measures would ensure that construction of the proposed project does not result in substantial emissions of dust. Following project construction, the development area would be paved or landscaped and would not include any exposed topsoil. Thus, project operations would not generate significant amounts of dust that would adversely affect a substantial number of people.

Conclusion

For the aforementioned reasons, construction and operation of the proposed project would not result in emissions (such as those leading to odors) adversely affecting a substantial number of people, and a ***less-than-significant*** impact would result.

Mitigation Measure(s)

None required.

4.1-5 Result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency. Based on the analysis below, the impact is *less than significant*.

The following discussion addresses the proposed project's potential effects related to energy demand during construction and operations.

Construction Energy Use

Construction of the proposed project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met via a hookup to the existing electricity grid.

Typically, at construction sites, electricity from the existing grid is used to power portable and temporary lights or office trailers. Because grid electricity would be used primarily for steady sources such as lighting, not sudden, intermittent sources such as welding or other hand-held tools, the increase in electricity usage at the site during construction would not be expected to cause any substantial peaks in demand. Construction of the proposed project, which would result in temporary increases in electricity demand, would not cause a permanent or substantial increase in demand that would exceed PG&E's demand projections or exceed the ability of PG&E's existing infrastructure to handle such an increase. Therefore, project construction would not result in any significant impacts on local or regional electricity supplies, the need for additional capacity, or on peak or base period electricity demands. In addition, standards or regulations specific to construction-related electricity usage do not currently exist.

Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of the project site would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location. In addition, the entire construction phase is anticipated to occur over approximately two years. As a result, the increased energy demand associated with construction would take place for a minimal amount of time compared to the operational lifetime of the project.

All construction equipment and operation thereof would be regulated pursuant to the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing a five-minute limit on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. Furthermore, as a means of reducing emissions, construction vehicles are required to become cleaner through the use of renewable energy resources. Engine tiers are used to describe the emissions intensity and efficiency of an engine. Construction equipment with Tier 0 or Tier 1 engines are the least efficient, and Tier 4 is the most efficient. In November 2021, the CARB began developing standards for Tier 5 engines. As of 2015, vehicles with Tier 0 and Tier 1 engines are prohibited from being added to equipment fleets. Fleets with a total horsepower over 2,501, excluding non-profit training centers, may not add any Tier 2 engines and, starting January 1, 2023, all engines must be Tier 3 or higher.[32] The In-Use Off-Road Diesel Vehicle Regulation would, therefore, help to improve fuel efficiency for equipment used in construction of the proposed project.

The CARB enforces off-road equipment regulations through their reporting system, Diesel Off-road Online Reporting System (DOORS). Each construction fleet is required to update their DOORS account within 30 days of buying or selling a vehicle, and DOORS automatically calculates the fleet average index for each fleet. The fleet average index is an indicator of a fleet's overall emission rate, and is based on each vehicle's engine horsepower and model year, and whether it is equipped with a Verified Diesel Emission Control Strategy (VDECS). If a fleet cannot, or does not want to, meet the fleet average target in a given year, the fleet may instead choose to comply with the Best Available Control Technology (BACT) requirements. A fleet may meet the BACT requirements each year by turning over or installing VDECS on a certain percentage of its total fleet horsepower. 'Turnover' means retiring a vehicle, designating a vehicle as permanent low-use (a vehicle used less than 200 hours per year), repowering a vehicle with a higher tier engine, or rebuilding the engine to a more stringent emission standard. By each compliance date (annually on January 1st), the fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the BACT requirements.[33] The project would be required to comply with such regulations, which would ensure that construction equipment meets all State efficiency requirements.

Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to further reduce demand on oil and limit emissions associated with construction. Over time, as technology progresses and more stringent emissions standards are put in place, construction equipment engines become increasingly efficient. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, which are indirectly related to energy efficiency, which would help to further reduce energy use associated with the proposed project.

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32 California Air Resources Board. *In-Use Off Road Diesel-Fueled Fleets Regulation Overview*, *Revised October 2016*. 2016.

33 California Air Resources Board. *Frequently Asked Questions, Regulation for In-Use Off-Road Diesel-Fueled Fleets (Off-Road Regulation)*. August 2014.

Based on the above, the temporary increase in energy use occurring during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand.

Building Energy Demand

Energy use associated with operation of the proposed project would be typical of residential uses, requiring electricity for interior and exterior building lighting, HVAC, electronic equipment, machinery, refrigeration, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment.

The proposed project is required to comply with all applicable standards and regulations regarding energy conservation and fuel efficiency, including the CBSC and CARB standards, which would ensure that the future uses would be designed to be energy efficient to the maximum extent practicable. Adherence to the most recent CALGreen Code and the Building Energy Efficiency Standards would ensure that the proposed development on-site would consume energy efficiently through the incorporation of such features as efficient water heating systems, high performance attics and walls, and high efficacy lighting. In addition, State regulations promote the generation of renewable energy and encourage energy efficiency through requirements placed on utility providers and strict development standards. For instance, the RPS requires utilities, including PG&E, to procure an increasing proportion of electricity from renewable sources. Ultimately the RPS requirements mandate that all electricity produced within the State be renewably sourced by the year 2045.

In addition, the 2022 CBSC has begun phasing in the provision of zero net energy by requiring residential projects to meet 100 percent of their electricity needs through rooftop solar. Therefore, the proposed project would include rooftop solar to meet 100 percent of the project's electricity demand.

With regard to landscaping and maintenance equipment, AB 1346 would require that all small off-road engines are all-electric by the time that the proposed project is operational. Given that approximately 85 percent of the electricity from PG&E is generated from clean energy sources,[34] the use of electric maintenance equipment would be considered more energy efficient than diesel- or gas-powered maintenance equipment.

Transportation Energy Demand

In addition to building energy demand, the proposed project would result in transportation energy use associated with vehicle trips generated by the proposed single-family residences. As discussed in Chapter 4.5, Transportation, of this REIR, while the proposed project would result in an increase in VMT, with the implementation

[34] Pacific Gas and Electric Company. *2020 Power Mix.* Available at: https://www.pge.com/pge_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2021/1021-PowerContent.pdf. Accessed February 2023.

of Mitigation Measure 4.5-3, the proposed project would generate VMT per resident that meets the Contra Costa Transportation Authority's (CCTA's) threshold of 15 percent below the existing VMT per capita.

In addition, California leads the nation in registered alternatively-fueled and hybrid vehicles. In fact, under SB 500, the State has required that, starting in the year 2030, all cars sold shall be zero-emission/electric vehicles. In addition, State-specific regulations encourage fuel efficiency and reduction of dependence on oil. Improvements in vehicle efficiency and fuel economy standards help to reduce consumption of gasoline and reduce the State's dependence on petroleum products. The 2022 CBSC also requires new single-family residences to include the necessary electrical infrastructure for EV charging stations.

The proposed project would be required to comply with all applicable regulations associated with vehicle efficiency and fuel economy. In addition, buildout of the proposed project would involve the provision of sidewalks and trails throughout the project site, in conformance with City standards. The aforementioned improvements would provide pedestrian connectivity within the project site and to existing off-site facilities, thereby helping to discourage driving and reduce vehicle trips and associated transportation energy demand.

Conclusion

Based on the above, the proposed project would not be considered to result in a wasteful, inefficient, or unnecessary use of energy, and the proposed project is not anticipated to conflict with a State or local plan for renewable energy or energy efficiency. Thus, impacts would be considered ***less than significant***.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

A project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development projects. The geographic context for the cumulative air quality analysis includes Contra Costa County and surrounding areas within the portion of the SFBAAB that is designated nonattainment for ozone and PM_{10}.

As discussed previously, climate change occurs on a global scale, and emissions of GHGs, even from a single project, contribute to the global impact. However, due to the existing regulations within the State, for the purposes of this analysis, the geographic context for the analysis of GHG emissions presented in this REIR is California.

Finally, a project's impacts related to energy use may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development projects. The following discussion of energy impacts is based on the implementation of the proposed project in combination with buildout of the adopted City of Brentwood General Plan. Additional detail regarding the cumulative project setting can be found in Chapter 6, Statutorily Required Sections, of this REIR.

4.1-6 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). Based on the analysis below, the project's incremental contribution to this significant cumulative impact is *less than cumulatively considerable.*

Buildout of the proposed project would lead to the release of emissions that would contribute to the cumulative regional air quality setting. The following section includes a discussion of the proposed project's cumulative contribution to cumulative operational emissions associated with implementation of the project, and the cumulative health effects of exposure to criteria pollutants. Construction activities result in one-time, relatively short-term emissions, and generally are not considered to contribute to cumulative emissions.

Cumulative Operational Emissions from the Proposed Project

The long-term emissions associated with operation of the proposed project in conjunction with other existing or planned development in the area would incrementally contribute to impacts to the region's air quality. According to the BAAQMD's CEQA Guidelines, if a project were to exceed the identified significance thresholds, the project's emissions would be cumulatively considerable.[35] Operational emissions resulting from development of the project were discussed under Impact 4.1-2, the results are presented in Table 4.1-8. As shown in the table, the proposed project's operational emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ would be below the applicable BAAQMD thresholds of significance. Therefore, the project's contribution to cumulative emissions of criteria pollutants would be less than cumulatively considerable.

Cumulative Health Effects of Criteria Pollutants

As noted in Table 4.1-1, exposure to criteria air pollutants can result in adverse health effects. The AAQS presented in Table 4.1-2 are health-based standards designed to ensure safe levels of criteria pollutants that avoid specific adverse health effects. Because the SFBAAB is designated as nonattainment for State and federal eight-hour ozone and State PM_{10} standards, the BAAQMD, along with other air districts in the SFBAAB region, has adopted federal and state attainment plans to demonstrate progress towards attainment of the AAQS. Full implementation of the attainment plans would ensure that the AAQS are attained and sensitive receptors within the SFBAAB

[35] Bay Area Air Quality Management District. *Air Quality Guidelines* [pg. 5-4]. April 2023.

are not exposed to excess concentrations of criteria pollutants. The BAAQMD's thresholds of significance were established with consideration given to the health-based air quality standards established by the AAQS, and are designed to aid the district in implementing the applicable attainment plans to achieve attainment of the AAQS.[36] Thus, if a project's criteria pollutant emissions exceed the BAAQMD's emission thresholds of significance, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts, thereby delaying attainment of the AAQS. Because the AAQSs are representative of safe levels that avoid specific adverse health effects, a project's hinderance of attainment of the AAQS could be considered to contribute towards regional health effects associated with the existing nonattainment status of ozone and PM_{10} standards.

However, as discussed in Impact 4.1-1 and 4.1-2, the proposed project would not result in exceedance of the applicable BAAQMD thresholds of significance. Consequently, implementation of the proposed project would not conflict with the BAAQMD's adopted attainment plans nor would the proposed project inhibit attainment of regional AAQS. Therefore, implementation of the proposed project would not contribute towards regional health effects associated with the existing nonattainment status of ozone and PM_{10} standards.

Conclusion

Based on the above, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant emissions for which the region is in nonattainment under an applicable federal and State AAQS. As such, the proposed project's incremental contribution to regional air quality impacts would be ***less than cumulatively considerable***.

Mitigation Measure(s)

None required.

4.1-7 Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Based on the analysis below and with implementation of mitigation, the project's incremental contribution to this significant cumulative impact is *less than cumulatively considerable*.

An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions that are associated with global climate change. Estimated GHG

[36] Bay Area Air Quality Management District. *Air Quality Guidelines* [pg. 5-10]. April 2023.

emissions attributable to future development would be primarily associated with increases of CO_2 and, to a lesser extent, other GHG pollutants, such as CH_4 and N_2O. Sources of GHG emissions include area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste.

Based on the modeling conducted by Ramboll for the proposed project, total unmitigated annual operational GHG emissions were estimated as presented in Table 4.1-11. In addition, the construction GHG emissions were amortized over the anticipated 30-year lifetime of the proposed project and added to operational emissions of the project, which represents a conservative approach for the disclosure of project-generated GHG emissions.

Table 4.1-11
Unmitigated Project Operational GHG Emissions

Source	Annual GHG Emissions ($MTCO_2e$/yr)
Area	28
Energy	588
Mobile	2,159
Waste	173
Water	36
Amortized Construction GHG Emissions	156
Total Annual Operational GHG Emissions	**3,110**

Source: Ramboll, 2022 (see Appendix D).

As noted previously, the applicable BAAQMD thresholds of significance for GHG emissions are qualitative, and the foregoing information is provided for disclosure purposes only. Potential impacts related to GHG emissions resulting from implementation of the proposed project are considered in comparison with BAAQMD's adopted thresholds of significance below.

BAAQMD Thresholds of Significance

According to the BAAQMD thresholds of significance, a project must either include specific project design elements related to buildings and transportation or be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

The City of Brentwood has not yet prepared guiding documents that meet the criteria for a qualified Climate Action Plan under State CEQA Guidelines Section 15183.5(b). Thus, this discussion evaluates project consistency with the BAAQMD's Buildings and Transportation criteria, as discussed in the Standards of Significance section of this chapter.

With regard to Buildings criterion a., the project applicant has not yet committed to the prohibition of natural gas infrastructure in the proposed project design. Thus, without mitigation, the proposed project could conflict with Buildings criterion a.

Consistency with Buildings criterion b. is evaluated under Impact 4.1-5. As noted therein, the temporary increase in energy use occurring during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. During project operations, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, including the Building Energy Efficiency Standards and the CALGreen Code, which would ensure that building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary. As a result, the proposed project would comply with Buildings criterion b.

Consistency with Transportation criterion c. is evaluated in Chapter 4.5, Transportation, of this REIR. As presented therein, with implementation of Mitigation Measure 4.5-3, the proposed project would generate VMT per resident that meets the CCTA's 15 percent below the existing VMT per capita threshold. Therefore, the proposed project would not conflict with Transportation criterion c.

With regard to Transportation criterion d., the CALGreen Code requires all single-family, townhomes, and duplexes be EV capable (i.e., each dwelling unit must have a listed raceway to accommodate a dedicated 208/40-volt branch circuit), which would be suitable for EV charging. For single-family residences and townhouses, compliance with the CALGreen Code would satisfy the requirements established by BAAQMD criterion d. Thus, the proposed project would comply with Transportation criterion d.

Conclusion

Based on the above, the proposed project would comply with Buildings criterion b., related to the wasteful, inefficient, or unnecessary use of energy, and Transportation criterion d., related to the provision of EV charging stations. In addition, Mitigation Measure 4.5-3 would ensure that the proposed project would comply with Transportation criterion c., related to VMT. However, the proposed project has the potential to conflict with Buildings criterion a., related to the prohibition of natural gas. Because the proposed project could conflict with the BAAQMD's applicable thresholds of significance for GHG emissions, the proposed project could generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Thus, a ***cumulatively considerable*** and ***significant*** impact related to GHG emissions could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less than significant* level.

4.1-6(a) Implement Mitigation Measure 4.5-3.

4.1-6(b) Prior to the approval of project improvement plans, the applicant shall implement the following measure:

- *Consistent with the BAAQMD's Buildings standard a., natural gas shall be prohibited in proposed structures.*

Compliance with the foregoing measure shall be ensured by the City of Brentwood Community Development Department.

4.1-8 Result in a cumulatively considerable inefficient or wasteful use of energy or conflict with a State or local plan for renewable energy or energy efficiency. Based on the analysis below, the impact is *less than significant*.

Impact 4.1-5 discusses the consumption of energy on a project level, within the context of existing State plans and regulations. As discussed previously, the project would involve consumption of diesel, gasoline, natural gas, and electricity throughout construction and operations. However, all proposed structures would be built in compliance with existing statewide mandatory energy efficiency standards, such as those contained in the California Building Energy Efficiency Standards and the CALGreen Code. Compliance with the energy efficiency standards would reduce the amount of electricity consumed by the proposed development. State regulations would also help to reduce the amount of energy consumed by on-road vehicles over time. For instance, State and federal emissions standards and fuel economy standards result in increased fuel efficiency for on-road vehicles. Overall, as concluded above, the proposed project would result in a less than significant impact related to the inefficient or wasteful use of energy or conflicting with a State or local plan for renewable energy or energy efficiency.

Similar to the proposed project, all future development within the City of Brentwood would be required to comply with applicable State and local regulations related to energy efficiency. Increased efficiency would be ensured in the future as cumulative development occurs due to compliance with the State's robust energy efficiency requirements. For example, the 2022 CBSC has begun phasing in the provision of zero net energy by requiring residential projects to meet 100 percent of their electricity needs through rooftop solar. Cumulative residential development would include rooftop solar to meet 100 percent of each project's electricity demand and, pursuant to 2022 CBSC, new non-residential buildings associated with cumulative development would be required to be solar ready. Furthermore, energy efficiency regulations have been getting progressively more stringent over time. Thus, as cumulative development occurs under the increasingly stringent regulations, the energy use associated with such cumulative development is anticipated to be increasingly energy efficient over time as well.

Based on the above, implementation of the project in combination with other cumulative development in the project region would not result in the wasteful or inefficient use of energy. Because the project would not conflict with a local plan to increase energy efficiency and reduce energy consumption, a ***less than significant*** impact would occur.

Mitigation Measure(s)

None required.

4.2 Biological Resources

4.2 BIOLOGICAL RESOURCES

4.2.1 INTRODUCTION

The Biological Resources chapter of the REIR evaluates the biological resources known to occur or potentially occur within the project site and surrounding environs. The chapter describes the proposed project's potential impacts to biological resources and identifies measures to eliminate or substantially reduce impacts to a less-than-significant level. Existing plant communities, wetlands, wildlife habitats, and potential for special-status species and communities are discussed for the project region. The information contained in the analysis is primarily based on a Planning Survey Report (PSR) prepared by Moore Biological Consultants (see Appendix E of this REIR).[1] Further information was sourced from the City of Brentwood General Plan,[2] the City of Brentwood General Plan EIR,[3] and the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (ECCC HCP/NCCP).[4] It should be noted that the PSR was updated, as necessary, to address the comments included in the third-party independent peer review performed by Monk & Associates.[5] Additionally, this chapter incorporates the analysis from the Sand Creek Road Extension Project Initial Study/Mitigated Negative Declaration (IS/MND) prepared by the City.[6]

4.2.2 EXISTING ENVIRONMENTAL SETTING

The following sections describe the regional biological setting in which the project site is located, the biological setting of the project site, and the special-status species and sensitive natural communities known to occur within the project site and surrounding environs.

Regional Setting

The project site is located within the City of Brentwood, which is situated in eastern Contra Costa County on the eastern perimeter of the San Francisco Bay Area, approximately 50 miles east of San Francisco and 50 miles southwest of the Sacramento. To the north of the City, the Sacramento-San Joaquin River Delta (Delta) flows in an east-to-west direction into the Suisun Bay, whose waters then enter the San Francisco Bay. The Delta supplies two-thirds of the State's drinking water, as well as farmland irrigation water and habitat for fish and wildlife.

The topography of the Brentwood planning area, which encompasses the boundaries of the City limits, is characterized by the relatively flat terrain of the Central Valley, with gently sloping hills in the western and southwestern portions that approach the foothills of the Diablo Range. The distant eastern slopes of the Diablo Range and the gently rolling hills of the City's planning area are characterized by grassy, tree-studded terrain. In addition, the City is surrounded by

1 Moore Biological Consultants. *Application Form and Planning Survey Report, To Comply With and Receive Permit Coverage Under The East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan*. February 2022.
2 City of Brentwood. *City of Brentwood General Plan*. Adopted July 22, 2014.
3 City of Brentwood. *Final Environmental Impact Report for the 2014 Brentwood General Plan Update*. June 2014.
4 East Contra Costa County Habitat Conservation Plan Association. *Final East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan*. October 2006.
5 Monk & Associates. *Peer Review of Planning Survey Report for the Proposed Bridle Gate Project Development Site, Brentwood, California*. November 22, 2022.
6 City of Brentwood. *Sand Creek Roadway Extension Project Initial Study/Mitigated Negative Declaration*. August 2022.

agricultural operations, which consist primarily of row crops, orchards, and grazing land. Within the City limits, Brentwood has a strong agricultural heritage; however, the City is currently defined by its various residential communities, with approximately 62 percent of the City limits designated for residential uses. Commercial, office, and industrial uses account for an additional 7.5 percent of the designated land within the City.

Although largely developed with existing urban uses, the City still includes a variety of land covers, which potentially provide habitat for various plant and wildlife species. Among the largest of land covers prevalent within the City, annual grassland occurs mostly on the City's flat plain areas and gently rolling foothills. Similarly, pastures are planted on flat and gently rolling terrain within and in proximity to the City limits. Deciduous and evergreen orchards also occur in the City, as well as vineyards.

With respect to aquatic resources within the region, Brentwood is located almost entirely within the Marsh Creek Watershed and contains numerous aquatic habitats that qualify as federally protected wetlands and jurisdictional waters. The largest creek draining the watershed is Marsh Creek, which flows from the south to the north through the center of Brentwood. Within the City, the upstream segment of Marsh Creek is a natural creek. The downstream segment has been converted to a flood control channel. Dry Creek, Deer Creek, and Sand Creek each flow west to east and join Marsh Creek within the City limits. Much of the naturally occurring riparian vegetation along the creeks in the City's planning area has been reduced or eliminated, due to flood control measures or agricultural encroachment. The most well-developed riparian communities are found along Marsh Creek, south of its confluence with Dry Creek, and along Sand Creek, east of Fairview Avenue. Habitats associated with the City's aquatic resources include valley-foothill riparian, riverine, and lacustrine habitats.

Project Setting

The project site, which is bounded by Old Sand Creek Road to the north and State Route (SR) 4 to the east, encompasses approximately 126.86 acres and is composed of partially graded, undeveloped ruderal grassland that is currently used for dry farming. The central and western portions of the project site contain moderately sloping hillsides along a northwesterly trending ridge. The northeastern and eastern portions of the site consist of gently easterly sloping topography that ranges in elevation from approximately 120 feet above mean sea level (msl) to approximately 160 feet above msl. The highest elevation at the site is along the ridge in the southwestern portion of the site at 230 feet above msl.

During the past decade, the project site was subject to substantial ground disturbance related to the construction of SR 4. Alfalfa crops have also been farmed on-site for many years. Sand Creek flows west to east through the northern portion of the project site and supports both native riparian vegetation and a variety of landscaped or planted ornamentals. Lands south of Sand Creek, which, as discussed in the Project Description chapter of this REIR, would be subject to disturbance as part of the proposed project, support ruderal grassland vegetation that is periodically disked and currently is used for winter wheat farming. The area north of Sand Creek, which would remain undeveloped, also supports ruderal grassland vegetation that is periodically disked and has been used for winter wheat farming operations in past years. A seasonal wetland swale in the western portion of the site drains into Sand Creek. Numerous trees are located on-site within the Sand Creek riparian corridor. A few additional trees occur north of Sand Creek and along Old Sand Creek Road.

The project site is located within the ECCC HCP/NCCP permit area. The ECCC HCP/NCCP is discussed in further detail in the Regulatory Context section of this chapter.

Terrestrial Vegetation Communities

Moore Biological Consultants identified the following two habitat types within the project site: ruderal grassland and riparian woodland/scrub. The project site's vegetation communities are shown in Figure 4.2-1 and discussed further below.[7]

Ruderal Grassland

The project site is vegetated with 127.37 acres of ruderal grassland vegetation that has been highly disturbed by agricultural use and ground disturbance related to construction SR 4. The on-site grasslands have been graded and re-graded numerous times over the years and are routinely disked. Dominant grass species within the site include oats (*Avena fatua*), soft chess brome (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), and perennial ryegrass (*Lolium perenne*). Other grassland species, such as yellow starthistle (*Centaurea solstitialis*), black mustard (*Brassica nigra*), yellow sweetclover (*Melilotus officinalis*), American vetch (*Vicia americana*), purple owl's clover (*Castilleja exserta*), and filaree (*Erodium* spp.), are intermixed with the dominant grasses.

Riparian Woodland/Scrub

A total of 3.35 acres of riparian woodland/scrub is located within the project site and associated with Sand Creek, which is located in an incised corridor approximately 15 feet below adjacent grasslands. The creek flows from the west to the east through the project site, including through the site's northwest tip. Valley oak (*Quercus lobata*), California black walnut (*Juglans californica*), California buckeye (*Aesculus californica*), cottonwoods (*Populus fremontii*), almond (*Prunus dulcis*), and fan palm (*Washingtonia filifera*) are the dominant trees along Sand Creek. A few scattered elderberry (*Sambucus* nigra ssp. *caerulea*) shrubs and patches of wild rose (*Rosa californica*) are located along the banks of the stream. Cattails (*Typha* sp.), bulrush (*Schoenoplectus americanus*), water plantain (*Alisma trivale*), and curly dock (*Rumex crispus*) are dominant species in the creek bed.

Aquatic Resources

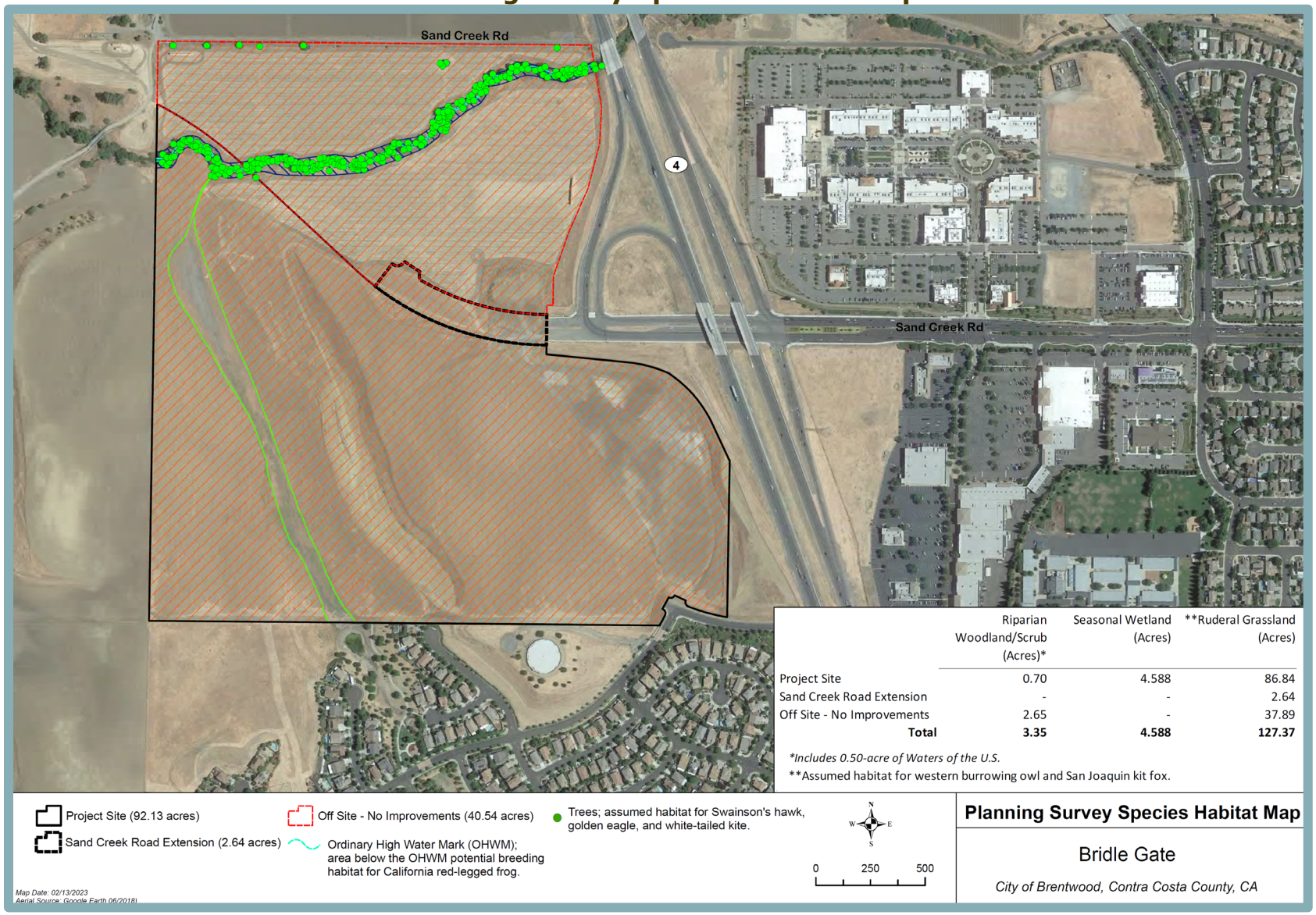
Pursuant to the PSR, a total of approximately 4.7 acres of aquatic resources were mapped in the project site in accordance with the U.S. Army Corps of Engineers (USACE) 1987 Wetlands Delineation Manual and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. The project site's aquatic resources are shown in Figure 4.2-2 and discussed further below.

Seasonal Wetland and Stream

A total of 4.59 acres of seasonal wetland are located in the western portion of the project site and have been highly disturbed through routine disking. Water drains into the site from an off-site basin in the existing residential subdivision immediately to the south and drains through the seasonal wetland feature, before finally draining into Sand Creek in the northwest portion of the project site. The swale is saturated seasonally, but surface water is present only during or shortly after rain events. Perennial ryegrass is the dominant species in the swale, with lesser amounts of Mediterranean barley (*Hordeum marinum*), as well as upland species, such as Harding grass (*Phalaris aquatica*) and black mustard. In addition, 0.112-acre of stream was mapped within the project site (Sand Creek).

[7] It is noted that the study area for the PSR included the City-owned Sand Creek Road right-of-way, which is not included as part of the project site.

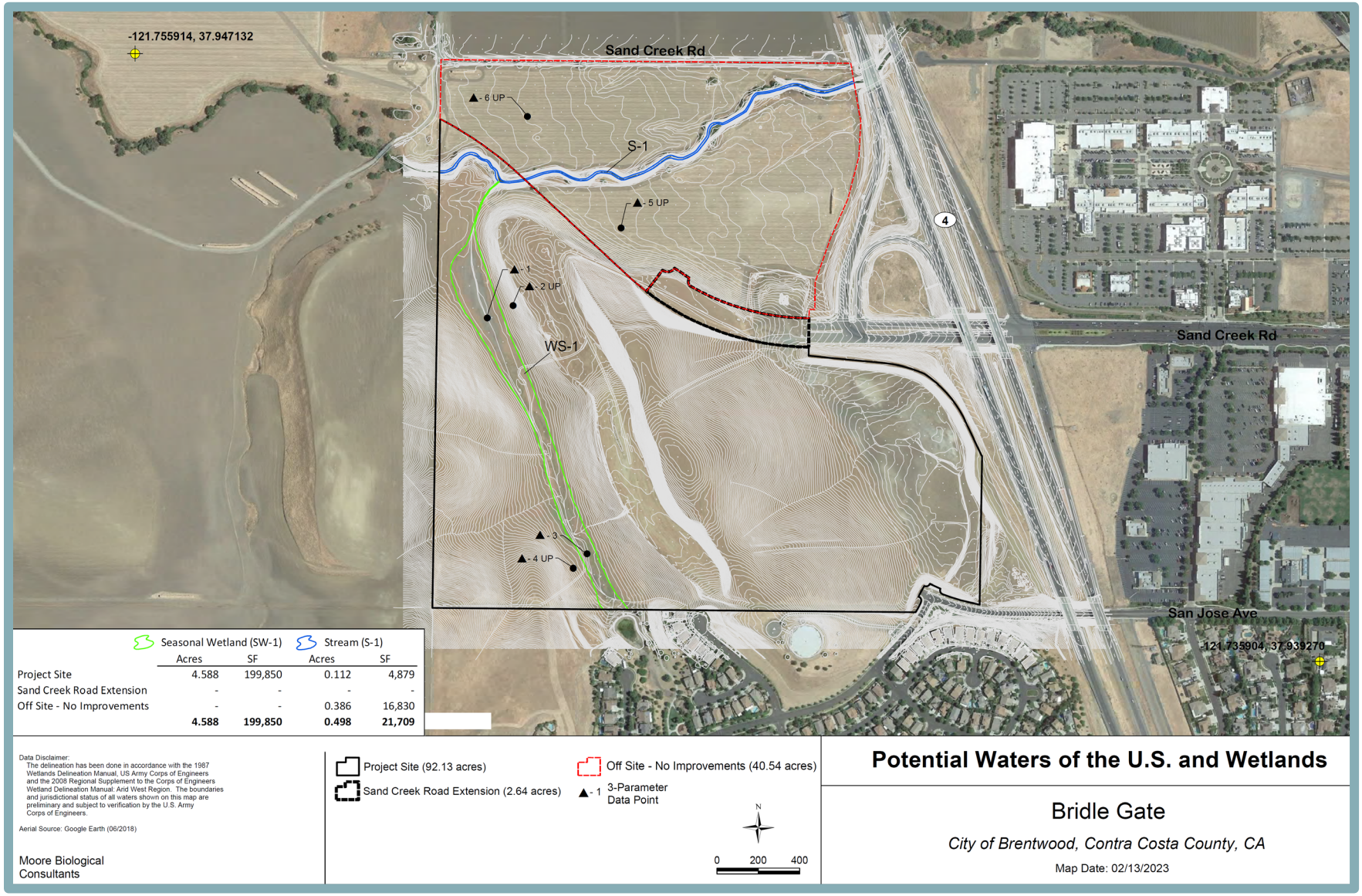
Figure 4.2-1
Planning Survey Species Habitat Map



	Riparian Woodland/Scrub (Acres)*	Seasonal Wetland (Acres)	**Ruderal Grassland (Acres)
Project Site	0.70	4.588	86.84
Sand Creek Road Extension	-	-	2.64
Off Site - No Improvements	2.65	-	37.89
Total	**3.35**	**4.588**	**127.37**

**Includes 0.50-acre of Waters of the U.S.*
**Assumed habitat for western burrowing owl and San Joaquin kit fox.

Figure 4.2-2
Potential Waters of the U.S. and Wetlands



Special-Status Species

Special-status species are species that have been listed as threatened or endangered under the federal Endangered Species Act (FESA), California Endangered Species Act (CESA), or are of special concern to federal resource agencies, the State, or private conservation organizations. A species may be considered to have special status due to declining populations, vulnerability to habitat change, or restricted distributions. A general description of the criteria and laws pertaining to special-status classifications is described below. Special-status plant and wildlife species may meet one or more of the following criteria:

1. Listed as threatened or endangered, or proposed or candidates for listing by the U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS);
2. Listed as threatened or endangered and candidates for listing by the California Department of Fish and Wildlife (CDFW);
3. Identified as Fully Protected species or Species of Special Concern by CDFW;
4. Plant species considered to be rare, threatened, or endangered in California by the California Native Plant Society (CNPS) and CDFW (California Rare Plant Rank [CRPR] 1 and 2):
    a. CRPR 1A: Plants presumed extinct.
    b. CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere.
    c. CRPR 2A: Plants extirpated in California, but common elsewhere.
    d. CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere.

Listed and Special-Status Plant Species

The City of Brentwood approved the Sand Creek Road Extension Project (State Clearinghouse No. 2022080657) on November 15, 2022. The Sand Creek Road Extension Project will include the two-lane extension of Sand Creek Road through the Bridle Gate project site, from the road's terminus west of SR 4 to Heidorn Ranch Road for approximately 2,300 linear feet and crossing Sand Creek. As part of the Sand Creek Road Extension Project IS/MND prepared by the City, a Letter Summarizing Wildlife and Plant Resources was prepared by Monk & Associates, Inc. to ascertain the potential for special-status plant and wildlife species to occur in the vicinity of the Sand Creek Road Extension Project site.[8,9] Thus, given that the sites of the Sand Creek Road Extension Project and the proposed project are contiguous, the discussions of special-status species with potential to occur detailed in Monk & Associates' Letter Summarizing Wildlife and Plant Resources are applicable to the proposed project.

The Letter Summarizing Wildlife and Plant Resources included a query of the California Natural Diversity Database (CNDDB) for historic and recent records of special-status plant and wildlife species known to occur within three miles of the project site. According to the CNDDB records search, seven special-status plant species have the potential to occur in the surrounding project vicinity.

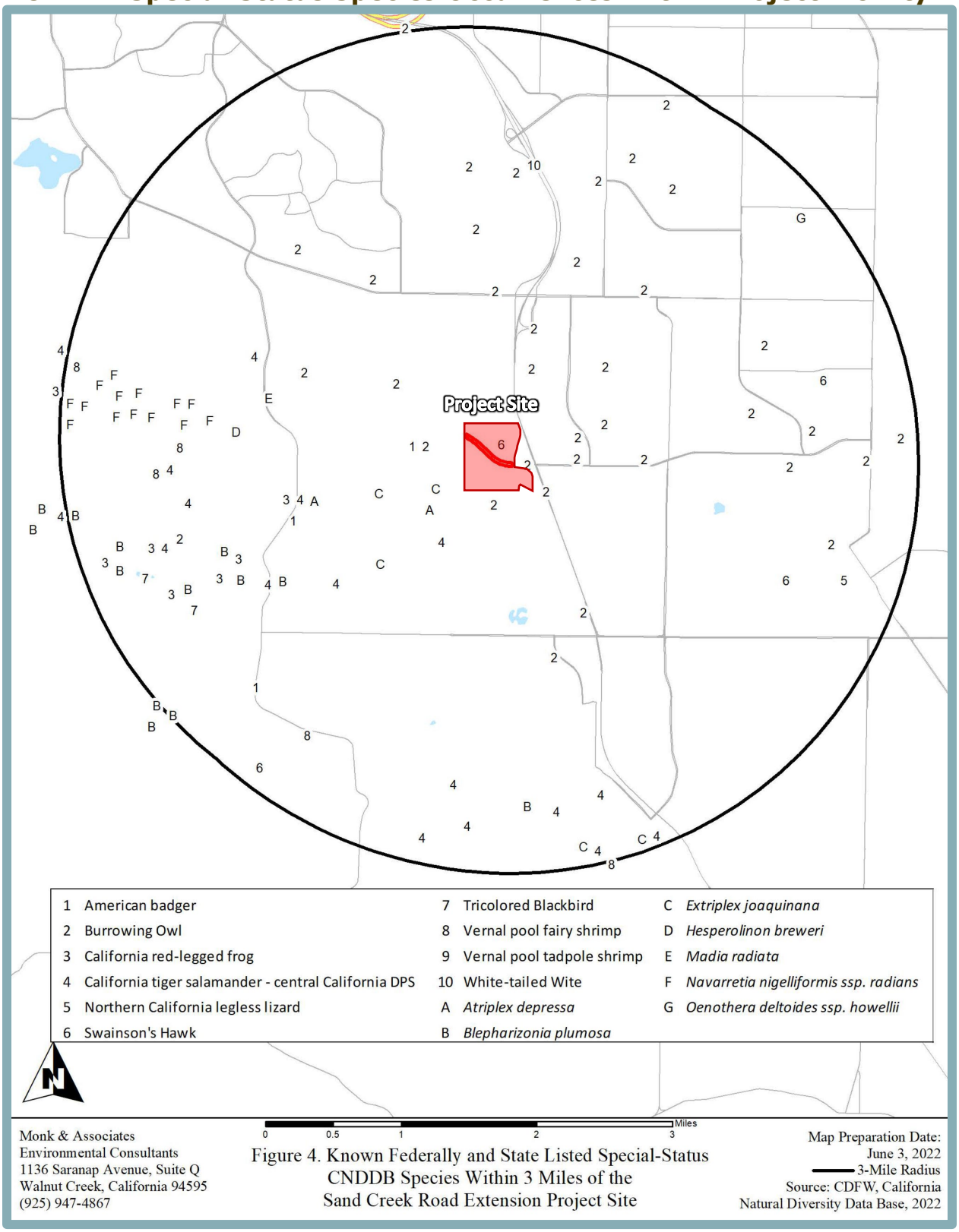
The nearest occurrences of the aforementioned species to the project site are shown in Figure 4.2-3. The following set of criteria describes the potential for occurrence within the project site:

- Present: Species occurs within the project site based on CNDDB records and/or was observed within the site during the field surveys;

[8] City of Brentwood. *Sand Creek Roadway Extension Project Initial Study/Mitigated Negative Declaration*. August 2022.

[9] Monk & Associates, Inc. *Letter Summarizing Wildlife and Plant Resources, Sand Creek Road Extension Project, City of Brentwood, California*. June 15, 2022.

Figure 4.2-3
CNDDB Special-Status Species Occurrences Within Project Vicinity



Monk & Associates
Environmental Consultants
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Figure 4. Known Federally and State Listed Special-Status CNDDB Species Within 3 Miles of the Sand Creek Road Extension Project Site

Map Preparation Date:
June 3, 2022
3-Mile Radius
Source: CDFW, California Natural Diversity Data Base, 2022

- High: The project site is within the known range of the species and suitable habitat exists on-site;
- Moderate: The project site is within the known range of the species and very limited suitable habitat occurs on-site;
- Low: The project site is within the known range of the species and marginally suitable habitat exists on-site or the species was not observed during focused surveys conducted within the site; or
- None: The project site does not contain suitable habitat for the species, the species was not observed during focused surveys conducted within the site, or the site is outside the known range of the species.

In addition, the species are detailed in Table 4.2-1. As discussed further in this chapter under the Method of Analysis subsection, focused surveys conducted by Moore Biological Consultants as part of the PSR determined that requisite habitat is not currently available on-site to accommodate the foregoing special-status plant species.

Listed and Special-Status Wildlife Species

According to the CNDDB records search conducted as part of the Letter Summarizing Wildlife and Plant Resources, 11 special-status wildlife species have the potential to occur within the surrounding vicinity of the project site. In addition, as part of the PSR, Moore Biological Consultants found that San Joaquin kit fox (*Vulpes macrotis mutica*) has potential to occur in the project vicinity. The nearest occurrences of the 12 total special-status species are shown in Figure 4.2-3. The species are detailed in Table 4.2-1.

Based on field observations by Monk & Associates and Moore Biological Consultants (detailed further in this chapter under the Method of Analysis subsection), eight of the 12 wildlife species were determined to have potential to occur within the project site and are discussed further below.

California Tiger Salamander

The California tiger salamander (*Ambystoma californiense*) is a federally listed threatened species and a Covered Species under the ECCC HCP/NCCP. California tiger salamanders occur in grasslands and open oak woodlands that provide suitable over-summering and/or breeding habitats. California tiger salamanders spend the majority of their lives underground. They typically only emerge from their subterranean refugia for a few nights each year during the rainy season to migrate to breeding ponds. Adults have been observed up to 2,092 meters (1.3 miles) from breeding ponds. As such, unobstructed migration corridors are an important component of California tiger salamander habitat.

California tiger salamanders emerge during the first heavy, warm rains of the year, typically in late November and early December. In most instances, larger movements of California tiger salamander do not occur unless hard and continuous rainfall has occurred for several hours. Typically, larger movements of California tiger salamander require nighttime temperatures to be above 48 degrees Fahrenheit. During the spring, summer, and fall months, most known populations of the species predominately use California ground squirrel burrows as over-summering habitat. Stock ponds, seasonal wetlands, and deep vernal pools typically provide most of the breeding habitat used by California tiger salamander. Typically, seasonal wetlands that are used for breeding must hold water into the month of May to allow enough time for larvae to fully metamorphose. In dry years, seasonal wetlands may dry too early to allow enough time for California tiger salamander larvae to successfully metamorphose.

Table 4.2-1
Special-Status Species with Potential to Occur Within the Project Vicinity

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Plants				
Blepharizonia plumosa Big tarplant	--	CRPR 1B.1	Occurs in valley and foothill grassland and blooms from July to October. Closest known record located 1.9 miles southwest of the project site (CNDDB Occurrence No. 33).	**None.** The project site has a long history of regular disking and dry wheat farming. Thus, suitable habitat is not present on-site.
Madia radiata Showy golden madia	--	CRPR 1B.1	Occurs in cismontane woodland and valley and foothill grassland. Blooms from March to May. Closest known record located 1.2 miles west of the project site (CNDDB Occurrence No. 25).	**None.** The project site has a long history of regular disking and dry wheat farming. Thus, suitable habitat is not present on-site.
Atriplex depressa Brittlescale	--	CRPR 1B.2	Occurs in chenopod scrub, playas, and valley and foothill grassland (alkaline or clay). Blooms from May to October. Closest known record located 0.5-mile south of the project site (CNDDB Occurrence No. 74).	**None.** The project site has a long history of regular disking and dry wheat farming. Thus, suitable habitat is not present on-site.
Extriplex joaquinana San Joaquin spearscale	--	CRPR 1B.2	Occurs in chenopod scrub, playas, and valley and foothill grassland (alkaline). Blooms from April to October. Closest known record located 0.5-mile south of the project site (CNDDB Occurrence No. 104).	**None.** The project site has a long history of regular disking and dry wheat farming. Thus, suitable habitat is not present on-site.
Hesperolinon breweri Brewer's western flax	--	CRPR 1B.2	Occurs in chaparral, cismontane woodland, and valley and foothill grassland (mostly serpentinite). Blooms from May to July. Closest known record located adjacent west of the project site (CNDDB Occurrence No. 32).	**None.** The project site has a long history of regular disking and dry wheat farming. Thus, suitable habitat is not present on-site.
Oenothera deltoides howellii Antioch dunes evening-primrose	FE	CE, CRPR 1B.1	Occurs in interior dunes. Blooms from March to September. Closest known record located 2.1 miles north of the project site (CNDDB Occurrence No. 12).	**None.** The project site has a long history of regular disking and dry wheat farming. Thus, suitable habitat is not present on-site.

(Continues on next page)

Table 4.2-1
Special-Status Species with Potential to Occur Within the Project Vicinity

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Navarretia nigelliformis radians Shining navarretia	--	CRPR 1B.2	Occurs in cismontane woodland, valley and foothill grassland, and slightly mesic depressions. Blooms from May to June. Closest known record located two miles west of the project site (CNDDB Occurrence No. 81).	**None.** The project site has a long history of regular disking and dry wheat farming. Thus, suitable habitat is not present on-site.
Invertebrates				
Branchinecta lynchi Vernal pool fairy shrimp	FT	--	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains. Inhabits static rain-filled/vernal pools, small, clear water sandstone-depression pools, and grassed swale, earth slump, or basalt-flow depression pools. Closest known record is from 2003, located 2.1 miles west of the project site (CNDDB Occurrence No. 353).	**None.** Suitable habitat is not available on-site.
Lepidurus packardi Vernal pool tadpole shrimp	FE	--	Inhabits large vernal pools with turbid and/or silty water. Mud substrate is typical. Closest known record is from 2003, located 2.9 miles west of the project site (CNDDB Occurrence No. 177).	**None.** Suitable habitat is not available on-site.
Amphibians				
Ambystoma californiense California tiger salamander	FT	CT	Found in grassland habitats of the valleys and foothills. Requires burrows for aestivation and standing water until late spring (May) for larvae to metamorphose. Closest known record for the species is from 2002, located 0.6-mile southwest of the project site (CNDDB Occurrence No. 700).	**Low.** Suitable aquatic habitat is not present on-site, but suitable upland/over-summering habitat is available.

(Continues on next page)

Table 4.2-1
Special-Status Species with Potential to Occur Within the Project Vicinity

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Rana draytonii California red-legged frog	FT	CSC	Occurs in lowlands and foothills in deeper pools and streams, usually with emergent wetland vegetation. Requires 11 to 20 weeks of permanent water for larval development. Closest known record is from 2005, located 1.3 miles west of the project site (CNDDB Occurrence No. 933).	**Moderate**. The species is known to occur in Sand Creek.
Reptiles				
Anniella pulchra Northern California legless lizard	--	CSC	Occurs from the southern edge of the San Joaquin River in northern Contra Costa County south to Ventura County. Inhabits sandy soil/dune area with bush lupine and mock heather as dominant plants. Most soil is essential. Closest known record is approximately from the 1920s, located 2.5 miles southeast of the project site (CNDDB Occurrence No. 10).	**None.** Suitable sandy soil habitat is not available on-site.
Birds				
Elanus leucurus White-tailed kite	--	FP	Found in lower foothills and valley margins with scattered oaks and along river bottomlands or marshes adjacent to oak woodlands. Nests in trees with dense tops. Closest known record is from 2005, located 2.1 miles north of the project site (CNDDB Occurrence No. 87).	**Moderate.** Nesting habitat present in riparian corridor of Sand Creek.
Buteo swainsoni Swainson's hawk	--	CT	Migratory and resident raptor that breeds in open areas with scattered trees. Prefers riparian and sparse oak woodland habitats for nesting. Requires nearby grasslands, grain fields, or alfalfa for foraging. Closest known record is from 2007, located 0.1-mile east along Sand Creek (CNDDB Occurrence No. 1681).	**Moderate.** Nesting habitat present in riparian corridor of Sand Creek.

(Continues on next page)

Table 4.2-1
Special-Status Species with Potential to Occur Within the Project Vicinity

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Aquila chrysaetos Golden eagle	--	FP	Found in rolling foothill grassland with scattered trees. Nests on cliffs and in large trees in open areas. Closest known record is from 2021, located 0.1-mile west of the project site (Monk & Associates sighting).	**Moderate.** Nesting habitat is not present on-site, but suitable nesting habitat is adjacent to the project site.
Athene cunicularia hypugaea Western burrowing owl	--	CSC	Found in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. Closest known records are from 2018, located 0.8-mile northwest of the project site (CNDDB Occurrence Nos. 338, 623, and 651).	**High.** California ground squirrels are present on-site, which facilitates the availability of burrows in which the western burrowing owl can nest.
Agelaius tricolor Tricolored blackbird	--	CT	Colonial nester in dense cattails, tules, brambles, or other dense vegetation. Requires open water, dense vegetation, and open grassy areas for foraging. Closest known record is from 2015, located two miles southwest of the project site (CNDDB Occurrence No. 838).	**Moderate.** The on-site grasslands may be used by the species for foraging. In addition, vegetation in and adjacent to Sand Creek, including patches of wild rose, bulrush, cattails, and willows, could be used by tricolored blackbird for nesting.
Mammals				
Taxidea taxus Amercian badger	--	CSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils, and open, uncultivated ground. Preys on burrowing rodents. Digs burrows. Closest known record for the species is from 2007, located two miles southwest of the project site (CNDDB Occurrence No. 398).	**None.** Suitable is not available on-site.

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Table 4.2-1
Special-Status Species with Potential to Occur Within the Project Vicinity

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Vulpes macrotus mutica San Joaquin kit fox	FE	CT	Core habitat for San Joaquin kit fox is defined as annual grassland, alkali grassland, and oak savanna contiguous with grassland. Secondary foraging habitat occurs in agricultural fields and row crops adjacent to grassland areas. Closest known CNDDB occurrence is approximately three miles southwest of the project site.	**Moderate.** The project site contains ruderal grassland that is within the range of San Joaquin kit fox and is mapped as "suitable core habitat" in the modeled range of the species, as mapped in Appendix D of the ECCC HCP/NCCP.

Status Codes:

Federal:
FE: Federal Endangered
FT: Federal Threatened
FPE: Federal Proposed Endangered
FPT: Federal Proposed Threatened
FC: Federal Candidate
FPD: Proposed for Delisting

State:
CE: California Endangered
CT: California Threatened
CR: California Rare
CC: California Candidate
CSC: California Species of Special Concern
FP: Fully Protected

Source: Monk & Associates, Inc., 2022.

The closest record for California tiger salamander occurs 0.6-mile southwest of the project site (CNDDB Occurrence No. 700). In addition, suitable upland/over-summering habitat is available on-site. However, due to intensive disking, the on-site grasslands are not suitable for California tiger salamander aestivation. Thus, California tiger salamander has *low* potential for occurrence within the project site.

California Red-Legged Frog

The California red-legged frog (CRLF) (*Rana draytonii*) is federally listed as threatened and is a Covered Species under the ECCC HCP/NCP. CRLF are typically found in ponds and slow-flowing portions of perennial and intermittent streams that maintain water in the summer months. The frog is also found in hillside seeps that maintain pool environments or saturated soils throughout the summer months. CRLF prefer riparian vegetation, such as willows, and emergent vegetation, such as cattails, though such habitats are not necessary for the species to be present. CRLF also use upland habitats for migration and dispersal. In locations that are characterized by hot and seasonally dry climates, CRLF are inclined to stay closer to aquatic environments or will not migrate.

The project site is within the range of CRLF, and Sand Creek provides low quality, yet potentially suitable habitat for the species. In addition, the entire site is mapped as "potential migration and aestivation habitat" in the ECCC HCP/NCCP modeled range of CRLF, while Sand Creek and the seasonal wetland are mapped as potential breeding habitat for the species (see Appendix D of the ECCC HCP/NCP). The closest known occurrence is approximately 1.3 miles west of the project site within Sand Creek (CNDDB Occurrence No. 933). Thus, CRLF has *moderate* potential for occurrence within the project site.

White-Tailed Kite

White-tailed kite (*Elanus caeruleus*) is a Fully Protected species, pursuant to California Fish and Game Code (CFGC) Section 3511. Fully protected birds are prohibited from being "taken" or possessed (i.e., kept in captivity) at any time. The white-tailed kite is typically found foraging in grassland, marsh, or cultivated fields where dense-topped trees or shrubs for nesting and perching occur. The species nests in a wide variety of trees of moderate height and sometimes in tall bushes, such as coyote bush (*Baccharis pilularis*). Native trees used for nesting consist of live and deciduous oaks (*Quercus* spp.), willows (*Salix* spp.), cottonwoods (*Populus* spp.), sycamores (*Platanus* spp.), maples (*Acer* spp.), toyon (*Heteromeles arbutifolia*), and Monterey cypress (*Cupressus macrocarpa*). Although the surrounding terrain may be semi-arid, kites often reside near water sources, where prey is more abundant. The particular characteristics of the nesting site do not appear to be as important as the site's proximity to a suitable food source. Kites primarily hunt small mammals, with California meadow voles accounting from between 50 to 100 percent of the species' diet.

The riparian corridor associated with Sand Creek provides potential nesting habitat for white-tailed kite. In addition, the nearest CNDDB record for this species is located 2.1 miles north of the site, with a nest in a pine tree just east of SR 4 (CNDDB Occurrence No. 87). Thus, white-tailed kite has *moderate* potential for occurrence within the project site.

Swainson's Hawk

The Swainson's hawk (*Buteo swainsonii*) is a State-listed threatened species afforded protection pursuant to the CESA and is a Covered Species under the ECCC HCP/NCCP. The Swainson's Hawk is generally a summer visitor to California. In the fall months, most Swainson's hawks

migrate to South America before returning to the U.S. to breed in the late spring. A small population of Swainson's Hawks remain residents in the State year-round. The species inhabits open to semi-open areas at low to middle elevations in valleys, dry meadows, foothills, and level uplands. Swainson's hawk nests almost exclusively in trees and will nest in almost any tree species that is at least 10 feet tall. Nests are constructed in isolated trees that are dead or alive along drainages and in wetlands, or in windbreaks in fields and around farmsteads. Swainson's Hawks occasionally nest in shrubs, on telephone poles, and on the ground. In the Central Valley of California, the majority of Swainson's hawk nests and territories are associated with riparian systems, and nests are commonly found in cottonwoods and oaks. The species has also been documented nesting in eucalyptus (*Eucalyptus* spp.), black walnut (*Juglans hindsii*), black locust (*Robinia pseudoacacia*), almond, Osage orange (*Maclura pomifera*), Arizona cypress (*Cupressus arizonica*), and pine (*Pinus* spp.).

Foraging habitats include alfalfa fields, fallow fields, beet, tomato, and other low-growing row or field crops, dry-land and irrigated pasture, and rice land, when not flooded. The Swainson's hawk generally forages in open habitats with short vegetation containing small mammals, reptiles, birds, and insects. Agricultural areas are often preferred over more natural grassland habitats, due to larger prey populations. In addition, agricultural practices (i.e., planting, maintenance, harvesting, disking) allow for access to prey and very likely increase the foraging success of Swainson's hawks when farm equipment flushes prey during harvesting. During the nesting season, Swainson's hawks usually forage within two miles of their nests.

The project site contains ruderal grassland along the extreme western edge of the range of Swainson's hawks. In addition, several potential nest trees along Sand Creek and in the field north of Sand Creek could be used by the species for nesting. Swainson's hawks were not observed perching or nesting in the trees within the project site or trees visible from the site during April 2020 field surveys conducted as part of the PSR; nevertheless, the grasslands in the site could be used for foraging. In addition, the closest known record of a Swainson's hawk is located 0.1-mile to the east along Sand Creek (CNDDB Occurrence No. 1681). Thus, Swainson's hawk has *moderate* potential for occurrence within the project site.

Golden Eagle

The golden eagle (*Aquila chrysaetos*) is designated as a California Species of Special Concern and is a Covered Species under the ECCC HCP/NCCP. Golden eagles build nests in large trees, often eucalyptus, oaks, or conifers, or on large vertical cliffs, and nest from January until September, with peak nesting occurring from March through July. Typical habitats in North America include savannah woodland habitats, grasslands, aspen parkland, high and low deserts, and in taiga and zone habitats. Family groups usually remain in undisturbed habitats until late summer. The species is very sensitive to disturbance near the nest site, particularly in remote regions where human activities are minimal. On rare occasions nests are found on the ground, especially in expansive prairie habitats where cliffs and/or trees are scarce. Often the species will return each year to the same nest, stacking new sticks on the existing nest structure. Over time, nests can become piled so high with sticks that they topple over leaving huge debris piles beneath trees or at the base of cliffs. Golden eagles feed on fresh carrion or take live prey ranging in size from small rodents to as large as newborn fawns. More typical prey consists of rabbits, hares, and waterfowl.

Golden eagles are known to nest in the bluegum eucalyptus (*Eucalyptus globulus*) growing along the bank of Sand Creek, immediately to the west of the project site (within 0.10-mile). According

to Monk & Associates' observations of golden eagles at the project site, which have occurred since spring of 2018, the golden eagles are acclimated to nearby farming activities, including the use of heavy equipment for disking, planting, and harvesting crops (often occurring twice per year). In addition, a residential subdivision was under construction approximately 1,000 feet north of the eagles' nests from 2018 to 2021; yet, the eagles fledged one young in 2018, two young in 2019, and one young in 2021. Thus, the golden eagle has *moderate* potential for occurrence within the project site.

Western Burrowing Owl

The western burrowing owl is a California Species of Special Concern and a Covered Species under the ECCC HCP/NCCP. Burrowing owl habitat is usually found in annual and perennial grasslands, characterized by low-growing vegetation. Often, the burrowing owl uses rodent burrows, typically California ground squirrel burrows, for nesting and cover. They may also on occasion dig their own burrows or use manmade objects, such as concrete culverts or rip-rap piles, for cover. The species exhibits high site fidelity, reusing burrows year after year. Occupancy of suitable burrowing owl habitat can be verified at a site by observation of the owls during the spring and summer months or, alternatively, the species' molted feathers, cast pellets, prey remains, eggshell fragments, or excrement (whitewash) at or near a burrow. Burrowing owls typically are not observed in grasslands with tall vegetation or wooded areas because the vegetation obscures their ability to detect avian and terrestrial predators. Because burrowing owls spend the majority of their time sitting at the entrances of their burrows, grazed grasslands seem to be their preferred habitat, as the land cover allows them to view the landscape without obstructions.

The project site contains ruderal grassland that is within the range of western burrowing owl. In addition, multiple occurrences of the species have been recorded within 0.8-mile northwest of the project site (CNDDB Occurrence Nos. 338, 623, and 651). Thus, western burrowing owl has *high* potential for occurrence within the project site.

Tricolored Blackbird

The tricolored blackbird (*Agelaius tricolor*) is a State-listed threatened species pursuant to the CESA and a Covered Species under the ECCC HCP/NCCP. A gregarious species, the tricolored blackbird is typically found near freshwater, particularly near marsh habitat. Loss of wetland habitats is regarded as the principal factor responsible for the species' population decline. Nesting colonies are typically found in stands of cattail (*Typha* spp.) and bulrush (*Scirpus* and *Schoenoplectus* spp.); although, they are also known to use blackberry patches (*Rubus* spp.) and thistle clumps (*Cirsium* spp. and *Cynara* spp.) adjacent to water. Flooded lands, margins of ponds, and grassy fields in summer and winter provide typical foraging habitat for the species.

The project site is mapped as "primary foraging habitat" for tricolored blackbird, pursuant to Appendix D of the ECCC HCP/NCCP. The on-site grasslands may be used by the species for foraging. In addition, vegetation in and adjacent to Sand Creek, including patches of wild rose, bulrush, cattails, and willows, could be used by tricolored blackbird for nesting. The closest known record of occurrence for the species is located two miles southwest of the project site (CNDDB Occurrence No. 838). Thus, tricolored blackbird has *moderate* potential for occurrence within the project site.

San Joaquin Kit Fox

The San Joaquin kit fox is federally listed as endangered and State-listed as threatened. In addition, the San Joaquin kit fox is a Covered Species under the ECCC HCP/NCCP. Historically, the species was widely distributed throughout grassland, scrubland and wetland communities in the San Joaquin Valley and adjacent low foothills, but agricultural, urban and industrial development in the valley, including oil and gas development, led to extensive and continuing loss of native habitat, which is the primary threat to kit foxes.[10] Currently, much of the kit fox's remaining habitat is extremely fragmented, movement corridors are degraded or blocked, and only a few large areas of native grasslands remain on the San Joaquin Valley's perimeter.

Within the ECCC HCP/NCCP inventory area, core habitat for the species is defined as annual grassland, alkali grassland, and oak savanna contiguous with grassland. Secondary foraging habitat occurs in agricultural fields and row crops adjacent to grassland areas. Because habitat fragmentation is a significant threat to kit fox, preservation of contiguous habitat is of primary importance. The ECCC HCP/NCCP inventory area represents the northernmost extent of the species' range. As such, the ECCC HCP/NCCP prioritizes maintaining connectivity to Alameda County to the south in order to sustain the species in the inventory area.

The project site contains ruderal grassland within the range of the San Joaquin kit fox and is mapped as "suitable core habitat" in the modeled range of the species, as mapped in Appendix D of the ECCC HCP/NCCP. In addition, the closest known CNDDB occurrence of the species is approximately three miles southwest of the project site. Thus, San Joaquin kit fox has *moderate* potential for occurrence within the project site.

Trees

According to the PSR, the project site contains a total of 49 trees. The majority of on-site trees are located along the Sand Creek riparian corridor, with a few also in and along the edges of the field to the north of Sand Creek (see Figure 4.2-1). Valley oak and almonds are the most dominant tree species, intermixed with lesser numbers of black walnut, California buckeye, willows (*Salix* spp.), toyon (*Heteromeles arbutifolia*), Fremont cottonwood, and a few ornamental tree species. It should be noted that the City of Brentwood has not adopted a tree preservation ordinance that would govern the project site.

4.2.3 REGULATORY CONTEXT

A number of federal, State, and local policies provide the regulatory framework that guides the protection of biological resources. The following discussion summarizes those laws that are most relevant to biological resources in the vicinity of the project site.

Federal Regulations

The following are the federal environmental laws and policies relevant to biological resources.

Federal Endangered Species Act

The U.S. Congress passed the FESA in 1973 to protect species that are endangered or threatened with extinction. FESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend. FESA prohibits the "take" of endangered or threatened wildlife

[10] Center for Biological Diversity. *San Joaquin Kit Fox*. Available at: https://www.biologicaldiversity.org/species/mammals/San_Joaquin_kit_fox/index.html. Accessed March 2023.

species. “Take” is defined to include harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (FESA Section 3 [3], [19]). Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns (50 CFR Section 17.3). Harass is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns (50 CFR Section 17.3). Actions that result in take can result in civil or criminal penalties.

For federally species covered under the ECCC HCP/NCCP, the USFWS has provided regional permits to Contra Costa County and the cities of Brentwood, Clayton, Oakley, and Pittsburg. The foregoing land use agencies may extend permit coverage to project applicants within their jurisdictions for covered projects under the ECCC HCP/NCCP that may impact federally listed species that are covered species under the ECCC HCP/NCCP. Further consultation is not required as long as the covered project complies with ECCC HCP/NCCP requirements. For federally listed species that are not covered species under the ECCC HCP/NCCP, take coverage is required as outlined below.

In the context of the proposed project, FESA consultation with USFWS or the NMFS would be initiated if development resulted in take of a threatened or endangered species not covered under the ECCC HCP/NCCP or if issuance of a Section 404 permit or other federal agency action could result in take of an endangered species not covered under the ECCC HCP/NCCP or adversely modify critical habitat of such a species.

Migratory Bird Treaty Act

Raptors (birds of prey), migratory birds, and other avian species are protected by a number of State and federal laws. The federal Migratory Bird Treaty Act (MBTA) prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior. Section 3503.5 of the CFGC states, “It is unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the code or any regulation adopted pursuant thereto.”

Clean Water Act

The USACE regulates discharge of dredged or fill material into waters of the United States under Section 404 of the Clean Water Act (CWA). “Discharge of fill material” is defined as the addition of fill material into Waters of the U.S., including but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for the construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes and sub-aqueous utility lines (33 Code of Federal Regulations [CFR] Section 328.2[f]). In addition, Section 401 of the CWA (Title 33 of U.S. Code [USC], Section 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Waters of the United States include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, and wet meadows. Wetlands are defined as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and that under normal circumstances do support,

a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR Section 328.3[c]).

Furthermore, jurisdictional waters of the United States can be defined by exhibiting a defined bed and bank and ordinary high-water mark (OHWM). The OHWM is defined by the USACE as "that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR Section 328.3[c][4]).

For covered projects under the ECCC HCP/NCCP, impacts to Section 404 jurisdictional waters are addressed under the Regional General Permit 1 issued by the USACE Sacramento District, which allows a streamlined Section 404 permitting process for covered activities under the ECCC HCP/NCCP that will result in impacts to aquatic resources subject to Section 404 jurisdiction.

State Regulations

The following are the State environmental laws and policies relevant to biological resources.

California Department of Fish and Wildlife

CDFW administers a number of laws and programs designed to protect fish and wildlife resources under the CFGC, such as CESA (CFGC Section 2050, et seq.), Fully Protected Species (CFGC Section 3511) and the Lake or Streambed Alteration Agreement (LSAA) Program (CFGC Sections 1600 to 1616). Such regulations are summarized in the following sections.

California Endangered Species Act

The State of California enacted CESA in 1984. CESA is similar to the FESA but pertains to State-listed endangered and threatened species. CESA requires State agencies to consult with CDFW when preparing CEQA documents to ensure that the State lead agency actions do not jeopardize the existence of listed species. CESA directs agencies to consult with CDFW on projects or actions that could affect listed species, directs CDFW to determine whether jeopardy would occur, and allows CDFW to identify "reasonable and prudent alternatives" to the project consistent with conserving the species. Agencies can approve a project that affects a listed species if they determine that "overriding considerations" exist; however, the agencies are prohibited from approving projects that would result in the extinction of a listed species.

As with FESA, for covered projects that may impact State-listed species under CESA that are also covered species under the ECCC HCP/NCCP, direct consultation with CDFW for State-listed take authorization is not required as long as the covered project complies with ECCC HCP/NCCP requirements. For projects that may result in take of State-listed species that are not ECCC HCP/NCCP Covered Species, CESA directs agencies to consult with CDFW on projects or actions that could affect listed species, directs CDFW to determine whether jeopardy would occur and allows CDFW to identify "reasonable and prudent alternatives" to the project consistent with conserving the species. CESA allows CDFW to authorize exceptions to the State's prohibition against take of a listed species if the "take" of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (CFGC Section 2081).

California Fish and Game Codes

A number of species have been designated "fully protected" species under Sections 5515, 5050, 3511, and 4700 of the CFGC, but are not listed as endangered (Section 2062) or threatened (Section 2067) species under CESA. Except for take related to scientific research, all take of fully

protected species is prohibited. The CFGC defines take as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" (Section 86).

Birds of prey are protected in California under provisions of the CFGC Section 3503.5, which states, "it is unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by CDFW.

Lake or Streambed Alteration Program

The CDFW is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, CFGC Section 1602 requires notification to CDFW of any proposed activity that may substantially modify a river, stream, or lake. Notification is required by any person, business, State or local government agency, or public utility that proposes an activity that will:

- Substantially divert or obstruct the natural flow of any river, stream or lake;
- Substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or
- Deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

For the purposes of Section 1602, rivers, streams, and lakes must flow at least intermittently through a bed or channel. If notification is required and CDFW believes the proposed activity is likely to result in adverse harm to the natural environment, the CDFW will require that the parties enter into a LSAA.

CDFW Species of Special Concern

In addition to formal listings under FESA and CESA, plant and wildlife species receive additional consideration during the CEQA process. Species that may be considered for review are included on a list of "Species of Special Concern" developed by CDFW. Species whose numbers, reproductive success, or habitat may be threatened are tracked by CDFW in California.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. Currently 64 species, subspecies, and varieties of plants are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations, emergencies, and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

Regional Water Quality Control Board

Any action requiring a CWA Section 404 permit, or a Rivers and Harbors Act Section 10 permit, must also obtain a CWA Section 401 Water Quality Certification. The State of California Water Quality Certification (WQC) Program was formally initiated by the State Water Resources Control Board (SWRCB) in 1990 under the requirements stipulated by Section 401 of the federal CWA. Although the CWA is a federal law, Section 401 of the CWA recognizes that states have the

primary authority and responsibility for setting water quality standards. In California, under Section 401, the State and Regional Water Quality Control Boards (RWQCBs) are the authorities that certify that issuance of a federal license or permit does not violate California's water quality standards (i.e., that they do not violate the Porter-Cologne Water Quality Control Act [Porter-Cologne Act, Water Code Section 13000 et seq.] and the Water Code). The WQC Program currently issues the WQC for discharges requiring USACE permits for fill and dredge discharges within waters of the U.S., and also implements the State's wetland protection and hydromodification regulation program under the Porter Cologne Water Quality Control Act.

On April 2, 2019, the SWRCB adopted a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures), for inclusion in the forthcoming Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California Plan. The Procedures consist of four major elements: (1) a wetland definition; (2) a framework for determining if a feature that meets the wetland definition is a water of the State; (3) wetland delineation procedures; and (4) procedures for the submittal, review, and approval of applications for WQCs and Waste Discharge Requirements (WDR) for dredge or fill activities. The State Office of Administrative Law (OAL) approved the Procedures on August 28, 2019, and the Procedures became effective May 28, 2020.

Under the Procedures and the State Water Code (Water Code Section 13050[e]), "waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." Unless excluded by the Procedures, any activity that could result in discharge of dredged or fill material to waters of the State, which includes waters of the U.S. and non-federal waters of the State, requires filing of an application under the Procedures.

The Porter-Cologne Act is California's statutory authority for the protection of water quality in conjunction with the federal CWA. The Porter-Cologne Act requires the SWRCB and RWQCBs under the CWA to adopt and periodically update water quality control plans, or basin plans. Basin plans are plans in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The Porter-Cologne Act also requires dischargers of pollutants or dredged or fill material to notify the RWQCBs of such activities by filing Reports of Waste Discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, National Pollution Discharge Elimination System (NPDES) permits, Section 401 water quality certifications, or other approvals.

Local Regulations

The following are the local environmental laws and policies relevant to biological resources.

East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan

On January 25, 2000, the Contra Costa County Board of Supervisors made a declaration of intent to participate in the development of the ECCC HCP/NCCP. On June 30, 2000, the East Contra Costa County Habitat Conservation Plan Association Agreement went into effect. The agreement established the East Contra Costa Habitat Conservation Plan Association (HCPA) as the lead agency in drafting the ECCC HCP/NCCP for submittal to the governing boards and councils of member agencies, oversee compliance with CEQA and NEPA, and would serve as the lead agency under CEQA for developing the ECCC HCP/NCCP. The City of Brentwood elected to participate in the development of the ECCC HCP/NCCP and was a member of the HCPA.

The USFWS signed the federal permit for the HCP/NCCP on July 25, 2007, and the CDFW signed the State permit for the ECCC HCP/NCCP on August 6, 2007. In October and November of 2007, Contra Costa County and the cities of Brentwood, Clayton, Oakley, and Pittsburg approved ordinances to require future development projects to comply with the ECCC HCP/NCCP. Currently, all participating jurisdictions have approved the ECCC HCP/NCCP and have adopted implementing ordinances and the fee structures set forth in the ECCC HCP/NCCP.

Based on the ECCC HCP/NCCP and the data and analyses referenced therein, a reasonable relationship exists between the use of the ECCC HCP/NCCP mitigation fees authorized by the City of Brentwood and the type of development projects subject to the fees. The ECCC HCP/NCCP Development Fee is used to fund the acquisition of land, the enhancement and management of habitat and other activities that mitigate for impacts to open space habitat and Covered Species caused by development projects. The Wetland Mitigation Fee is used to fund the restoration, creation and management of jurisdictional wetlands and waters and riparian woodland/scrub and other actions in order to mitigate for impacts to jurisdictional wetlands and waters and riparian areas caused by affected development projects. The ECCC HCP/NCCP fees apply to development projects that impact open space, habitat suitable for one or more Covered Species, jurisdictional wetlands and waters, or riparian areas. In this way, the ECCC HCP/NCCP fees are used only for purposes reasonably related to the types of development projects that are subject to the fees.

City of Brentwood General Plan

The following goals and policies from the City of Brentwood General Plan related to biological resources are applicable to the proposed project.

Goal COS 3 Protect and enhance Brentwood's ecosystem and natural habitats.

Policy COS 3-1 Sensitive habitats include creek corridors, wetlands, vernal pools, riparian areas, wildlife and fish migration corridors, native plant nursery sites, waters of the United States, sensitive natural communities, and other habitats designated by State and Federal agencies.

Policy COS 3-2 Preserve and enhance those biological communities that contribute to Brentwood's and the region's biodiversity including, but not limited to, wetlands, riparian areas, aquatic habitat, and agricultural lands.

Policy COS 3-3 Focus conservation efforts on high priority conservation areas that contain suitable habitat for endangered, threatened, migratory, or special-status species and that can be managed with minimal interference with nearby urban land uses.

Policy COS 3-4 Conserve existing native vegetation where possible and integrate regionally native plant species into development and infrastructure projects where appropriate.

Policy COS 3-5 Avoid removal of large, mature trees that provide wildlife habitat or contribute to the visual quality of the environment to the

greatest extent feasible through appropriate project design and building siting. If full avoidance is not possible, prioritize planting of replacement trees on-site over off-site locations.

Goal COS 4 Protect and enhance water resources in local creeks, riparian habitat, wetlands, the Marsh Creek Watershed, and aquatic habitat.

Policy COS 4-1 Where feasible, protect and enhance surface water quality in creeks, streams, channels, seasonal and permanent marshland, wetlands, sloughs, riparian habitat, and vernal pools through sound land use planning, community design, and site planning.

Policy COS 4-6 Where feasible, new development adjacent to creeks and streams should include opportunities for beneficial uses, such as flood control, ecological restoration, public access trails, and walkways.

Policy COS 4-7 Consult with State and Federal agencies during the development review process to help identify wetland and riparian habitat that has candidacy for restoration, conservation, and/or mitigation. Focus restoration and/or conservation efforts on areas that would maximize multiple beneficial uses for such habitat.

Policy COS 4-8 Conserve riparian habitat along local creeks, including but not limited to Marsh Creek, Deer Creek, Dry Creek, and Sand Creek, in order to maintain water quality and provide suitable habitat for native fish and plant species.

4.2.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to biological resources. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, the City's General Plan, and professional judgment, a significant impact would occur if the proposed project would result in the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS;
- Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
- Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan.

Method of Analysis

The information presented in this chapter is primarily based on the PSR prepared by Moore Biological Consultants, as well as the Letter Summarizing Wildlife and Plant Resources prepared by Monk & Associates.

Planning Survey Report

The analysis within the PSR (see Appendix E of this REIR) is based on a query of the CNDDB and field surveys of the project site. Initial surveys to assess potentially suitable on-site habitat for special-status species were undertaken almost a decade ago, on July 12, 2012 and February 8 and April 30, 2013. Focused surveys for special-status plant and wildlife species were undertaken on April 1, 9, 16, and 30, 2020 by Moore Biological Consultants. The project site was systematically searched by walking throughout the site, identifying plants as possible in the field, and collecting specimens for subsequent identification in the laboratory. The field survey was floristic in nature with the goal of identifying species observed to the taxonomic level necessary to determine if a plant was a special-status species. A final survey was conducted on January 13, 2022 to confirm that the suitability (or lack thereof) of the project site to support special-status plant and wildlife species had not changed since the 2020 surveys.

In addition, a wetland delineation of the project site was conducted on April 1 and April 16, 2020. The mapped wetland boundaries were confirmed in the field on January 5, 2022. A total of approximately 4.7 acres of aquatic resources were mapped in the project site in accordance with the USACE 1987 Wetlands Delineation Manual and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region.

Finally, as established in the PSR, the developer, the City of Brentwood, and the East Contra Costa County Habitat Conservancy entered into a Multi-Party Mitigation and Land Dedication In-Lieu of Development Fee Agreement dated August 26, 2019 (Mitigation Agreement) in which developer will pay an adjusted HCP Development Fee and dedicate property upon mutually agreed terms and provisions.

Letter Summarizing Wildlife and Plant Resources

As part of the Letter Summarizing Wildlife and Plant Resources, Monk & Associates conducted preliminary research of the most recent version of the CNDDB for historic and recent records of special-status plant and wildlife species known to occur within three miles of the project site. All special-status species records are compiled in Tables 1 and 2 of the Letter Summarizing Wildlife and Plant Resources. Monk & Associates reviewed all known records to determine if special-status species could occur within the project site or within an area of influence of the project site.

In addition, Monk & Associates conducted a field reconnaissance of the project site and surrounding area on March 29, 2022. During the survey, plant communities and wildlife habitats were recorded and Sand Creek's top of bank and OHWM were mapped using a handheld global

positioning system (GPS) with submeter accuracy. Any microhabitats that could support special-status plant or animal species were also noted.

Finally, Monk & Associates has a long history of working in the general project vicinity and most recently have extensively surveyed three sites in the City of Antioch immediately west, northwest, and southwest of the project site. On the aforementioned three adjacent sites, Monk & Associates conducted wildlife preconstruction surveys, rare plant surveys, and construction monitoring, as well as CEQA biological resources analyses for each of the site's development projects, obtaining all resource agency required permits. Experience on the adjacent projects was informative for the Sand Creek Road Extension Project, whose site is contiguous with the Bridle Gate project site.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts related to biological resources is based on implementation of the proposed project in comparison to existing conditions and the standards of significance presented above.

4.2-1 Impacts to special-status plant species either directly (e.g., threaten to eliminate a plant community) or through substantial habitat modifications. Based on the analysis below, the impact is *less than significant*.

As discussed above, the project site is vegetated with 127.37 acres of ruderal grassland vegetation that has been highly disturbed by agricultural use and ground disturbance related to construction SR 4. The on-site grasslands have been graded and re-graded numerous times over the years and are routinely disked.

According to the CNDDB records search conducted as part of the Letter Summarizing Wildlife and Plant Resources, seven special-status plant species have the potential to occur in the surrounding project vicinity. However, pursuant to the PSR, the on-site ruderal grassland does not provide potentially suitable habitat for any special-status plants, including those designated as Covered Species under the ECCC HCP/NCCP. Additionally, alkaline soils are not present on-site, which further limits the potential for special-status plant species such as brittlescale or San Joaquin spearscale to occur. Furthermore, the seasonal wetland located in the western portion of the site is also highly disturbed and provides very poor habitat for covered plants that occur in seasonal wetland habitats (i.e., alkali milkvetch and Contra Costa goldfields).

Finally, as required by ECCC HCP/NCCP Section 6.3.1, planning surveys as part of the PSR were conducted of the project site in 2012, 2013, 2020, and 2022. Pursuant to the PSR, neither Covered Species, nor No-Take species were observed on-site during the surveys. Thus, the proposed project is not subject to additional measures set forth by the ECCC HCP/NCCP to avoid potential impacts to protected plant species, as such species do not occur on-site.

Overall, due to the ongoing disturbance to which the project site is subjected, as well as the current on-site soil conditions, special-status plant species, including those covered under the ECCC HCP/NCCP, do not occur on-site.

Based on the above, the proposed project would not result in impacts to special-status plant species either directly or through substantial habitat modifications, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

4.2-2 Impacts to California tiger salamander either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. Based on the analysis below, the impact is *less than significant*.

California tiger salamanders occur in grasslands and open oak woodlands that provide suitable over-summering and/or breeding habitats, and the species spends the majority of their lives underground. However, due to the routine intensive disking that occurs within the project site, the PSR determined that the on-site grasslands are not suitable for California tiger salamander aestivation. In addition, while the species emerges from their subterranean refugia for a few nights each year during the rainy season to migrate to breeding ponds, the seasonal wetland in the site's western portion does not provide suitable breeding habitat, due to the hydrological regime of the wetland, which has surface water present only during or shortly after rain events and is highly disturbed from periodic disking and alfalfa farming. As such, the PSR found that due to the ongoing disturbance to which the project site is subjected, as well as the current on-site wetland conditions, California tiger salamander aestivation would not occur on-site.

Based on the above, the proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on California tiger salamander, a wildlife species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

4.2-3 Impacts to California red-legged frog either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The project site is within the range of CRLF. The PSR found that Sand Creek provides potentially suitable, yet low quality, habitat for the species. In addition, the entire project site is mapped as "potential migration and aestivation habitat" in the ECCC HCP/NCCP's modeled range of the species (see Appendix D of the ECCC

HCP/NCCP). Sand Creek and the on-site seasonal wetland are also mapped as potential breeding habitat for the species.

The PSR determined that notable plunge pools do not occur within Sand Creek, which limits the amount of highly suitable breeding habitat available to the species within the creek. Furthermore, due to the wetland's hydrological regime, the on-site seasonal wetland does not provide suitable CRLF breeding habitat. Nevertheless, while the species would not be expected to aestivate on-site, due to the site's routine disking activities, CRLF may travel across the on-site grasslands while dispersing from aquatic habitats. Thus, if the species were to migrate across the project site during project construction, the proposed project could result in direct impacts to CRLF. To ensure substantial adverse effects do not occur to the species, which is covered under the ECCC HCP/NCCP, the proposed project would be required to comply with the Species-Level Measures set forth in Section 6.4.3 of the ECCC HCP/NCCP, which necessitates written notification to USFWS and CDFW, including photos and habitat assessment prior to disturbance of any suitable breeding habitat. The project applicant would additionally be required to allow USFWS and CDFW access to the site prior to construction, if the aforementioned agencies request access.

Based on the above, without compliance with the Species-Level Measures set forth in Section 6.4.3 of the ECCC HCP/NCCP, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on CRLF, a wildlife species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.2-3(a) *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: Prior to the commencement of construction activities, the project proponent shall provide written notification to the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), and the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (ECCC HCP/NCCP) Implementing Entity, including site photos and California red-legged frog (CRLF) habitat assessment. The project proponent shall also notify these parties of the approximate date of removal of the CRLF breeding habitat at least 30 days prior to this removal to allow USFWS or CDFW staff to translocate individuals, if requested. USFWS or CDFW must notify the project proponent of their intent to translocate CRLF within 14 days of receiving notice from the project proponent. The applicant must allow USFWS or CDFW access to the site prior to construction if they request it.*

In accordance with the ECCC HCP/NCCP, restrictions on the nature of the disturbance or the date of the disturbance shall not be assessed on the project, unless CDFW or USFWS notify the project proponent of

their intent to translocate individuals within the required time period. In this case, the project proponent must coordinate the timing of disturbance of the breeding habitat to allow USFWS or CDFW to translocate the individuals. USFWS and CDFW shall be allowed 45 days to translocate individuals from the date the first written notification was submitted by the project proponent (or a longer period agreed to by the project proponent, USFWS, and CDFW). A report detailing compliance with the provisions established herein shall be submitted for review and approval to the City of Brentwood Community Development Department.

4.2-3(b) *ECCC HCP/NCCP Section 6.3.3 Measure: Prior to implementation of a covered activity, the project applicant shall develop and submit a Construction Monitoring Plan to the City of Brentwood Community Development Department and the East Contra Costa County Habitat Conservancy for review and approval, detailing the methods in which the proposed project would avoid potential impacts to Covered Species during project construction, including CRLF, Swainson's hawk, golden eagle, western burrowing owl, tricolored blackbird, and San Joaquin kit fox. Elements of the Construction Monitoring Plan shall include the following:*

- *Results of planning and preconstruction surveys;*
- *Description of avoidance and minimization measures to be implemented, including a description of project-specific refinements to the measures or additional measures not included in the ECCC HCP/NCCP;*
- *Description of monitoring activities, including monitoring frequency and duration, and specific activities to be monitored; and*
- *Description of the on-site authority of the construction monitor to modify implementation of the activity.*

4.2-4 Impacts to Swainson's hawk either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As previously discussed, the Swainson's hawk generally forages in open habitats comprised of short vegetation, with agricultural areas often preferred over more natural grassland habitats, due to larger prey populations, such as small mammals, reptiles, birds, and insects. Thus, the project site's ruderal grassland, which is currently used for dry farming, provides suitable foraging habitat for the species. In addition, the PSR determined that the riparian corridor associated with Sand Creek offers potential nesting trees, as does the field north of Sand Creek. Should the species be nesting in the aforementioned areas, development of the proposed project could lead to the

incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment, resulting in a significant impact to the Swainson's hawk.

To ensure substantial adverse effects do not occur to Swainson's hawk, which is covered under the ECCC HCP/NCCP, the proposed project would be required to comply with the Species-Level Measures set forth in Section 6.4.3 of the ECCC HCP/NCCP, which necessitates that a qualified biologist conduct a preconstruction survey for areas proposed for disturbance, should such activities occur during the nesting season, and further provisions if active nests within 1,000 feet of the project site are identified. Additionally, potential impacts to the on-site foraging habitat would be addressed through the project's payment of the ECCC HCP/NCCP Development Fee, which is used to fund the acquisition of land, the enhancement and management of habitat, and other activities that mitigate for impacts to open space habitat and Covered Species.

Based on the above, without compliance with the Species-Level Measures set forth in Section 6.4.3 of the ECCC HCP/NCCP, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on Swainson's hawk, a wildlife species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.2-4(a) *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: Prior to any ground disturbance related to covered activities associated with the proposed project during the nesting season (March 15 to September 15), a qualified biologist shall conduct a preconstruction survey, at most, one month prior to construction to establish whether Swainson's hawk nests within 1,000 feet of the project site are occupied. If potentially occupied nests within 1,000 feet are off the project site, then their occupancy shall be determined by observation from public roads or by observations of Swainson's hawk activity (e.g., foraging) near the project site. If nests are occupied, minimization measures and construction monitoring shall be required, as set forth in Mitigation Measure 4.2-4(b). A report detailing the methodology and results of the survey shall be submitted for review and approval to the City of Brentwood Community Development Department.*

4.2-4(b) *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: During the nesting season (March 15 to September 15), covered activities associated with the proposed project within 1,000 feet of occupied nests or nests under construction shall be prohibited to prevent nest abandonment. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be used, the ECCC HCP/NCCP*

Implementing Entity shall coordinate with CDFW/USFWS to determine the appropriate buffer size.

If young fledge prior to September 15, covered activities can proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant can apply to the Implementing Entity for a waiver of this avoidance measure. Any waiver must also be approved by USFWS and CDFW. While the nest is occupied, activities outside the buffer can take place. A report detailing compliance with the provisions established herein shall be submitted for review and approval to the City of Brentwood Community Development Department.

All active nest trees shall be preserved on site, if feasible. Nest trees, including non-native trees, lost to covered activities shall be mitigated by the project proponent, in accordance with the requirements set forth in Mitigation Measure 4.2-4(c).

4.2-4(c) *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: Prior to submittal of the of the final improvement plans, the project applicant shall demonstrate that the final project design will not result in the loss of non-riparian trees in areas proposed for disturbance. If the final project design results in the loss of non-riparian Swainson's hawk nest trees, such trees shall be mitigated by the project proponent by:*

- *If feasible on-site, planting 15 saplings for every nest tree lost with the objective of having at least five mature trees established for every nest tree lost according to the requirements listed below.*

  AND either

  1) *Pay the Implementing Entity an additional fee to purchase, plant, maintain, and monitor 15 saplings on the HCP/NCCP Preserve System for every tree lost according to the requirements listed below, OR*
  2) *The project proponent shall plant, maintain, and monitor 15 saplings for every tree lost on-site or in off-site areas, which shall be approved by the Implementing Entity (e.g., within an HCP/NCCP Preserve or existing open space linked to HCP/NCCP preserves), according to the requirements listed below.*

     - *Tree survival shall be monitored at least annually for five years, then every other year until year 12. All trees lost during the first five years shall be replaced. Success shall be reached at the end of 12 years if at least five trees per tree lost survive without supplemental irrigation or protection from herbivory.*

Trees must also survive for at least three years without irrigation.

- *Irrigation and fencing to protect from deer and other herbivores may be needed for the first several years to ensure maximum tree survival.*
- *Native trees suitable for the project site shall be planted. When site conditions permit, a variety of native trees shall be planted for each tree lost to provide trees with different growth rates, maturation, and lifespan, and to provide a variety of tree canopy structures for Swainson's hawk. The variety shall help to ensure that nest trees are available in the short term (five to 10 years for cottonwoods and willows) and in the long term (e.g., valley oak, sycamore) and shall also minimize the temporal loss of nest trees.*
- *Riparian woodland restoration conducted as a result of covered activities (i.e., loss of riparian woodland) can be used to offset the nest tree planting requirement above, if the nest trees are riparian species.*
- *Whenever feasible and when site conditions permit, trees shall be planted in clumps together or with existing trees to provide larger areas of suitable nesting habitat and to create a natural buffer between nest trees and adjacent development (if plantings occur on the development site).*
- *Whenever feasible, plantings in the project site shall occur closest to suitable foraging habitat outside the ECCC HCP/NCCP Urban Development Area (UDA).*
- *Trees planted in the HCP/NCCP Preserves or other approved offsite location shall occur within the known range of Swainson's hawk in the inventory area and as close as possible to high-quality foraging habitat.*

A decrease of the number of years that newly planted nest trees must be monitored shall be at the discretion of the East Contra Costa County Habitat Conservancy and City of Brentwood. A report detailing compliance with the provisions established herein shall be submitted for review and approval to the City of Brentwood Community Development Department.

4.2-5 Impacts to golden eagle either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Similar to Impact 4.2-4's discussion of available nesting habitat to support the Swainson's hawk, the PSR determined that the riparian corridor associated with Sand Creek offers potential nesting trees to support the golden eagle. As part of the focused surveys completed for the PSR, trees in and visible from the project site were inspected for raptor stick nests. Only one nest was observed along Sand Creek, which was occupied by great-horned owls. In addition, the 2020 and 2022 focused surveys did not identify occurrences of the species. Nevertheless, as the riparian corridor along Sand Creek provides suitable nesting habitats, should nesting golden eagles occupy trees in the corridor in the future, prior to project construction, development of the proposed project could lead to the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment, resulting in a significant impact to the golden eagle.

To ensure substantial adverse effects do not occur to the golden eagle, which is covered under the ECCC HCP/NCCP, the proposed project would be required to comply with the Species-Level Measures set forth in Section 6.4.3 of the ECCC HCP/NCCP, which necessitates that a qualified biologist conduct a preconstruction survey for areas proposed for disturbance and further provisions if active nests within the project vicinity are identified, including the establishment of 0.5-mile non-disturbance buffers for active nests.

Based on the above, without compliance with the Species-Level Measures set forth in Section 6.4.3 of the ECCC HCP/NCCP, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on golden eagle, a wildlife species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.2-5(a) *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: Prior to implementation of covered activities, a qualified biologist shall conduct a preconstruction survey to establish whether nests of golden eagles are occupied in accordance with the applicable criteria set forth in Section 6.3.1, Planning Surveys, of the ECCC HCP/NCCP. If nests are occupied, minimization requirements and construction monitoring shall be required, as set forth in Mitigation Measures 4.2-5(b) and 4.2-5(c). A report detailing the methodology and results of the survey shall be submitted for review and approval to the City of Brentwood Community Development Department.*

4.2-5(b) *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: If active golden eagle nests are identified by the qualified biologist that could be impacted by the proposed project, during project construction, covered activities shall be prohibited within 0.5-mile of active nests. Nests can be built and active at almost any time of the year, although mating and egg incubation occurs from late January through August, with peak activity in March through July. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be appropriate or that a larger buffer should be implemented, the Implementing Entity shall coordinate with CDFG/USFWS to determine the appropriate buffer size. A report detailing compliance with the provisions established herein shall be submitted for review and approval to the City of Brentwood Community Development Department.*

4.2-5(c) *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: During project construction, a qualified biologist shall provide on-site construction monitoring to ensure that covered activities do not occur within the non-disturbance buffer zone established around an active golden eagle nest. Although known golden eagle nest sites do not occur within or near the ECCC HCP/NCCP Urban Limit Line (ULL), covered activities inside and outside of the Preserve System have the potential to disturb golden eagle nest sites. Construction monitoring shall ensure that direct effects to golden eagles are minimized. A report detailing compliance with the provisions established herein shall be submitted for review and approval to the City of Brentwood Community Development Department.*

4.2-6 Impacts to western burrowing owl either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The project site contains ruderal grassland that is within the range of western burrowing owl. As previously discussed, burrowing owl habitat is usually found in annual and perennial grasslands, characterized by low-growing vegetation. Thus, the site provides suitable habitat to accommodate the species. Although western burrowing owls were not observed in the project site during the focused surveys conducted as part of the PSR, nor were burrows with evidence of burrowing owl occupancy identified, should ground squirrels colonize the project site prior to project construction, western burrowing owls could occupy the site prior to the commencement of the proposed ground-disturbing activities. In such case, development of the proposed project could lead to the incidental result in a significant impact to the species.

To ensure substantial adverse effects do not occur to western burrowing owl, which is covered under the ECCC HCP/NCCP, the proposed project would be required to

comply with the Species-Level Measures set forth in Section 6.4.3 of the ECCC HCP/NCCP, which necessitates that a qualified biologist conduct a preconstruction survey of the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. In the event that the species is identified in the foregoing areas, the project would be subject to avoidance and minimization guidelines from CDFW's Staff Report on Burrowing Owl Mitigation.

Based on the above, without compliance with the Species-Level Measures set forth in Section 6.4.3 of the ECCC HCP/NCCP, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on western burrowing owl, a wildlife species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.2-6(a) *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: Prior to any ground disturbance related to covered activities, a USFWS/CDFW-approved biologist shall conduct a preconstruction survey in areas identified in the planning surveys completed for the proposed project as having potential burrowing owl habitat. The preconstruction surveys shall establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls, in accordance with CDFW survey guidelines.*

On areas where activities are proposed, the biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership shall not be surveyed. Surveys shall take place near sunrise or sunset, in accordance with CDFW guidelines. All burrows or burrowing owls shall be identified and mapped. Surveys shall take place, at most, 30 days prior to construction. During the breeding season (February 1 to August 31), surveys shall document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1 to January 31), surveys shall document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results shall be valid only for the season (breeding or nonbreeding) during which the survey is conducted. A report detailing the methodology and results of the survey shall be submitted for review and approval to the City of Brentwood Community Development Department.

4.2-6(b) *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: If burrowing owls are found during the breeding season (February 1 to August 31), in accordance with the CDFW's Staff Report on Burrowing Owl Mitigation, the project proponent shall avoid all nest sites that could be*

disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance shall include establishment of a non-disturbance buffer zone (as described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 to January 31), the project proponent shall avoid the owls and the burrows they are using, if possible. Avoidance shall include the establishment of a buffer zone (as described below).

During the breeding season, buffer zones of at least 250 feet in which construction activities cannot occur shall be established around each occupied burrow (nest site). Buffer zones of 160 feet shall be established around each burrow being used during the nonbreeding season. The buffers shall be delineated by highly visible, temporary construction fencing.

If occupied burrows for burrowing owls are not avoided, passive relocation shall be implemented. Owls shall be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. The doors shall be in place for 48 hours, prior to excavation. The project area shall be monitored daily for one week to confirm that the owl has abandoned the burrow. Whenever possible, burrows shall be excavated using hand tools and refilled to prevent reoccupation. Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow. A report detailing compliance with the provisions established herein shall be submitted for review and approval to the City of Brentwood Community Development Department.

4.2-7 Impacts to white-tailed kite, tricolored blackbird, and nesting birds and raptors protected under the MBTA and CFGC either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The vegetation communities within the project site provide suitable nesting habitat to accommodate white-tailed kite, tricolored blackbird, and nesting songbirds and raptors protected under the MBTA and CGFC. For example, the riparian corridor associated with Sand Creek provides potential nesting habitat for white-tailed kite, which nest in a wide variety of trees of moderate height and sometimes in tall bushes. In addition, the on-site grassland provides potential foraging habitat for the species, which is typically found foraging in grassland, marsh, or cultivated fields where dense-topped trees or shrubs for nesting and perching occur. Similarly, the tricolored blackbird, a Covered Species under the ECCC HCP/NCCP, could nest in the Sand Creek riparian

corridor and forage in the on-site grasslands. Furthermore, the foregoing areas could also be used for nesting and foraging by other nesting bird and raptor species protected under the MBTA and CFGC. Should white-tailed kite, tricolored blackbird, and other songbirds and raptors be nesting in or adjacent to areas proposed for disturbance as part of the proposed project, development of the proposed project could lead to the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment, resulting in a significant impact.

Based on the above, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on white-tailed kite, tricolored blackbird, and other nesting songbirds and raptor species protected under the MBTA and CFGC. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.2-7(a) *Prior to any ground disturbance related to covered activities that occur during the nesting season for white-tailed kite (March 15 to August 31), a qualified biologist shall conduct a preconstruction survey, at most, one month prior to construction to establish whether white-tailed kite is nesting in trees within or visible from the site. In the event active nests are found, an initial 300-foot buffer shall be established around the nest tree. Ground disturbance related to covered activities within the buffer shall either be delayed until a qualified biologist determines nesting is complete, or until the applicant consults with the ECCC HCP/NCCP Implementing Entity and CDFW and implements CDFW-approved measures to minimize potential disturbance. A report detailing the methodology and results of the survey and, if applicable, compliance with the provisions established herein shall be submitted for review and approval to the City of Brentwood Community Development Department.*

4.2-7(b) *If possible, any ground disturbance related to covered activities shall occur outside of the general bird nesting season (February 1 to August 31). Alternately, a qualified biologist shall conduct a preconstruction survey, at most, two weeks prior to any ground disturbance related to covered activities. In the event active raptors or tricolored blackbird nests are found, an initial 300-foot buffer shall be established around the nests. In the event nests of other birds are found, an initial 50-foot buffer shall be established around the nest. Ground disturbance related to covered activities within the buffers shall either be delayed until a qualified biologist determines nesting is complete, or until the applicant consults with the ECCC HCP/NCCP Implementing Entity and CDFW and implements CDFW-approved measures to minimize potential disturbance. A report detailing the methodology and results of the survey and, if applicable, compliance with the provisions established herein shall be submitted for review and approval to the City of Brentwood Community Development Department.*

4.2-8 Impacts to San Joaquin kit fox either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The project site's ruderal grassland, which is currently used for dry farming, could potentially accommodate San Joaquin kit fox, an ECCC HCP/NCCP Covered Species whose core habitat is defined as annual grassland, alkali grassland, and oak savanna contiguous with grassland, with secondary foraging habitat occurring in agricultural fields and row crops adjacent to grassland areas. The fields surveys conducted as part of the PSR observed burrows within the project site; however, dens with appropriate dimensions and/or evidence of San Joaquin kit fox were not identified. Nevertheless, given that suitable habitat occurs on-site, development of the proposed project could result in a significant impact to San Joaquin kit fox, should the species occupy the site prior to project construction.

To ensure substantial adverse effects do not occur to the San Joaquin kit fox, the proposed project would be required to comply with the Species-Level Measures set forth in Section 6.4.3 of the ECCC HCP/NCCP, which necessitates that a qualified biologist conduct a preconstruction survey of areas identified in the focused surveys as being capable of supporting suitable breeding or denning habitat, in accordance with applicable USFWS survey guidelines. If kit foxes or occupied dens are identified, further provisions set forth by Section 6.4.3 of the ECCC HCP/NCCP would be required.

Based on the above, without compliance with the Species-Level Measures set forth in Section 6.4.3 of the ECCC HCP/NCCP, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on San Joaquin kit fox, a wildlife species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.2-8(a) *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: Prior to any ground disturbance related to covered activities, a USFWS/CDFW-approved biologist shall conduct a preconstruction survey in areas identified in the planning surveys conducted for the proposed project as supporting suitable breeding or denning habitat for San Joaquin kit fox. The surveys shall establish the presence or absence of San Joaquin kit foxes and/or suitable dens and evaluate use by kit foxes in accordance with USFWS survey guidelines. Preconstruction surveys shall be conducted within 30 days of ground disturbance. On areas where activities are proposed, the biologist shall survey the proposed disturbance footprint and a 250-foot radius from the perimeter of the*

proposed footprint to identify San Joaquin kit foxes and/or suitable dens. Adjacent parcels under different land ownership shall not be surveyed. The status of all dens shall be determined and mapped. Written results of preconstruction surveys shall be submitted to USFWS and the City of Brentwood Community Development Department within five working days after survey completion and before the start of ground disturbance. Concurrence is not required prior to initiation of covered activities.

4.2-8(b) *ECCC HCP/NCCP Section 6.4.3 Species-Level Measure: If San Joaquin kit foxes and/or suitable dens are identified in the survey area, the following measures shall be implemented, prior to the commencement of project construction:*

- *If a San Joaquin kit fox den is discovered in the proposed development footprint, the den shall be monitored for three days by a USFWS/CDFW-approved biologist using a tracking medium or an infrared beam camera to determine if the den is currently being used;*
- *Unoccupied dens shall be destroyed immediately to prevent subsequent use;*
- *If a natal or pupping den is found, USFWS and CDFW shall be notified immediately. The den shall not be destroyed until the pups and adults have vacated, and then, only after further consultation with USFWS and CDFW;*
- *If kit fox activity is observed at the den during the initial monitoring period, the den shall be monitored for an additional five consecutive days from the time of the first observation to allow any resident animals to move to another den while den use is actively discouraged. For dens other than natal or pupping dens, use of the den can be discouraged by partially plugging the entrance with soil, such that any resident animal can easily escape. Once the den is determined to be unoccupied it may be excavated under the direction of the biologist. Alternatively, if the animal is still present after five or more consecutive days of plugging and monitoring, the den may have to be excavated when, in the judgment of a biologist, it is temporarily vacant (i.e., during the animal's normal foraging activities).*

A report detailing compliance with the provisions established herein shall be submitted for review and approval to the City of Brentwood Community Development Department.

4.2-9 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Pursuant to the PSR and as shown in Figure 4.2-1, the project site contains a total of 3.35 acres of riparian woodland/scrub. As currently designed, the proposed project would not include removal of any of the on-site riparian/woodland scrub. Therefore, potential impacts are not anticipated. However, as the final project design has not been prepared and out of an abundance of caution, the proposed project would be subject to applicable provisions of the ECCC HCP/NCCP, including Conservation Measure 1.7, which sets forth various requirements related to stream setbacks, as well as if found to be necessary, a Section 404 permit.

Based on the above, without compliance with Section 404 of the CWA and/or ECCC HCP/NCCP Conservation Measure 1.7, the proposed project could have a substantial adverse effect on riparian habitat, which is identified by the CDFW a Sensitive Natural Community, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.2-9(a) *Implement Mitigation Measure 4.2-10(c).*

4.2-9(b) *ECCC HCP/NCCP Conservation Measure 1.7: Prior to submittal of the of the final improvement plans, the project applicant shall ensure that a minimum 75-foot setback from the top of the bank of Sand Creek has been incorporated into the final project design. Incorporation of the foregoing setback shall be subject to review and approval by the City of Brentwood Community Development Department.*

4.2-10 Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Wetlands are generally considered to be areas that are periodically or permanently inundated by surface or groundwater, and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and flood waters, and water recharge, filtration, and purification functions. The USACE, CDFW, and RWQCB have jurisdiction over modifications to stream channels, river banks, lakes, and other wetland features. The USACE's jurisdiction is established through the provisions of Section 404 of the CWA, which prohibits the

discharge of dredged or fill material into waters of the U.S. without a permit, including certain wetlands and unvegetated "other waters of the U.S." The jurisdictional authority of the RWQCB is established pursuant to Section 401 of the CWA, which typically requires a water quality certification when an individual or nationwide permit is issued by the USACE. The RWQCB also has jurisdiction over waters of the State under the Porter-Cologne Water Quality Control Act.

As discussed previously, as part of the PSR, a total of approximately 4.7 acres of aquatic resources were mapped within the project site, including 4.59 acres of seasonal wetland in the western portion of the site and 0.112-acre of stream (Sand Creek). The seasonal wetland, located within the 25-acre portion of the project site that would be preserved as permanent open space (Parcel I) would be avoided by the proposed project. To ensure the proposed project does not result in impacts to the 0.112-acre of stream, the project would be subject to ECCC HCP/NCCP Conservation Measure 1.7, which sets forth various requirements related to stream setbacks. The project would also be subject to Conservation Measure 1.10, which necessitates compliance with provisions related to the NPDES Construction General Permit, such as preparation of a Storm Water Pollution Prevention Plan (SWPPP). The project would also be subject to Conservation Measure 2.12, which requires additional provisions related to erosion control. Finally, if determined necessary, the proposed project would be required to obtain a CWA Section 404 permit from the USACE and a Section 401 permit from the RWQCB and would be subject to all the conditions set forth therein.

Based on the above, without compliance with ECCC HCP/NCCP Conservation Measures 1.10 and 2.12, the proposed project could have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Therefore, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.2-10(a) *ECCC HCP/NCCP Conservation Measure 1.10: Prior to submittal of the of the final improvement plans, the project applicant shall develop a Storm Water Pollution Prevention Plan (SWPPP) that identifies best management practices (BMPs) to be implemented to minimize the introduction of foreign material into waterbodies, control stormwater runoff, minimize erosion and sedimentation, and limit the amount of surface disturbance to the area.*

Standard construction BMPs shall be employed during construction to minimize the potential for erosion and off-site transport of fines. BMPs shall include use of water trucks, appropriate compaction of soil, and installation of straw wattles, silt fences or other technologies along the perimeter of the site during construction, and stabilization of bare soils as appropriate with seeding, straw, and/or hydromulch.

The SWPPP shall be submitted for review and approval to the City Engineer.

4.2-10(b) *ECCC HCP/NCCP Conservation Measure 2.12: Prior to submittal of the final improvement plans, the project applicant shall incorporate the following measures into the final project design, which shall be submitted for review and approval to the City of Brentwood Community Development Department:*

- *The project shall comply with the stream setback requirements in Conservation Measure 1.7;*
- *The project shall comply with the guidelines in Conservation Measure 1.10 to minimize the effects of urban development on downstream hydrology, streams, and wetlands;*
- *All wetlands to be avoided by covered activities shall be temporarily staked in the field by a qualified biologist;*
- *The project shall establish a buffer zone between Sand Creek and development, as described in Conservation Measure 1.7;*
- *Personnel conducting ground-disturbing activities adjacent to the seasonal wetland in the western portion of the site or the buffer zone along Sand Creek shall be trained by a qualified biologist in the avoidance and minimization requirements and the permit obligations of project proponents working under the ECCC HCP/NCCP. Vehicles and equipment shall be parked on pavement, existing roads, and previously disturbed areas;*
- *Trash generated during project construction shall be promptly and properly removed from the site;*
- *Construction or maintenance vehicles shall not be refueled within 200 feet of Sand Creek or the seasonal wetland unless a bermed and lined refueling area is constructed and hazardous material absorbent pads are available in the event of a spill;*
- *Appropriate erosion-control measures (e.g., fiber rolls, filter fences, vegetative buffer strips) shall be used on-site to reduce siltation and runoff of contaminants into Sand Creek or the seasonal wetland. Filter fences and mesh shall be of material that will not entrap reptiles and amphibians. Erosion-control blankets shall be used as a last resort because of their tendency to biodegrade slowly and trap reptiles and amphibians;*
- *Fiber rolls used for erosion-control shall be certified as free of noxious weed seed;*
- *Seed mixtures applied for erosion-control shall not contain invasive non-native species, and shall be composed of native species or sterile nonnative species; and*
- *Herbicides shall not be applied within the buffer area along Sand Creek unless needed to control serious invasive plants. In such case, herbicides that have been approved for use by U.S. Environmental Protection Agency (USEPA) in or adjacent to aquatic habitats may be used, as long as label instructions are followed and applications avoid or minimize impacts on*

Covered Species and their habitats. Appropriate herbicides may be applied to the ruderal grassland within the buffer area during the dry season to control nonnative invasive species, such as yellow star-thistle. Herbicide drift shall be minimized by applying the herbicide as close to the target area as possible.

4.2-10(c) *If a Clean Water Act (CWA) Section 404 permit is determined to be necessary, prior to the issuance of grading permits, the project applicant shall apply for a Section 404 permit from the U.S. Army Corps of Engineers (USACE). Waters that would be lost or disturbed shall be restored, replaced or rehabilitated on a "no-net-loss" basis. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods acceptable to the USACE. In the event that a Section 404 permit is required, the project applicant shall also apply for a Section 401 water quality certification from the Regional Water Quality Control Board (RWQCB) prior to the issuance of grading permits and adhere to the certification conditions therein.*

4.2-11 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Based on the analysis below, the impact is *less than significant*.

Wildlife corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. Fragmentation also occurs when a portion of one or more habitats is converted into another habitat, such as when woodland or scrub habitat is altered or converted into grasslands after a disturbance, such as fire, mudslide, or grading activities. Wildlife corridors mitigate the effects of fragmentation by (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thereby reducing the risk of catastrophic events (such as fire or disease) on population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

As previously discussed, the on-site grassland and trees associated with the Sand Creek riparian corridor provide potential habitat for various special-status species with potential to occur on-site. For example, CRLF may travel across the on-site grasslands while dispersing from aquatic habitats. In addition, the trees along Sand Creek provide potential nesting habitat for Swainson's hawk, golden eagle, white-tailed kite, and tricolored blackbird. Finally, the on-site grassland could potentially provide burrows for western burrowing owl and San Joaquin kit fox. However, due to the routine on-site disking activities, the project site's use as prime habitat and/or as a migratory corridor is limited. Additionally, the permanent removal of the on-site grassland as part of the proposed project would represent only an incremental decrease of the foregoing habitat, which would still be available throughout the project vicinity in sufficient

quantities to accommodate wildlife species moving through the area. As such, development of the proposed project would result in a less-than-significant impact related to the vegetation communities within the project vicinity through which wildlife species currently migrate.

Based on the above, the proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

4.2-12 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Based on the analysis below, the impact is *less than significant*.

The City of Brentwood has not adopted a tree preservation ordinance that would govern the project site. As such, the proposed project would not be subject to a tree preservation policy or ordinance, adopted for the purpose of protecting biological resources. Nevertheless, the proposed project is not anticipated to result in the loss of on-site trees. In addition, in the event that the final project design necessitates the removal of non-riparian trees, Mitigation Measure 4.2-4(c) contains requirements for replacement plantings of Swainson's hawk nest trees. Furthermore, the project would be subject to Mitigation Measure 4.2-9(a) to address potential impacts to the riparian corridor. Overall, with implementation of the mitigation measures set forth herein, the project would result in a less-than-significant impact to biological resources.

Based on the above, the proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

4.2-12 Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As discussed above, pursuant to the PSR, the project applicant, the City of Brentwood, and the East Contra Costa County Habitat Conservancy entered into a Mitigation Agreement dated August 26, 2019, which establishes that the applicant will pay an adjusted ECCC HCP/NCCP Development Fee and dedicate property upon mutually agreed terms and provisions. On December 12, 2019, the USFWS and CDFW issued a joint letter approving use of the Mitigation Agreement for the proposed project. The

adjusted fee for the project is $3,156,002.00. As fees would be paid in accordance with the Mitigation Agreement, the proposed project would be in compliance with the ECCC HCP/NCCP Development Fee.

Furthermore, as discussed under the various analyses within this chapter, proposed project would be subject to applicable ECCC HCP/NCCP Section 6.4.3 Species-Level Measures and Conservation Measures, which would ensure that all potential impacts to potentially affected species, land covers, and wetlands are reduced to a less-than-significant level. However, without compliance with all applicable provisions of the ECCC HCP/NCCP, the project would result in a significant impact.

Based on the above, without compliance with all applicable requirements set forth by the ECCC HCP/NCCP, the proposed project would conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan. Therefore, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.2-12 *Implement Mitigation Measures 4.2-3(a), 4.2-3(b), 4.2-4(a), 4.2-4(b), 4.2-4(c), 4.2-5(a), 4.2-5(b), 4.2-5(c), 4.2-6(a), 4.2-6(b), 4.2-7(a), 4.2-7(b), 4.2-8(a), 4.2-8(b), 4.2-9(c), 4.2-10(a), and 4.2-10(b).*

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, “cumulative impacts” refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

The geographic scope for the cumulative biological resources analysis generally includes buildout of the City of Brentwood General Plan planning area in accordance with adopted land uses. For further details related to the cumulative setting of the proposed project, refer to Chapter 6, Statutorily Required Sections, of this REIR.

4.2-13 Cumulative loss of habitat for special-status species. Based on the analysis below, the cumulative impact is *less than significant*.

Pursuant to the City of Brentwood General Plan EIR, the City’s General Plan planning area encompasses a 42-square-mile area that includes the City limits and nearby lands in Contra Costa County. As discussed above, areas within the City limits are largely developed or anticipated for development, with approximately 62 percent of the City limits designated for residential uses. Commercial, office, and industrial uses account for an additional 7.5 percent of the designated land within the City. However, the City still includes a variety of land covers that provide potential habitat for various plant and wildlife species, including annual grassland, pastures, and deciduous and

evergreen orchards. Brentwood is also located almost entirely within the Marsh Creek Watershed and contains numerous aquatic habitats that qualify as federally protected wetlands and jurisdictional waters.

The General Plan EIR evaluated potential impacts to all biological resource issue areas required for analysis under CEQA, which could occur as a result of development facilitated by buildout of the planning area. The General Plan EIR found that with compliance with all applicable General Plan goals, policies, and action items, all potential impacts to special-status plant and wildlife species, Sensitive Natural Communities, State- and federally protected wetlands, and migratory corridors would be reduced to a less-than-significant level.

With respect to the proposed project, this chapter provides a wide range of mitigation to minimize potential adverse effects to habitat for special-status species. For potential project impacts that could occur to Covered Species under the ECCC HCP/NCCP, mitigation measures have been set forth in this chapter to ensure that the proposed project complies with all applicable ECCC HCP/NCCP Section 6.4.3 Species-Level Measures, including, but not limited to, mitigation measures to address potential impacts to CRLF, Swainson's hawk, golden eagle, western burrowing owl, and San Joaquin kit fox. This chapter additionally sets forth mitigation measures to require compliance with applicable ECCC HCP/NCCP Conservation Measures to address potential impacts to riparian woodlands and on-site wetlands. For potential project impacts to species not covered under the ECCC HCP/NCCP, such as white-tailed kite, this chapter sets forth mitigation measures in accordance with the requirements set forth by applicable regulatory agencies. For instance, Mitigation Measure 4.2-7(a) requires that the proposed project conduct preconstruction surveys for white-tailed kite and consult with the CDFW for identified nests. Thus, the project's potential impacts to the species would be reduced to a less-than-significant level.

Finally, as discussed under Impact 4.2-12, the project applicant, the City of Brentwood, and the East Contra Costa County Habitat Conservancy entered into a Mitigation Agreement dated August 26, 2019, which establishes that the applicant will pay an adjusted ECCC HCP/NCCP Development Fee and dedicate property upon mutually agreed terms and provisions. The adjusted fee for the project is $3,156,002 and has been approved by both the USFWS and CDFW through a joint letter issued on December 12, 2019. Payment of the ECCC HCP/NCCP Development Fee would ensure the project pays a fair-share contribution to fund the East Contra Costa County Habitat Conservancy's acquisition of land, enhancement and management of habitat, and other activities that mitigate for impacts to open space habitat and Covered Species.

Overall, with incorporation of the mitigation measures set forth herein, the proposed project would be required to comply with all applicable ECCC HCP/NCCP measures and pay all applicable fees to address potential impacts to biological resources within the ECCC HCP/NCCP permit area. The mitigation measures set forth herein additionally address potential impact to biological resources biological resources not covered under the ECCC HCP/NCCP. As such, the proposed project would not result in substantial adverse effects to biological resources protected by CEQA.

Based on the above, through compliance with applicable General Plan goals, policies, and action items, as well as the mitigation measures set forth here, development facilitated by buildout of the General Plan planning area, in conjunction with the proposed project, would result in a ***less-than-significant*** cumulative impact.

Mitigation Measure(s)

None required.

4.3 Hazards and Hazardous Materials

4.3 HAZARDS AND HAZARDOUS MATERIALS

4.3.1 INTRODUCTION

The Hazards and Hazardous Materials chapter of the REIR describes existing and potentially occurring hazards and hazardous materials within the proposed project area. The chapter includes a discussion of potential impacts posed by such hazards to the environment. In addition, surrounding land uses are discussed in order to provide an assessment of whether the project could impact surrounding land uses. However, the question of whether surrounding land uses could impact the project's future residents is not a question requiring analysis under CEQA.[1]

The Hazards and Hazardous Materials chapter is primarily based on information drawn from a Phase I Environmental Site Assessment (ESA) (see Appendix F of this REIR)[2] and a Phase II ESA (see Appendix G of this REIR)[3] prepared for the proposed project by ENGEO, Inc., as well as the City of Brentwood General Plan,[4] and the General Plan EIR.[5]

4.3.2 EXISTING ENVIRONMENTAL SETTING

The following section includes a definition of hazardous materials and descriptions of the existing conditions associated with the project site related to hazards and hazardous materials.

Hazardous Materials

The term hazardous substance refers to both hazardous materials and hazardous wastes. A material is defined as hazardous if the material appears on a list of hazardous materials prepared by a federal, State, or local regulatory agency or if the material has characteristics defined as hazardous by such an agency. The California Environmental Protection Agency (Cal-EPA), California Department of Toxic Substance Control (DTSC) defines hazardous waste, as found in the California Health and Safety Code Section 25141(b), as follows:

> […] its quantity, concentration, or physical, chemical, or infectious characteristics: (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; (2) pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties, or persistence in the environment, when improperly treated, stored, transported, or disposed of, or otherwise managed.

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1 Per the *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (*CBIA*), the California Supreme Court held that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project's impact on the environment – and not the environment's impact on the project – that compels an evaluation of how future residents or users could be affected by exacerbated conditions." (*Id.* at pp. 377-378.)

2 ENGEO, Inc. *Phase I Environmental Site Assessment, Bridle Gate, Brentwood, California.* May 6, 2020.

3 ENGEO, Inc. *Phase II Environmental Site Assessment Bridle Gate, Brentwood, California.* January 27, 2021.

4 City of Brentwood. *General Plan*. July 22, 2014.

5 City of Brentwood. *Final Environmental Impact Report for the 2014 Brentwood General Plan Update*. June 2014.

The following discussion focuses on the potential Recognized Environmental Conditions (RECs) associated with the project site. A REC indicates the presence or likely presence of any hazardous substances in, on, or at a property due to any release into the environment, under conditions indicative of a release to the environment, or under conditions that pose a material threat of a future release to the environment.[6]

Additionally, the following section includes a discussion of historical RECs (HRECs) associated with the project site. A HREC indicates a past release of hazardous substances or petroleum products that has occurred in connection with a property and has been addressed to the satisfaction of the applicable regulatory authority. A HREC does not have any property use restrictions, and thus, does not have any use limitations with respect to future activities on the property. The following discussion also addresses the possibility of controlled RECs (CRECs) associated with the project site. A CREC is a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

Project Area Conditions

The project site consists of two parcels totaling approximately 126.86 acres in the City of Brentwood. The project site was historically used for dry farming of grains or hay from at least 1939 until the present. By 1939, a homesite was located at the northeastern corner of the parcel. Between 1962 and 1964, seven oil wells were drilled on the project site. By 1966, two small tanks and a production water impoundment had been built in the southeastern portion of the site to separate the oil/water mixture, store oil, and collect the condensate from the wells. A review of the 1976 aerial photograph noted a linear trace of disturbed soil along the existing Pacific Gas & Electric Company (PG&E) pipeline easement. These oil production facilities were decommissioned by 1996. Aerial photographs between 1998 and 2016 show the project site as mostly undeveloped until 2016 when some apparent grading occurred within the southern central portion of the site.

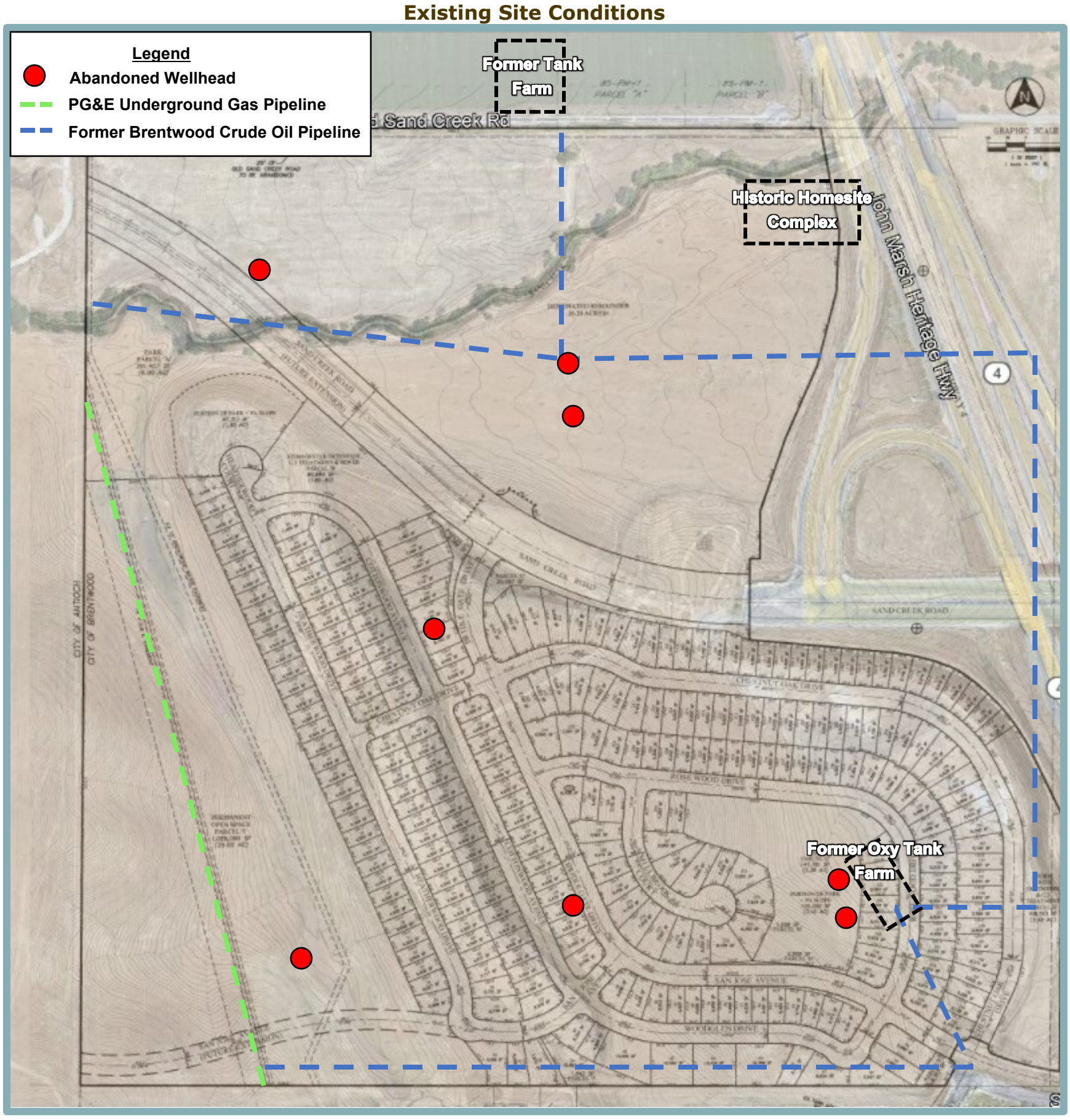
The potential hazards associated with the project area identified in the Phase I and Phase II ESAs prepared for the project site are described in further detail below. It should be noted that the 2020 Phase I ESA incorporates the findings of multiple prior Phase I ESAs and other soil sampling reports that were completed for various portions of the project site between 1992 and 2019.

On-Site Recognized Environmental Conditions

Based on the Phase I ESA prepared for the project site, which included a site reconnaissance performed on March 25, 2020, ENGEO, Inc. determined that the project site does not contain any discernable RECs, HRECs, or CRECs related to structures that could contain asbestos-containing materials or lead-based paint, polychlorinated biphenyl (PCB) containing equipment, substantial soil staining, stressed vegetation, above-ground or underground storage tanks, wastewater conveyance or storage, or domestic wells. Furthermore, although the project site was subject to past agricultural use, the Phase I ESA determined that soils were not significantly impacted by organochlorine pesticides. However, a potential HREC and REC was identified associated with the oil wells and oil storage tanks that were formerly located on-site, as well as the former Brentwood crude oil pipeline that operated within the project site. Figure 4.3-1 provides an overview of the site features described in the Phase I ESA.

[6] ASTM International. *ASTM E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* 2021.

Figure 4.3-1
Existing Site Conditions



As stated above, seven oil production wells operated on the project site from 1962 to 1996, which constitutes a HREC for the proposed project. The oil production wells were decommissioned and abandoned in accordance with the Department of Oil, Gas, and Geothermal Resources (now the California Geologic Energy Management Department [CalGEM]) regulations. Records of abandonment were reviewed on the CalGEM website as part of the Phase I ESA. The project site also contained an above-ground storage tank complex for the separation of oil, condensate and water which was decommissioned by 1996. The former Brentwood crude oil pipeline also operated within the project site. Remedial activities for the decommissioning of the well sites and tank farm included soil excavation, bioremediation, soil sampling/analysis and groundwater monitoring. Confirmation sampling and laboratory testing demonstrated successful remediation to the approved cleanup objectives set forth by the Central Valley Regional Water Quality Control Board (CVRWQCB). Closure letters for the Sullenger Tank Farm, Ward Tank Farm, and wells 3-10, 34-10, 32-10, and 38-10 were issued in 1996 through 2000 by the CVRWQCB.

Confirmation samples obtained from the bioremediated soil stockpile in the time the closure letters were issued had total petroleum hydrocarbons (TPH) concentrations up to 1,800 parts per million (ppm) which exceed current TPH residential screening levels. TPH is a term used to describe a large family of several hundred chemical compounds that originally come from crude oil. Crude oil is used to make petroleum products, which can contaminate the environment. TPH is a mixture of chemicals, but they are all made mainly from hydrogen and carbon, called hydrocarbons.

TPH compounds can result in several impacts to human health, including effects on the central nervous system, the blood, immune system, lungs, skin, and eyes.[7] Although it is likely that TPH concentrations have significantly degraded over time, the Phase I ESA determined that possible residual impacts could remain within the vicinity of the former oil wells, the former Brentwood crude oil pipeline, and the former tank farm. Therefore, the presence of such impacts are considered a REC for the project site.

As part of the recommendations of the Phase I ESA, a limited Phase II ESA was prepared by ENGEO, Inc. for the project site. Preparation of the Phase II ESA included sampling and laboratory analysis of soil and soil vapor. The samples were then submitted to a State-certified laboratory for further testing and evaluation. The soil assessment and soil vapor assessment are described in further detail below.

Soil Assessment

The Phase II ESA determined that soil samples in four locations on-site showed detectable constituents. Low to non-detectable concentrations were reported for TPH as gasoline (TPH-g), and benzene, toluene, ethylbenzene, and xylene (BTEX) and methyl tert-butyl ether (MTBE) compounds were not detected in any soil samples. Concentrations of TPH as diesel (TPH-d) ranged from non-detectable to 454 milligrams per kilogram (mg/kg) and concentrations of TPH as motor oil (TPH-mo) ranged from non-detectable to 961 mg/kg. Based on CVRWQCB policies that determine whether such compounds pose a risk to health and safety, the Phase II ESA determined that the reported concentrations are below the site-specific screening levels, and the presence of such chemicals would not require further study or mitigation.

Soil Vapor Assessment

[7] Agency for Toxic Substances and Disease Registry, U.S. Department of Health and Human Services. *ToxFAQs for Total Petroleum Hydrocarbons (TPH)*. Available at: https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=423&toxid=75. Accessed January 2023.

The analyzed soil vapor samples reported detectable concentrations of several volatile organic compounds (VOCs), including benzene, chloroform, ethylbenzene, and total xylenes. However, all such compounds were detected in concentrations below applicable residential vapor intrusion screening levels. Based on CVRWQCB policies that determine whether such chemicals pose a risk to health and safety, the Phase II ESA determined that none of the detected chemicals pose a residential health risk, and the presence of these soil vapors would not require further study or mitigation.

Nearby Recognized Environmental Conditions

In an effort to fulfill due diligence requirements, ENGEO, Inc. identified sites listed on regulatory agency databases within approximate minimum search distances from the subject property with potential of existing environmental problems. The following sites were identified in the project vicinity:

- Sand Creek Station – Heidorn Ranch Road and Sand Creek Road;
- Victoria Secret Store #1411 – 2845 Sand Creek Road;
- Shell Yard – 3052 Heidorn Ranch Road;
- The Talbots Inc. #1193 – 2565 Sand Creek Road, Suite 104;
- Lenscrafters #5612 – 2565 Sand Creek Road, Suite 124;
- Round Table Pizza – 2540 Sand Creek Road;
- Express Fashion Operations LLC – 2545 Sand Creek Road;
- Brentwood Shopping Center – 2200 San Jose Avenue;
- Ross Dress For Less #0629 – 2520 Sand Creek Road;
- Hollister Co. – 2505 Sand Creek Road;
- Bath & Body Works #2077 - Sand Creek Road, Suite H-2;
- Kelly-Moore Paint Co. Inc. – 2480 Sand Creek Road;
- Party City #444 – 2470 Sand Creek Road;
- REI #126 – 2475 South Sand Creek Road;
- Homegoods 2037 – 2460 Sand Creek Road;
- Ulta Beauty 353 – 2465 Sand Creek Road;
- Mac 695434 – 2455 Sand Creek Road, Suite 116;
- TJ Maxx 0858 – 2450 Sand Creek Road;
- Shell Purchase – Sand Creek Road;
- Cosmoprof Beauty – 2440 Sand Creek Road, Suite E-2;
- BJ's Restaurant and Brewhouse – 2365 Sand Creek Road;
- Raley's #336 – 2400 Sand Creek Road;
- Equilon Pipeline Co. LLC. – 3052 Sand Creek Road;
- Loma Vista Elementary Classroom Addition – 2110 San Jose Avenue;
- T-Mobile West Corp/BA01704A – 2110 San Jose Avenue;
- Red Robin #590 – 2385 Sand Creek Road;
- Termo Company – San Jose Avenue;
- Empire Elementary School – Empire Avenue and Amber Lane; and
- Miles-Fenell Property – 2200 Shady Willow Lane, 2301 and 2250 Empire Avenue.

With the exception of the closed leaking underground storage tank (LUST) associated with the Shell Yard, the Phase I ESA did not identify any potential risks to the project site associated with the above listed properties.

Wildfire Risks

Wildfires occur on mountains, hillsides, and grasslands. Vegetation, wind, temperature, humidity, and slope are all factors that affect how wildfires spread. The California Department of Forestry and Fire Protection (CAL FIRE) has mapped the relative wildfire risk in areas of large population by intersecting residential housing density with proximate fire threat according to three risk levels, namely Moderate, High, and Very High. Risk levels are determined based on vegetation density, adjacent wildland Fire Hazard Severity Zone (FHSZ) scores, and distance from wildland area. Each area of the map gets a score for flame length, embers and the likelihood of the area burning. According to the CAL FIRE Fire and Resource Assessment Program, the project site is not located within or near a state responsibility area (SRA)[8] or lands classified as a Very High Fire Hazard Severity Zone (VHFHSZ).[9] The nearest VHFHSZ is approximately eight miles west of the project site.

The proposed project is located within the jurisdiction of the Contra Costa County Fire Protection District (CCCFPD). In addition to Administration, Communications, Emergency Medical Services (EMS), Fire Prevention, Support Services, and Training Division, the Operations Division of the CCCFPD staffs 19 engine companies, 5 truck companies, and a Shift Training Captain/Safety Officer daily. The CCCFPD maintains 24 fully staffed stations, and 2 more stations staffed with paid-on-call Reserve Firefighters. Minimum daily staffing is 77 personnel. The 24 on-duty companies are trained and regularly cross-staff numerous specialty response units including 18 wildland fire apparatus, 3 rescue units, a trench rescue unit, a fire rescue boat, and a mobile breathing air support unit. The City of Brentwood is served primarily by Station 52, which is the nearest station to the project site and is located approximately two miles south of the site at 201 John Muir Parkway.

Fire access can be described as the means by which firefighters can enter an area to quickly mitigate a wildfire incident prior to spread to adjacent properties and critical infrastructure at risk. Primary access to the project site would be provided from Sand Creek Road to the north and San Jose Avenue to the east. State Route (SR) 4 would serve as the primary evacuation route during a wildfire event.

4.3.3 REGULATORY CONTEXT

The following discussion contains a summary of regulatory controls pertaining to hazardous substances, including federal, State, and local laws and ordinances.

Federal Regulations

Federal agencies that regulate hazardous materials include the U.S. Environmental Protection Agency (USEPA), the Occupational Safety and Health Administration (OSHA), the Department of Transportation (DOT), and the National Institute of Health (NIH). Prior to August 1992, the principal agency at the federal level regulating the generation, transport, and disposal of hazardous waste was the USEPA under the authority of the Resource Conservation and Recovery Act (RCRA). As of August 1, 1992, however, the California DTSC was authorized to implement the State's hazardous waste management program for the USEPA. The USEPA continues to regulate hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). The following federal laws and related regulations

[8] California Department of Forestry and Fire Protection. *Contra Costa County, State Responsibility Area Fire Hazard Severity Zones*. November 21, 2022.

[9] California Department of Forestry and Fire Protection. *Contra Costa County, Very High Fire Hazard Severity Zones in LRA*. January 7, 2009.

govern hazardous materials. Additionally, the Healthy Forest Restoration Act (HFRA), which pertains to wildfire prevention, is detailed below.

Occupational Safety and Health Act

Congress passed the Occupational and Safety Health Act (29 U.S.C. Section 651 et seq. [1970]) to ensure worker and workplace safety. Their goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. In order to establish standards for workplace health and safety, the Act also created the National Institute for Occupational Safety and Health (NIOSH) as the research institution for OSHA. OSHA is a division of the U.S. Department of Labor that oversees the administration of the Act and enforces standards in all 50 states. OSHA requires 40 hours of training for hazardous materials operators, as well as an annual eight-hour refresher course, which includes training regarding personal safety, hazardous materials storage and handling, and emergency response.

Comprehensive Environmental Response, Compensation, and Liability Act

The CERCLA (42 U.S.C. Section 9601 et seq. [1980]) provides a federal "Superfund" to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, the USEPA was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup. The USEPA cleans up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act. Through various enforcement tools, USEPA obtains private party cleanup through orders, consent decrees, and other small party settlements. The USEPA also recovers costs from financially viable individuals and companies once a response action has been completed. The USEPA is authorized to implement the CERCLA in all 50 states and U.S. territories.

Superfund Amendments and Reauthorization Act of 1986

The Superfund Amendments and Reauthorization Act (SARA) of 1986, (Title III; Section 305(a)) reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definitions clarifications, and technical requirements were added to the legislation, including additional enforcement authorities. In addition, Title III of SARA authorized the Emergency Planning and Community Right-to-Know Act (EPCRA). SARA, Title III provides funding for training in emergency planning, preparedness, mitigation, response, and recovery capabilities associated with hazardous chemicals. Title III of SARA addresses concerns about emergency preparedness for hazardous chemicals, and emphasizes helping communities meet their responsibilities in preparing to handle chemical emergencies and increasing public knowledge and access to information on hazardous chemicals present in their communities.

Resource Conservation and Recovery Act

The RCRA (42 U.S.C. Section 6901, et seq. [1976]) gives USEPA the authority to control hazardous waste from the “cradle-to-grave,” which includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled USEPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. The federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization and phasing out land

disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for USEPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank (UST) program. States have the authority to implement individual hazardous waste programs in lieu of the RCRA as long as the state program is as stringent as federal RCRA requirements and is approved by the USEPA.

Toxic Substances Control Act

The Toxic Substances Control Act (TSCA) of 1976 (15 U.S.C. Section 2601, et seq. [1976]) provides USEPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics and pesticides. TSCA addresses the production, importation, use, and disposal of specific chemicals including PCBs, asbestos, radon, and lead-based paint (LBP).

U.S. Department of Transportation

Transportation of hazardous materials is regulated by the DOT's Office of Hazardous Materials Safety. The office formulates, issues, and revises hazardous materials regulations under the Federal Hazardous Materials Transportation Law. The hazardous materials regulations cover hazardous materials definitions and classifications, hazard communications, shipper and carrier operations, training and security requirements, and packaging and container specifications. The hazardous materials transportation regulations are codified in 49 CFR Parts 100–185.

The hazardous materials transportation regulations require carriers transporting hazardous materials to receive required training in the handling and transportation of hazardous materials. Training requirements include pre-trip safety inspections, use of vehicle controls and equipment including emergency equipment, procedures for safe operation of the transport vehicle, training on the properties of the hazardous material being transported, and loading and unloading procedures. All drivers must possess a commercial driver's license as required by 49 CFR Part 383. Vehicles transporting hazardous materials must be properly placarded. In addition, the carrier is responsible for the safe unloading of hazardous materials at the site, and operators must follow specific procedures during unloading to minimize the potential for an accidental release of hazardous materials.

Asbestos Hazard Emergency Response Act

The 1986 Asbestos Hazard Emergency Response Act (AHERA) was signed into law as Title II of the TSCA, requiring the Asbestos Model Accreditation Plan (MAP) for accrediting individuals conducting asbestos inspection and corrective-action activities in schools and public and commercial buildings. The MAP provides guidance on the minimum training requirements for accrediting asbestos professionals such as, procedural entry, exit, sampling, and monitoring, safety hazards, and relevant federal, state, and local regulatory standards.

Lead-based Paint Regulations

Lead pollutants are regulated by several laws administered by the USEPA, including the TSCA, the Residential Lead-Based Paint Hazard Reduction Act of 1992, the Clean Air Act (CAA), the Clean Water Act (CWA), the Safe Drinking Water Act (SDWA), the RCRA, and CERCLA. The aforementioned regulations address lead in paint, dust and soil, lead in air and water, and the disposal of lead wastes. Regulations specific to LBP include, but are not limited to, the Lead Renovation Repair and Painting Program Rule, the Lead Abatement Program, the residential

Lead-based Paint Disclosure Program, and Residential Hazards of Lead in Paint, Dust and Soil. Such regulations require risk assessments, inspections, and work practices that work to minimize exposure to lead hazards.

Healthy Forest Reforestation Act

In recognition of widespread declining forest health, the HFRA was passed in 2003 to expedite the development and implementation of hazardous fuel reduction projects on federal land. A key component of the HFRA is the development of Community Wildfire Protection Plans (CWPP) as a mechanism for public input and prioritization of fuel reduction projects. A CWPP provides background information about a project area, discussion of community values at risk, community base maps, a fire risk assessment, and recommendations that identify treatment areas for reducing fuels and promoting education and awareness about wildland fires, as well as monitoring and assessment strategies. The project site is covered by the Contra Costa County CWPP, which provides a comprehensive analysis of wildfire-related hazards and risks in the wildland-urban interface (WUI) areas within the County and includes recommendations to assist stakeholders in preventing and/or reducing the threat of wildfires.[10] The project site is not located within a WUI.

State Regulations

Cal-EPA and the California State Water Resources Control Board (SWRCB) establish rules governing the use of hazardous materials and the management of hazardous waste. Within Cal-EPA, DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the State agency, for the management of hazardous materials and the generation, transport, and disposal of hazardous waste under the authority of the Hazardous Waste Control Law (HWCL). The following discussion contains the applicable State laws, as well as State environmental laws and policies relevant to wildfire.

Regional Water Quality Control Board

The Cal-EPA and the Office of Emergency Services (OES) establish regulations governing the use of hazardous materials in California. Within Cal-EPA, DTSC has primary regulatory responsibility for hazardous waste management. Enforcement of regulations can be delegated to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the HWCL. Along with the DTSC, the Regional Water Quality Control Board (RWQCB) is responsible for implementing regulations pertaining to management of soil and groundwater investigation and cleanup. The RWQCB's regulations are contained in Title 27 of the California Code of Regulations (CCR). The DTSC, RWQCB, and/or a local agency typically oversees investigation and cleanup of contaminated sites.

Department of Toxic Substances Control

The DTSC was established to protect California against threats to public health and degradation to the environment and to restore properties degraded by past environmental contamination. Through statutory mandates, DTSC cleans up existing contamination, regulates management of hazardous wastes, and prevents pollution by working with businesses to reduce hazardous waste and use of toxic materials in California. DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste in California. In addition, DTSC's Site Mitigation and Brownfields Reuse Program oversees the cleanup of State Superfund sites. State Superfund sites are additionally known as Annual Workplan sites, listed sites, or Cortese List sites. Superfund sites demonstrate evidence of a hazardous substance release or releases that could pose a

[10] Contra Costa County. *Contra Costa County Community Wildfire Protection Plan*. November 2019.

significant threat to public health and/or the environment. DTSC requires responsible parties to cleanup such sites. When responsible parties cannot be found or where they do not take proper and timely action, DTSC may use State funds to undertake the cleanup.

Cortese List

Pursuant to Government Code Section 65962.5(a), the DTSC is required to compile and update as appropriate, but at least annually, and must submit to the Secretary for Environmental Protection, a list of all of the following:

1. All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.
2. All land designated as hazardous waste property or border zone property pursuant to former Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code.
3. All information received by the DTSC pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land.
4. All sites listed pursuant to Section 25356 of the Health and Safety Code.

California Code of Regulations

Hazardous waste is characterized and defined in 22 CCR Sections 66261.20-24. Soils that meet the descriptions of the characteristics of hazardous waste defined in Sections 66261.20-24 and contain contaminants above regulatory screening levels are considered hazardous waste and must be handled and disposed of as such. The CCR includes the California Health and Safety Code.

California Health and Safety Code

The handling and storage of hazardous materials is regulated at the federal level by the USEPA under CERCLA, as amended by the SARA. Under SARA Title III, a nationwide emergency planning and response program was established that imposed reporting requirements for businesses which store, handle, or produce significant quantities of hazardous or acutely toxic substances as defined under federal laws. SARA Title III required each state to implement a comprehensive system to inform federal authorities, local agencies, and the public when a significant quantity of hazardous, acutely toxic substances are stored or handled at a facility.

Ammonia is an example of an acutely hazardous material (AHM) that is regulated by the California OES under the California Accidental Release Program (CalARP), the USEPA under the Risk Management Program (40 CFR 68), and the OSHA under the Process Safety Management Program (OSHA 1910.119). The CalARP and Risk Management Program require that all facilities that store, handle, or use AHMs above a minimum quantity, known as the threshold planning quantity, are required to develop a plan and prepare supporting documentation that summarizes the facility's potential risk to the local community and identifies safety measures to reduce potential risks to the public.

The HWCL, Chapter 6.5 of the California Health and Safety Code, is administered by the Cal-EPA to regulate hazardous wastes. While the HWCL is generally more stringent than RCRA, until the USEPA approves the California program, both the State and federal laws apply in California. The HWCL lists 791 chemicals and about 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes

management controls; establishes permit requirements for treatment, storage, disposal and transportation; and identifies some wastes that cannot be disposed of in landfills.

In California, the underground storage of hazardous materials is regulated by Chapter 6.7 of the California Health and Safety Code, pursuant to the Underground Storage of Hazardous Substances Act. Under Section 25280, the USTs used for the storage of substances hazardous to public health and safety and to the environment are stored prior to use or disposal in thousands of underground locations in the State. The USTs used for storage are potential sources of contamination of the ground and underlying aquifers, and may pose other dangers to public health and the environment. Chapter 6.7 establishes orderly procedures that will ensure that newly constructed USTs meet appropriate standards and that existing tanks be properly maintained, inspected, tested, and upgraded so that the health, property, and resources of the people of the State will be protected.

California Vehicle Code Section 31303

The California Highway Patrol (CHP) and California Department of Transportation (Caltrans) are the enforcement agencies for hazardous materials transportation regulations. Hazardous materials and waste transporters are responsible for complying with all applicable packaging, labeling, and shipping regulations. California Vehicle Code Section 31303 regulates the transport of hazardous materials.

Emergency Response to Hazardous Materials Incidents

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Response to hazardous material incidents is one part of this plan. The plan is managed by the Governor's OES, which coordinates the responses of other agencies, including Cal-EPA, CHP, California Department of Fish and Wildlife (CDFW), CVRWQCB, and the ECCFPD.

Unified Hazardous Materials Management Regulatory Program

On January 1, 1996, Cal-EPA adopted implementing regulations and implemented a unified hazardous waste and hazardous materials management regulatory program (Unified Program), to consolidate the administration of specified statutory requirements for the regulation of hazardous wastes and materials. The Unified Program is implemented at the local level by government agencies certified by the Secretary of Cal-EPA. The Certified Unified Program Agency (CUPA) is responsible for implementation of the Unified Program. CUPA is certified and responsible for oversight of the following consolidated programs: Hazardous Materials Release Response Plans and Inventories (Business Plans); California Accidental Release Program; Underground Storage Tank Program; Aboveground Petroleum Storage Act; Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs; and California Uniform Fire Code: Hazardous Materials Management Plans and Hazardous Material Inventory Statements.

State Responsibility Area

Pursuant to PRC Sections 4125-4128, the Board of Forestry and Fire Protection classifies all lands in the State for the purposes of determining areas in which the financial responsibility of preventing and suppressing wildfire is primarily the responsibility of the State. The classified lands are termed SRAs.

Fire Hazard Severity Zones

FHSZs are geographical areas designated pursuant to California PRC Sections 4201 through 4204 and classified as Very High, High, or Moderate in SRAs or as Local Agency Very High FHSZs designated pursuant to California Government Code Sections 51175 through 51189.

CCR, Title 14, Section 1280 entitles the maps of the geographical areas as "Maps of the Fire Hazard Severity Zones in the State Responsibility Area of California."

California Public Resources Code Section 4291

California PRC Section 4291 sets forth minimum fire safety standards for development in or adjoining WUI zones, such as mountainous areas and forest-covered lands. Provisions of California PRC Section 4291 for such development include, but are not necessarily limited to, the following:

- Defensible space must be maintained 100 feet from the side, front and rear of a structure, or up to the property line where the property line is less than 100 feet from the structure;
- Any tree, shrub, or other plant adjacent to or overhanging a building must be free of dead or dying wood;
- The roof of any structure must be free of leaves, needles, or other vegetative materials;
- Prior to constructing a new building, the owner shall obtain a certification from the local building official that the dwelling or structure, as proposed to be built, complies with all applicable State and local building standards; and
- Prior to final inspection approval of any building, the fire department must inspect the building and the fire suppression facilities to certify that the fire suppression improvements comply with the California Building Code and fire department service requirements.

Local Regulations

Relevant goals and policies from the City of Brentwood General Plan and various other local guidelines and regulations related to hazards and hazardous materials are discussed below.

Certified Unified Program Agency

The California Environmental Protection Agency designates specific local agencies as CUPAs, typically at the county level. In Contra Costa County, the Contra Costa County Health Services Department Hazardous Materials Division is responsible for the County's CUPA programs. Each designated CUPA is responsible for the implementation of six statewide programs within its jurisdiction. These programs include:

- Underground storage of hazardous substances (USTs);
- Hazardous Materials Business Plan (HMP) requirements;
- Hazardous Waste Generator requirements;
- California Accidental Release Prevention (Cal-ARP) program;
- Uniform Fire Code hazardous materials management plan; and
- Above-Ground Storage Tanks (Spill Prevention Control and Countermeasures Plan only).

Implementation of these programs involve:

- Permitting and inspection of regulated facilities;

- Providing educational guidance and notice of changing requirements stipulated in State or Federal laws and regulations;
- Investigations of complaints regarding spills or unauthorized releases; and
- Administrative enforcement actions levied against facilities that have violated applicable laws and regulations.

City of Brentwood General Plan

The following goals and policies from the City of Brentwood General Plan related to hazards and hazardous materials, as well as wildfire hazards, are applicable to the proposed project:

Goal SA 3 Protect the safety of life and property throughout the Brentwood community by providing high quality emergency services.

Policy SA 3-1 Continue to maintain and implement the Emergency Operations Plan.

Policy SA 3-2 Provide an effective communications system to properly respond to emergencies.

Policy SA 3-3 Keep emergency access routes free of traffic impediments.

Policy SA 3-4 Coordinate with the Contra Costa County Sheriff and the California Standardized Emergency Management System (SEMS) to ensure coordinated local and State-level responses in the event of an emergency.

Policy SA 3-5 Ensure that all areas of the city are accessible to emergency response providers.

Policy SA 3-6 Continue to promote public safety through public education programs.

Policy SA 3-7 Maintain effective mutual aid agreements for fire, police, medical response, mass care, heavy rescue, and other functions as appropriate.

Policy SA 3-8 Clearly communicate to the public the City's plans, procedures, and responsibilities in the event of a disaster or emergency.

Policy SA 3-9 Encourage residents and community leaders to participate in disaster training programs, such as the Community Emergency Response Team (CERT) program.

Goal SA 4 Protect citizens from dangers related to the movement, storage, and manufacture of hazardous materials.

Policy SA 4-1 Encourage producers and users of hazardous materials to reduce the amounts of hazardous materials generated.

Policy SA 4-2	Require hazardous waste generated within the city limits of Brentwood to be disposed of in a safe manner, consistent with all applicable local, State, and Federal laws.
Policy SA 4-3	Hazardous materials shall be stored in a safe manner, consistent with all applicable local, State, and Federal laws.
Policy SA 4-4	Coordinate with the East Contra Costa Fire Protection District to ensure that businesses in Brentwood which handle hazardous materials prepare and file a Hazardous Materials Business Plan (HMBP). The HMBP shall consist of general business information, basic information on the location, type, quantity, and health risks of hazardous materials, and emergency response and training plans.
Policy SA 4-5	Require compliance with Contra Costa County's Countywide Integrated Waste Management Plan as well as all of the Consolidated Unified Protection Agency (CUPA) program elements.

Brentwood Emergency Operations Plan

The objective of the Brentwood Emergency Operations Plan (EOP) is to provide a process for emergency management and response within the city in order to effectively to protect lives, property and the environment during disasters. The EOP is developed in accordance with the principles of the Governor's Office of Emergency Services (Cal OES) Standardized Emergency Management Systems (SEMS). The EOP identifies the city's emergency planning, organization, and response policies and procedures and incorporates a standardized structure in order to integrate the elements and functions of multiple agencies in the event of an emergency. The EOP identifies city actions in conjunction with a broad range of contingencies, spanning from relatively minor incidents to extraordinary events and large-scale disasters, from preparation through recovery. Departmental responsibilities and Standard Operating Procedures (SOPs) are identified as well as mechanisms for priority setting, interagency cooperation, and the efficient flow of resources and information.

4.3.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to hazards and hazardous materials. A discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

In accordance with CEQA Guidelines Appendix G, an impact related to hazards and hazardous materials is considered significant if the proposed project would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and/or
- Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires.

Method of Analysis

The following sections describe the methods of analysis used to determine the presence of RECs, HRECs, and CRECs in the Phase I ESA and Phase II ESA prepared for the project site by ENGEO, Inc.

Phase I ESA

ENGEO, Inc. performed a Phase I ESA for the project site. The purpose of the Phase I ESA was to evaluate whether evidence of RECs exists that may have impacted or could potentially impact the project site. The Phase I ESA was performed in general accordance with the American Society for Testing and Materials (ASTM) E1527-13 standard. The following tasks were performed as part of the Phase I ESA:

- Historical records such as aerial photographs, fire insurance maps, historical topographic maps, city directories, and other readily-available historical sources were evaluated, as available, to research the history of the site and vicinity;
- Federal, State, and local environmental databases were reviewed to identify sites that use, store, or have released hazardous materials. Regulatory files were reviewed for the identified sites, subject to the limitations of the ASTM guidance document;
- Previous environmental reports prepared for the project site were reviewed;
- A site reconnaissance of the project site was performed on foot by ENGEO, Inc. on March 25, 2020, to evaluate the site for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination; and
- Persons with knowledge of the site were interviewed.

For further details regarding the methodology and results of the Phase I ESA prepared by ENGEO, Inc. for the project site, please see Appendix F of this REIR.

Phase II ESA

Based on the results of the Phase I ESA, ENGEO, Inc. performed a Phase II ESA for the project site. The purpose of the Phase II ESA was to further evaluate areas of concern outlined in the Phase I ESA for the property. The areas of concern included the seven former oil-producing wells that operated on the project site between 1962 and 1966, an above-ground storage tank complex

that was used to store separated oil, condensate, and water that was decommissioned in 1996, and the former Brentwood crude oil pipeline, which formerly operated within the project site.

Between November 2 and November 5, 2020, ENGEO, Inc. collected 94 soil samples in the vicinity of the seven abandoned oil wells and the former tank farm. Samples were collected at two depths, five feet and ten feet below ground surface (bgs), at five locations per well and twelve locations within the former tank farm area. The soil samples were tested for the presence of TPH-g, TPH-d, TPH-mo, BTEX, and MTBE. In addition, between November 2 and November 5, 2020, ENGEO, Inc. collected soil vapor samples from locations in the vicinity of all on-site former oil wells and the former tank farm. Samples were collected from probes that were installed approximately six feet bgs. Following collection, the soil vapor samples were submitted for laboratory analysis to test for the presence of VOCs, TPH-g, and Fixed Gases. Soil sampling activities and soil vapor collection were conducted in accordance with California DTSC guidance documents.

For further details regarding the methodology and results of the Phase II ESA prepared by ENGEO, Inc. for the project site, please see Appendix G to this REIR.

Project-Specific Impacts and Mitigation Measures

The project site conditions have been compared to the standards of significance presented above in order to determine the project's impact significance. If significant impacts are identified for the construction and operational phases of the proposed project, recommended mitigation measures have been included to reduce the identified impacts to less-than-significant levels.

4.3-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Based on the analysis below, the impact is *less than significant*.

A significant hazard to the public or the environment could result from the routine transport, use, or disposal of hazardous materials. Projects that involve the routine transport, use, or disposal of hazardous materials are typically industrial in nature. The proposed project would not be industrial in nature. Operations of the proposed 286-lot single-family residential project would not include any activities that would involve the routine transport, use, or disposal of substantial amounts of hazardous materials. During operations, hazardous material use would be limited to landscaping products such as fertilizer, pesticides, as well as typical commercial and maintenance products (cleaning agents, degreasers, paints, batteries, and motor oil). Proper handling and usage of such materials in accordance with label instructions would ensure that adverse impacts to human health or the environment would not result. Thus, operations of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Construction activities associated with implementation of the proposed project would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. The project contractor is required to comply with all California Health and Safety Codes and local County ordinances regulating the handling, storage, and transportation of hazardous and toxic

materials. Pursuant to California Health and Safety Code Section 25510(a), except as provided in subdivision (b),[11] the handler or an employee, authorized representative, agent, or designee of a handler, shall, upon discovery, immediately report any release or threatened release of a hazardous material to the unified program agency (in the case of the proposed project, the Contra Costa County Health Services Department Hazardous Materials Division) in accordance with the regulations adopted pursuant to Section 25510(a). The handler or an employee, authorized representative, agent, or designee of the handler shall provide all State, city, or county fire or public health or safety personnel and emergency response personnel with access to the handler's facilities. In the case of the proposed project, the contractors are required to notify the Contra Costa County Health Services Department Hazardous Materials Division in the event of an accidental release of a hazardous material, who would then monitor the conditions and recommend appropriate remediation measures.

Based on the above, the project would not create a significant hazard to the public or the environment through the routine handling, transport, use, or disposal of hazardous materials. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

4.3-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

According to the *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (*CBIA*), the California Supreme Court held that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future users. In those specific instances, it is the impact of the project on the environment – and not the impact of the environment on the project – that compels an evaluation of how future residents or users could be affected by exacerbated conditions." (*Id.* at pp. 377-378.) Therefore, where existing hazardous conditions already occur on the project site or vicinity, the discussion below focuses on the proposed project's potential to exacerbate risks associated with such conditions.

As presented above in the Existing Environmental Setting section of this chapter, the Phase I ESA did not identify potential RECs related to structures that could contain asbestos-containing materials or lead-based paint, PCB containing equipment, substantial soil staining, stressed vegetation, above-ground or underground storage tanks, wastewater conveyance or storage, or domestic wells. Furthermore, although

[11] Subdivision (a) does not apply to a person engaged in the transportation of a hazardous material on a highway that is subject to, and in compliance with, the requirements of Sections 2453 and 23112.5 of the Vehicle Code.

the project site was subject to past agricultural use, the Phase I ESA determined that soils were not significantly impacted by organochlorine pesticides. However, a potential HREC and REC was identified associated with the oil wells and oil storage tanks that were formerly located on-site, as well as the former Brentwood crude oil pipeline that operated within the project site.

As stated above, seven oil production wells operated on the project site from 1962 to 1996. The oil production wells were decommissioned and abandoned in accordance with CalGEM regulations. Records of abandonment were reviewed on the CalGEM website as part of the Phase I ESA. The project site also contained an above-ground storage tank complex for the separation of oil, condensate and water which was decommission by 1996. The former Brentwood crude oil pipeline also operated within the project site. Remedial activities for the decommissioning of the well sites and tank farm included soil excavation, bioremediation, soil sampling/analysis and groundwater monitoring. Confirmation sampling and laboratory testing demonstrated successful remediation to the approved cleanup objectives set forth by the CVRWQCB. Closure letters for the Sullenger Tank Farm, Ward Tank Farm, and wells 3-10, 34-10, 32-10, and 38-10 were issued in 1996 through 2000 by the CVRWQCB, confirming that further investigation, remedial or removal action, or monitoring was not required on-site. However, residual impacts could remain within the vicinity of the former wells. In addition, any abandoned oil pipelines found within the areas of the project site planned for development would need to be removed during construction activities.

As described in the Existing Environmental Setting section of this chapter, the Phase II ESA performed for the project site included a soil assessment for the presence of TPH-g, TPH-d, TPH-mo, BTEX, and MTBE. The samples did not indicate any presence of BTEX or MTBE in on-site soils, and the concentrations of TPH-g, TPH-d, and TPH-mo present in the soil samples were below the site-specific screening levels. Furthermore, the soil vapor assessment performed for the project site similarly indicated that although detectable concentrations of VOCs were recorded, all present VOCs were found in concentrations below all applicable residential vapor intrusion screening levels. Therefore, chemical compounds existing on-site are not present in concentrations sufficient to comprise a REC.

However, the decommissioned and abandoned oil production wells, as well as the former Brentwood crude oil pipeline present on-site, may constitute RECs. Any abandoned oil pipelines found within areas of the project site planned for development would need to be removed during construction activities. Furthermore, Section 17.680.021 of the Brentwood Municipal Code requires development setbacks from abandoned wells. Specifically, Section 17.680.021 states the following regarding oil and gas wells:

> "Tentative maps, planned development and other development plans submitted to the City shall show the exact location of all wells drilled on the property. Development shall be designed such that the Building Official is satisfied that no structure will be built within ten feet of any well that has been properly abandoned pursuant to Division of Oil, Gas, and Geothermal Resources (DOGGR) requirements. Any lot or parcel containing an abandoned well shall be encumbered with a deed restriction specifying the exact location of such well and prohibiting any construction within said ten-foot

> area. If a final map is recorded, the encumbrance shall be recorded concurrent with the final map. The DOGGR, at its discretion, may also require that any abandoned well be uncovered, tested for leakage, require remedial work on leaking wells, and be accurately located on the final map before recordation of the map."

As such, final maps associated with the proposed project would be required to include development setbacks consistent with Section 17.680.021 in order to ensure that the abandoned oil and gas wells would not pose a risk to future development.

Conclusion

As discussed above, the former on-site oil wells and associated facilities have been decommissioned and abandoned in accordance with State regulations. The CRWQCB has confirmed that no further investigation, remedial or removal action, or monitoring is required on-site for the former oil well production areas. The Phase I ESA and Phase II ESA did not identify any other RECs that would pose a risk to future development on the project site. However, according to the City's Municipal Code, final maps prepared for the proposed project would be required to include adequate setbacks from the abandoned oil and gas wells. If the project applicant fails to comply with the applicable requirements contained within Section 17.680.021 of the City's Municipal Code, the proposed project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. Therefore, the proposed project could result in a ***significant*** impact.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.3-2(a) *Prior to recordation of any final map for the proposed project, the applicant shall submit proof to the satisfaction of the City Engineer that all planned development on-site is at least 10 feet (10') from any abandoned oil wells. Precise locations of all oil well sites shall be depicted on the final map.*

If abandoned oil/gas well infrastructure is encountered during grading, grading shall cease and the well shall be removed to the satisfaction of City prior to resuming any grading.

4.3-2(b) *Prior to the first building permit issuance for the proposed project, the applicant shall confirm, to the satisfaction of the City Engineer and the Community Development Director, the lot locations of all on-site oil wells, and shall confirm that subject oil well locations are incorporated into all subject lot deeds, and shall confirm that all proposed development on the project site is at least 10 feet from any abandoned oil well locations.*

4.3-2(c) *Prior to issuance of a grading permit, California Geologic Energy Management Department (CalGEM) shall be consulted to determine if the abandoned wells shall require modification in casing height, where*

grading is proposed proximate to these well locations. Proof of compliance shall be submitted to the City Community Development Department for review and approval.

4.3-2(d) *During construction activities, any abandoned oil pipelines within the project site shall be removed in consultation with the Contra Costa County Environmental Health Department. Proof of removal shall be provided to the City Community Development Department and City Engineer.*

4.3-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Based on the analysis below, the impact would be *less than significant*.

The nearest school to the project site is the Loma Vista Elementary School, which is located approximately 0.3-mile to the southeast of the project site. Therefore, the project site is not located within one-quarter mile of an existing or proposed school.

Furthermore, the proposed project has limited potential for the routine transport, use, or disposal of hazardous materials, as discussed above. All development on the project site would be required to comply with all applicable federal, State, and local regulations regarding the use, storage, transport, handling, and disposal of hazardous materials. Compliance with applicable federal, State, and local regulations regarding hazardous materials would ensure that development of the project site not pose a risk to the nearby elementary school. Therefore, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.3-4 Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment. Based on the analysis below, *no impact* would occur.

As discussed above, the former on-site oil wells and associated facilities have been decommissioned and abandoned in accordance with State regulations. Furthermore, according to the Phase I ESA, the project site is not currently identified on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As a result, the proposed project would not create a significant hazard to the public or the environment. Therefore, ***no impact*** would occur.

Mitigation Measure(s)
None required.

4.3-5 For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area. Based on the analysis below, *no impact* would occur.

The nearest public airport to the site is Byron Airport, which is located approximately 10 miles south of the site. In addition, a private airfield (Funny Farm Airfield) is located approximately 5.5 miles east of the project site. As such, the project site is not located within two miles of any public airports, and does not fall within an airport land use plan area. Therefore, ***no impact*** would occur related to the project being located within an airport land use plan or within two miles of a public airport or public use airport, thereby resulting in a safety hazard or excessive noise for people residing or working in the project area.

Mitigation Measure(s)
None required.

4.3-6 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Based on the analysis below, the impact would be *less than significant.*

The proposed project would include construction of new internal roadways. It should be noted that a separate City-initiated capital improvement project will extend two lanes of Sand Creek Road from the westerly existing terminus of SR 4 to Heidorn Ranch Road to the northwest. The future Sand Creek Road extension will extend along the northern boundary of the proposed single-family residential portion of the project and connect to one of the new internal roadways to provide site access. Site access would also be provided by the proposed extension of San Jose Avenue.

An internal circulation system would be provided throughout the proposed single-family residential subdivision. Each internal roadway would be designed to meet current City standards and would include sidewalks on both sides. Pedestrian access would be provided in the form of sidewalks and trails throughout the proposed development, in conformance with City standards.

The proposed project would be designed to be consistent with the City's EOP. As described above, the proposed project would serve to extend existing circulation systems in the project vicinity, which would result in improved circulation and emergency access in the area. In addition, the proposed roadway improvements are consistent with what was planned in the General Plan Circulation Element. Furthermore, during construction of the proposed project, all construction equipment

would be staged on-site so as to prevent obstruction of local and regional travel routes in the City that could be used as evacuation routes during emergency events.

Based on the above information, the proposed project, as designed, would not interfere with or impair implementation of an adopted emergency response plan or emergency evacuation plan. Therefore, the project would result in a ***less-than-significant*** impact.

Mitigation Measure(s)

None required.

4.3-7 Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires. Based on the analysis below, the impact would be *less than significant.*

Areas at risk for wildland fires are typically in or on the edge of undeveloped areas with large amounts of combustible vegetation. The project site is surrounded by existing development to the east and south, and is not located within an area where wildland fires typically occur. The existing development in the surrounding area would act as fire breaks, reducing the potential for fire to spread to the project site. According to the Cal Fire Resource Assessment Program, the project site is not located within a Very High Fire Hazard Severity Zone.[12] In addition, development of the proposed project would include the installation of fire suppression systems (e.g., fire hydrants, fire sprinklers, smoke detectors) and would be designed in accordance with the latest requirements of the California Fire Code. In accordance with State standards, the project would be required to maintain defensible space to provide a fire break that would prevent the spread of ground fires and protect on-site structures. The proposed project would also be subject to the requirements of the CCCFPD. Compliance with such would ensure that the potential hazards associated with wildland fires to the proposed buildings and structures would be reduced. Therefore, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. The cumulative setting for this analysis is buildout of the City of Brentwood General Plan planning area.

[12] California Department of Forestry and Fire Protection. *Contra Costa County Very High Fire Hazard Severity Zones in LRA.* January 7, 2009.

For more details regarding the cumulative setting, refer to Chapter 6, Statutorily Required Sections, of this REIR.

4.3-8 Cumulative exposure to potential hazards and increases in the transport, storage, and use of hazardous materials. Based on the analysis below, the cumulative impact is *less than significant*.

As discussed, project-specific impacts associated with hazardous materials related to implementation of the proposed project were found to be less than significant with implementation of mitigation. Hazardous materials and other public health and safety issues are generally site-specific and/or project-specific, and would not be significantly affected by other development within the project area. Cumulative development projects would be subject to the same federal, State, and local hazardous materials management requirements as would the proposed project, which would minimize potential risks associated with increased hazardous materials use in the community. Similarly, all future development in the project vicinity would be subject to the same fire safety requirements as the proposed project, including installation of fire suppression systems and maintenance of defensible spaces. Therefore, cumulative impacts associated with potential hazards, including wildland fires, as well as transport, storage, and use of hazardous materials associated with implementation of past, present, and reasonably foreseeable future projects, as well as the proposed project, would be ***less than significant***.

Mitigation Measure(s)

None required.

4.4 Noise

4.4 NOISE

4.4.1 INTRODUCTION

The Noise chapter of the REIR describes the existing noise environment in the project vicinity, and identifies potential impacts and mitigation measures related to noise and vibration associated with construction and operation of the proposed project. The method by which the potential impacts are analyzed is discussed, followed by the identification of potential impacts and the recommended mitigation measures designed to reduce significant noise and vibration impacts to less-than-significant levels, if required. The Noise chapter is primarily based on the Environmental Noise Assessment prepared for the proposed project by Saxelby Acoustics, LLC (see Appendix H),[1] as well as the City of Brentwood General Plan,[2] and the General Plan EIR.[3] It is noted that the Environmental Noise Assessment was updated as necessary to address the comments included in the third-party independent peer review performed by Bollard Acoustical Consultants, Inc.[4]

4.4.2 EXISTING ENVIRONMENTAL SETTING

The Existing Environmental Setting section provides background information on noise and vibration, a discussion of acoustical terminology and the effects of noise on people, existing sensitive receptors in the project vicinity, existing sources and noise levels in the project vicinity, and groundborne vibration.

Fundamentals of Acoustics

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human or animal ears. Noise is a subjective reaction to different types of sounds. Noise is typically defined as airborne sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers and, to avoid this, the decibel (dB) scale was devised. Decibels are logarithmic units that compare the wide range of sound intensities to which the human ear is sensitive.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the typical range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by filtering the frequency response of a sound level meter by means of the standardized A-weighting network. A-weighting of sound levels best reflects the human ear's reduced sensitivity to low frequencies, and the use of A-weighted sound level, expressed as dBA, has become the standard tool of environmental noise assessment. An increase of 10-dBA is generally perceived as a doubling in loudness. For

1 Saxelby Acoustics LLC. *Environmental Noise Assessment, Bridle Gate Residential.* January 26, 2023.
2 City of Brentwood. *General Plan*. July 22, 2014.
3 City of Brentwood. *Final Environmental Impact Report for the 2014 Brentwood General Plan Update*. June 2014.
4 Bollard Acoustical Consultants, Inc. *Bollard Acoustical Consultants, Inc. (BAC) Peer Review of the Bridle Gate Residential Environmental Noise Assessment prepared by Saxelby Acoustics dated February 18, 2022.* December 12, 2022.

example, a 70-dBA sound is half as loud as an 80-dBA sound, and twice as loud as a 60 dBA sound. Noise levels associated with common noise sources are provided in Table 4.4-1.

Table 4.4-1
Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	--110--	Rock Band
Jet Fly-over at 300 meters (1,000 feet)	--100--	
Gas Lawn Mower at 1 meter (3 feet)	--90--	
Diesel Truck at 15 meters (50 feet), at 80 km/hr. (50 mph)	--80--	Food Blender at 1 meter (3 feet) Garbage Disposal at 1 meter (3 feet)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 meters (100 feet)	--70--	Vacuum Cleaner at 3 meter (10 feet)
Commercial Area Heavy Traffic at 90 meters (300 feet)	--60--	Normal Speech at 1 meter (3 feet)
Quiet Urban Daytime	--50--	Large Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

Source: Saxelby Acoustics, 2023.

Community Noise Equivalent Level (CNEL), which can be used to compare the noise level of neighborhoods, is the weighted average noise level over time, presented in dB. Community noise is also commonly described in terms of the ambient noise level, which is defined as the overall noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}). The L_{eq} is the foundation of the day-night average noise descriptor, or L_{dn}, and represents a correlation with community response to noise. The L_{dn} is based on the average noise level over a 24-hours, with an additional 10 dB weighting applied to noise that occurs during nighttime hours (10:00 PM to 7:00 AM). The 10 dB nighttime penalty is applied to account for the assumption that people are more sensitive to nighttime noise exposures as compared to daytime noise exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment. The maximum sound level is denoted as L_{max}, and the noise level exceed for 50 percent of a given time period is denoted as L_{50}.

Stationary sources of noise, including construction equipment, attenuate at a rate of approximately 6.0 to 7.5 dB per doubling of distance from the source depending on ground absorption. Physical barriers located between a noise source and the noise receptor, such as berms or sound walls, increase the efficacy of noise attenuation that occurs by distance alone.

Vibration is similar to noise in that both involve a source, a transmission path, and a receiver. However, while noise is generally considered to be pressure waves transmitted through air, vibration is usually associated with transmission through the ground or structures. As with noise, vibration consists of an amplitude and frequency.

A person's perception to the vibration depends on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating. Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration levels in terms of peak particle velocities (PPV) in inches per second (in/sec). Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

Existing Sensitive Receptors

Certain land uses are more sensitive to ambient noise levels than others due to the amount of noise exposure (in terms of both exposure time and shielding from noise sources) and the type of activities typically involved. Noise sensitive land uses typically include residences, schools, child care centers, hospitals, long-term health care facilities, convalescent centers, retirement homes, and recreation areas. In the vicinity of the project site, sensitive land uses include existing single-family residential uses located south of the project site. The nearest residence is approximately 20 feet south of the project site's southern boundary.

Existing Noise Sources and Ambient Noise Levels

Per the Environmental Noise Assessment, the existing ambient noise environment within the project area is defined primarily by noise from traffic on State Route (SR) 4, located immediately east of the project site. To quantify existing ambient noise levels in the project vicinity, Saxelby Acoustics conducted continuous (24-hour) noise level measurements at two locations on the project site and short-term noise level measurements at one location. Noise measurement locations are shown in Figure 4.4-1. A summary of the noise level measurement survey results is provided in Table 4.4-2.

Table 4.4-2
Summary of Existing Background Noise Measurement Data

Site	Date	L_{dn}	Daytime L_{eq}	Daytime L_{50}	Daytime L_{max}	Nighttime L_{eq}	Nighttime L_{50}	Nighttime L_{max}
LT-1	1/6/2022	70	68	67	81	62	59	74
LT-2	1/6/2022	62	59	57	76	56	50	70
ST-1	1/5/2022	N/A	55	55	66	N/A	N/A	N/A

Notes:
- All values shown in dBA
- Daytime hours: 7:00 AM to 10:00 PM
- Nighttime Hours: 10:00 PM to 7:00 AM

Source: Saxelby Acoustics, 2023.

Existing Traffic Noise Levels

Traffic volumes for existing conditions were obtained from Kimley-Horn & Associates, Inc. The traffic noise levels at the nearest existing sensitive receptors were calculated based on the traffic volume data and the Federal Highway Administration (FHWA) Model. The modeled traffic noise levels for each roadway segment are presented in Table 4.4-3.

Figure 4.4-1
Noise Measurement Locations



Source: Saxelby Acoustics, 2023.

Table 4.4-3
Existing Traffic Noise Levels

Roadway	Segment	Exterior Noise Level (dBA L_{dn}) at Closest Sensitive Receptors
Heidorn Ranch Rd.	South of Lone Tree Way	58.1
Lone Tree Way	East of Heidorn Ranch Rd.	67.9
Sand Creek Road	East of Shady Willow Ln.	64.2
St. Regis Ave.	South of San Jose Ave.	58.1
San Jose Ave.	East of St. Regis Ave.	56.4
San Jose Ave.	West of Portofino Dr.	55.5
San Jose Ave.	East of Portofino Dr.	55.3
Balfour Rd.	East of SR-4	63.2
W. Country Club Dr.	North of Balfour Rd.	52.8
Balfour Rd.	East of W. Country Club Dr.	58.8
Balfour Rd.	West of E. Country Club Dr.	59.0
E. Country Club Dr.	North of Balfour Rd.	49.1
Balfour Rd.	East of E. Country Club Dr.	61.4
Foothill Dr.	South of Balfour Rd.	48.8
Presidio Dr.	North of W. Country Club Dr.	55.8
W. Country Club Dr.	West of Presidio Dr.	54.0
W. Country Club Dr.	East of Presidio Dr.	46.5
E. Country Club Dr.	West of Roundhill Dr.	50.3

Source: Saxelby Acoustics, 2023.

4.4.3 REGULATORY CONTEXT

In order to limit exposure to physically and/or psychologically damaging noise levels, the State of California, various county governments, and most municipalities in the State have established standards and ordinances to control noise. Applicable federal laws or regulations pertaining to noise or vibration do not exist. The following provides a general overview of the existing State and local regulations that are relevant to the proposed project.

State Regulations

The following are the State environmental laws and policies relevant to noise.

California State Building Codes

The State Building Code, Title 24, Part 2 of the State of California Code of Regulations (CCR), establishes uniform minimum noise insulation performance standards to protect persons within new buildings which house people, including hotels, motels, dormitories, apartment houses, and dwellings other than single-family dwellings.

Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB L_{dn} or CNEL in any habitable room. Title 24 also mandates that for structures containing noise-sensitive uses to be located where the L_{dn} or CNEL exceeds 60 dB, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels. If the interior allowable noise levels are met by requiring that windows be kept closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment.

Local Regulations

The following are the local environmental goals and policies relevant to noise.

City of Brentwood General Plan

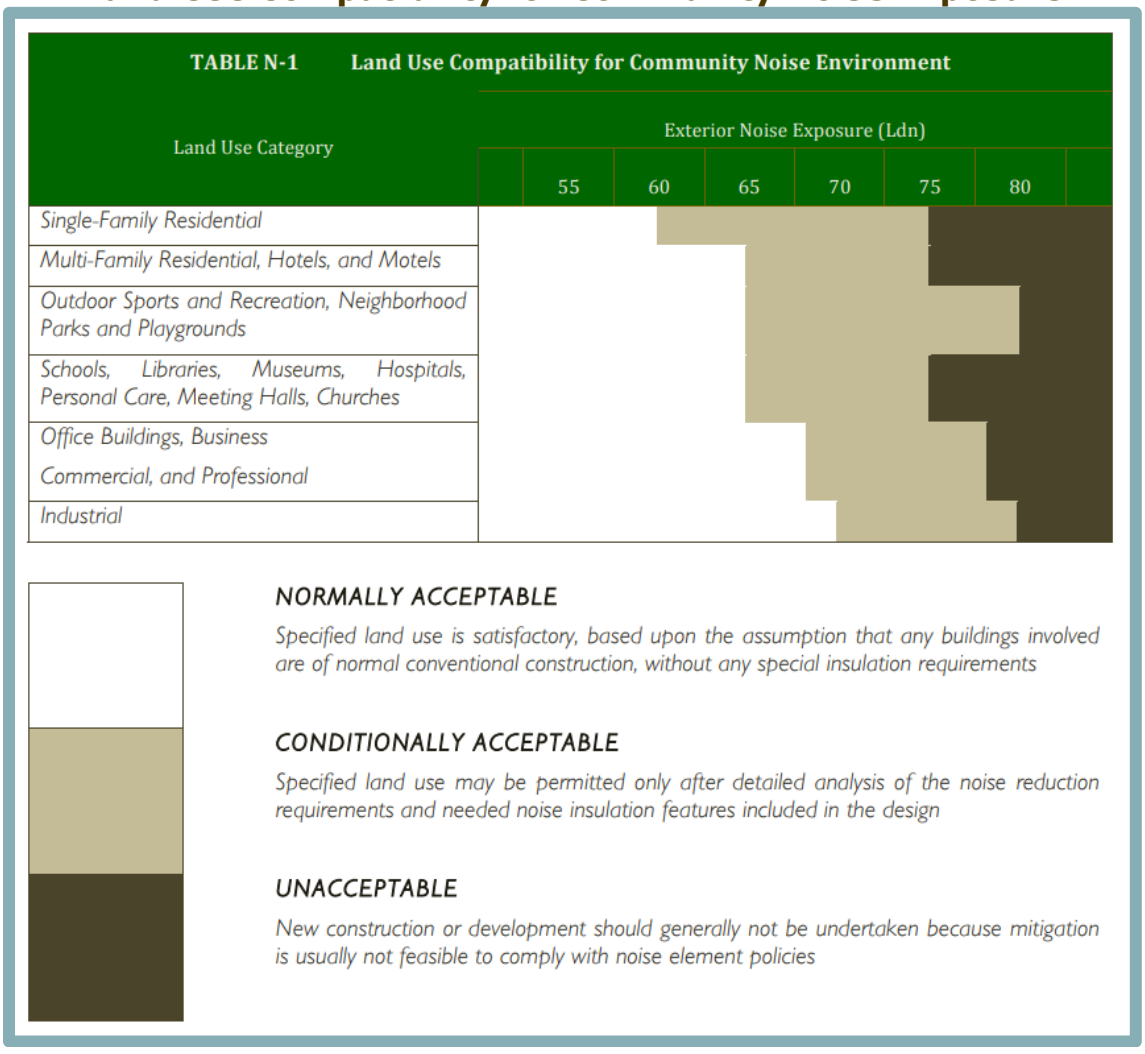
The relevant goals and policies from the City of Brentwood General Plan related to noise are presented below.

Goal N 1 Preserve a pleasant noise environment and enhance the quality of existing and future land uses by minimizing exposure to harmful and excessive noise.

Policy N 1-1: Ensure the noise compatibility of existing and future development when making land use planning decisions.

Policy N 1-2: Require development and infrastructure projects to be consistent with the Land Use Compatibility for Community Noise Environments standards indicated in Table N-1 [see Figure 4.4-2] to ensure acceptable noise levels for existing and future development.

Figure 4.4-2
Land Use Compatibility for Community Noise Exposure



Policy N 1-3: Require new development to mitigate excessive noise through best practices, including building location and orientation, building design features, placement of noise-generating equipment away from sensitive receptors, shielding of noise-generating equipment, placement of noise-tolerant features between noise sources and sensitive receptors, and use of noise-minimizing materials such as rubberized asphalt.

Policy N 1-7: For projects that are required by the California Environmental Quality Act (CEQA) to analyze noise impacts, the following criteria shall be used to determine the significance of those impacts:

Stationary and Non-Transportation Noise Sources

- A significant impact will occur if the project results in an exceedance of the noise level standards contained in this element, or the project will result in an increase in ambient noise levels by more than 3 dB, whichever is greater.

Transportation Noise Sources

- Where existing traffic noise levels are less than 60 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +5 dB L_{dn} increase in roadway noise levels will be considered significant; and
- Where existing traffic noise levels range between 60 and 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +3 dB L_{dn} increase in roadway noise levels will be considered significant; and
- Where existing traffic noise levels are greater than 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a + 1.5 dB L_{dn} increase in roadway noise levels will be considered significant.

Policy N 1-14: Ensure that new development does not result in indoor noise levels exceeding 45 dBA L_{dn} for residential uses.

Policy N 1-15: Require construction activities to comply with standard best practices (see Action N 1e).

Policy N 2-1: Recognizing that existing and future traffic noise along the State Route 4 corridor, major arterials within Brentwood, and noise from the UPRR [Union Pacific Railroad] are areas of potential land use conflict for existing and future development, reasonable use of this land will be allowed with an exterior noise exposure level not exceeding 65 dB L_{dn}. New development that includes noise-sensitive uses (i.e., residential) along the State

Route 4 corridor, major arterials, and the UPRR should incorporate appropriate noise attenuation measures in order to maintain interior noise levels of 45 dB L_{dn} or less. Application of this noise standard is intended to provide for reasonable exterior noise levels while discouraging the use of excessively high and/or unattractive sound walls.

Action N 1e: During the environmental review process, determine if proposed construction will constitute a significant impact on nearby residents and, if necessary, require mitigation measures in addition to the standard best practice controls. Suggested best practices for control of construction noise include:

1. Construction period shall be less than 12 months;
2. Noise-generating construction activities, including truck traffic coming to and from the construction site for any purpose, shall be limited to between the hours of 7:00 am and 6:00 pm on weekdays, and between 8:00 am and 5:00 pm on Saturdays. No construction shall occur on Sundays or City holidays;
3. All equipment driven by internal combustion engines shall be equipped with mufflers, which are in good condition and appropriate for the equipment;
4. The construction contractor shall utilize “quiet” models of air compressors and other stationary noise sources where technology exists;
5. At all times during project grading and construction, stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from residences;
6. Unnecessary idling of internal combustion engines shall be prohibited;
7. Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction activities, to the extent feasible;
8. The required construction-related noise mitigation plan shall also specify that haul truck deliveries are subject to the same hours specified for construction equipment;
9. Neighbors located adjacent to the construction site shall be notified of the construction schedule in writing; and
10. The construction contractor shall designate a “noise disturbance coordinator” who will be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall be responsible for determining the cause of the noise complaint (e.g., starting too early, poor muffler, etc.) and instituting reasonable measures as warranted to correct the problem. A telephone number for the disturbance

coordinator shall be conspicuously posted at the construction site.

4.4.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to noise and vibration. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, the effects of a project are evaluated to determine if they would result in a significant adverse impact on the environment. For the purposes of this REIR, an impact is considered significant if the proposed project would result in any of the following:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; or
- Generation of excessive groundborne vibration or groundborne noise levels.
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

Summary of Applicable Noise Standards

Applicable noise level standards related to noise and vibration are summarized below.

Stationary and Non-Transportation Noise Criteria

As described by General Plan Policy N 1-7, a significant impact would occur if the project results in an exceedance of the noise levels standards included in the Noise Element of the General Plan or if the project would result in an increase in ambient noise level by greater than three dB. The Noise Element of the General Plan sets forth performance standards as presented in Figure 4.4-2. Based upon Figure 4.4-2, residential uses are considered normally acceptable in ambient noise environments up to 60 dBA L_{dn}, and conditionally acceptable in noise environments up to 75 dBA L_{dn}. General Plan Policy N 2-1 establishes that future development along the SR 4 corridor, including the proposed project and the nearby sensitive receptors, is allowed an exterior noise exposure level up to 65 dB L_{dn}. As such, noise generated by typical stationary noise sources shall not exceed 65 dB L_{dn} at single-family residential land uses. A significant impact would occur if the noise level at nearby or proposed single-family residences would exceed 65 dB L_{dn}.

Transportation Noise Criteria

Generally, a project may have a significant effect on the environment if the project will substantially increase the ambient noise levels for adjoining areas or expose people to measurably severe noise levels. In practice, a noise impact may be considered significant if the project would generate noise that would conflict with local project criteria or ordinances, or substantially increase noise levels at noise sensitive land uses. The potential increase in transportation noise associated with the proposed project is a factor in determining significance.

General Plan Policy N 1-7 presents the applicable standards for assessing noise impacts associated with increases in ambient noise levels from project-generated traffic within the project vicinity. Table 4.4-4 presents the transportation noise source thresholds.

Table 4.4-4
Brentwood General Plan Policy N 1-7 – Transportation Noise

Ambient Noise Level (dB L_{dn})	Increase Required for Significant Impact
<60	+5.0 dB or more
60-65	+3.0 dB or more
>65	+1.5 dB or more

Source: City of Brentwood, 2014.

The rationale for the graduated scales above is that a test subject's reactions to increases in noise levels vary depending on the starting level of noise. Specifically, in lower ambient noise environments, such as those below 60 dB L_{dn}, a larger increase in noise levels was required to achieve a negative reaction as compared to the change in noise levels that was necessary in environments where noise levels were already elevated.

Vibration Criteria

The City of Brentwood does not have specific policies or standards pertaining to vibration levels. However, vibration levels associated with construction activities and project operations are addressed as potential vibration impacts associated with project implementation. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events.

Construction activities have the potential to result in varying degrees of temporary ground vibration depending on the specific construction equipment used and operations involved. Table 4.4-5, which was developed by California Department of Transportation (Caltrans), shows the vibration levels which would normally be required to result in damage to structures. The table also indicates that the threshold for architectural damage to structures is 0.20 in/sec PPV. Accordingly, a threshold of 0.2 in/sec PPV is considered to be a reasonable threshold for short-term construction projects.

Method of Analysis

Below are descriptions of the methodologies utilized to measure background and ambient noise and estimate future traffic noise, construction noise, and vibration associated with the project. Further modeling details and calculations are provided in Appendix H to this REIR. The results of the noise and vibration impact analyses were compared to the standards of significance discussed above in order to determine the associated level of impact.

Larson Davis Laboratories (LDL) Model 820 and 831 precision integrating sound level meters were used to conduct the ambient noise level measurement surveys on the project site. The meters were calibrated before use with B&K Model 4230 acoustical calibrator acoustical calibrator to ensure the accuracy of the measurements, and the equipment met all specifications of the American National Standards Institute requirements for Type 1 sound level meters.

Table 4.4-5
Effects of Vibration on People and Buildings

Peak Particle Velocity		Human Reaction	Effect on Buildings
mm/second	in/second		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: Transportation Related Earthborne Vibrations. Caltrans. TAV-02-01-R9601. February 20, 2002.

To predict noise levels due to traffic, Saxelby Acoustics used the FHWA Traffic Noise Model (FHWA-RD-77-108). The model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. To predict traffic noise levels in terms of L_{dn}, it is necessary to adjust the input volume to account for the day/night distribution of traffic. Accordingly, the FHWA model was used in conjunction with traffic volumes provided by Kimley-Horn & Associates to analyze the potential impact of the proposed project and project-generated traffic under Existing Plus Project conditions and future Cumulative Plus Project conditions.

Impacts of the environment on a project (as opposed to impacts of a project on the environment) are beyond the scope of required California Environmental Quality Act (CEQA) review. "[T]he purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project." (*Ballona Wetlands Land Trust v. City of Los Angeles,* (2011) 201 Cal.App.4th 455, 473 (*Ballona*).) The impacts discussed in this section of the REIR relate both to noise that may be caused by the proposed project (e.g. construction noise and operational traffic added to surrounding streets) as well as effects of existing environmental noise sources on future residents of the project (e.g. background traffic on surrounding streets). The California Supreme Court recently held that "CEQA does not generally require an agency to consider the effects of existing environmental conditions on a proposed project's future users or residents. What CEQA does mandate… is an analysis of how a project might exacerbate existing environmental hazards." (*California Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal.4th 369, 392; see also *Mission Bay Alliance v. Office of Community Investment & Infrastructure* (2016) 6 Cal.App.5th 160, 197 ["identifying the effects on the project and its users of locating the project in a particular environmental setting is neither consistent with CEQA's

legislative purpose nor required by the CEQA statutes"], quoting *Ballona*, *supra*, 201 Cal.App.4th at p. 474.) Therefore, for the purposes of the CEQA analysis, the relevant inquiry is not whether the proposed project's future residents will be exposed to pre-existing environmental noise-related hazards, but instead whether project-generated noise will exacerbate the pre-existing conditions. Nonetheless, for informational purposes, and to evaluate General Plan consistency, this chapter considers the proposed project's contribution to the existing noise environment on both existing sensitive receptors and future residents of the proposed project.

Saxelby Acoustics used the SoundPLAN noise model to calculate traffic noise levels at the proposed uses due to traffic on SR 4 and the local roadway network. Traffic noise levels include a +2 dBA adjustment for future conditions.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed project in comparison with the baseline and standards of significance identified above.

4.4-1 Generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Based on the analysis below and with implementation of mitigation, the impact is *less than significant.*

Construction activities associated with the proposed project would require the use of numerous pieces of noise-generating equipment, such as excavating machinery (e.g., backhoes, bulldozers, excavators, front loaders) and other construction equipment (e.g., compactors, scrapers, graders). Construction worker traffic and construction-related material haul trips could result in temporary noise level increases along local haul routes, depending on the number of haul trips made and types of vehicles used. The noise levels generated by construction equipment vary depending upon factors such as the type and specific model of the equipment, the operation being performed, the condition of the equipment and the prevailing wind direction. As indicated in Table 4.4-6, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dBA L_{max} at a distance of 50 feet.

It is noted that the majority of the building construction would occur at distances of 50 feet or greater from the nearest residences and, as a result, most sensitive receptors would be exposed to lower noise levels associated with construction than those presented in the table. In addition, on-site construction activities would be temporary in nature, and would be limited to normal business hours per City regulations.

However, considering the nearest noise-sensitive receptors are located approximately 20 feet south of the proposed development area, such receptors could be exposed to noise levels that are higher than those presented in Table 4.4-6. If construction activities were to occur outside of the hours established in General Plan Action N 1e, construction activity would generate noise levels that would exceed the City's applicable exterior noise level limits for residential uses along the SR 4 corridor of 65 dB.

Table 4.4-6 Construction Equipment Noise	
Type of Equipment	**Maximum Level, dBA at 50 feet**
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85
Source: Roadway Construction Noise Model User's Guide. Federal Highway Administration. FHWA-HEP-05-054. January 2006.	

As such, implementation of the project could result in the generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.4-1 *Prior to the issuance of any permits, the following criteria shall be included on grading, improvement, and construction plans, and submitted for review and approval by the City of Brentwood Community Development Director.*

- *Construction activities shall be limited to the hours set forth below:*
  - *Monday through Friday 8:00 AM to 5:00 PM;*
  - *Saturday 9:00 AM to 4:00 PM; and*
  - *Construction shall be prohibited on Sundays and City holidays. Exceptions to allow expanded construction activities shall be reviewed on a case-by-case basis as determined by the Chief Building Official and/or City Engineer.*
- *The project contractor shall ensure that the following construction noise Best Management Practices (BMPs) are met on-site during all phases of construction:*
  - *All equipment driven by internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications. Mobile or fixed "package" equipment (e.g., arc welders, air*

compressors) shall be equipped with shrouds and noise-control features that are readily available for that type of equipment.

- *All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.*
- *The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists.*
- *At all times during project grading and construction, stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from residences.*
- *Unnecessary idling of internal combustion engines shall be prohibited.*
- *Construction staging areas shall be established at locations that would create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction activities, to the extent feasible.*
- *Construction site and access road speed limits shall be established and enforced during the construction period.*
- *The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.*
- *Project-related public address or music systems shall not be audible at any adjacent receptor.*
- *Neighbors located adjacent to the construction site shall be notified of the construction schedule in writing.*
- *The construction contractor shall designate a "noise disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall be responsible for determining the cause of the noise complaint (e.g., starting too early, poor muffler, etc.) and instituting reasonable measures as warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.*

4.4-2 Generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Based on the analysis below, the impact is *less than significant.*

Residential land uses do not typically generate substantial noise during operations. Therefore, the primary noise source associated with development of the proposed

project would be noise associated with increased traffic volumes on the local roadway network. An evaluation of future traffic noise levels at existing sensitive receptors in the project vicinity, as well as at the proposed residences, is included below.

Noise Level Increases at Existing Sensitive Receptors

Traffic noise levels under Existing and Existing Plus Project conditions are summarized in Table 4.4-7.

Table 4.4-7
Existing Traffic Noise Levels and Project-Related Traffic Noise Level Increases

Roadway	Segment	Exterior Noise Level (dBA L_{dn}) at Closest Sensitive Receptors		
		Existing No Project	Existing + Project	Change
Heidorn Ranch Rd.	South of Lone Tree Way	58.1	59.0	0.9
Lone Tree Way	East of Heidorn Ranch Rd.	67.9	68.0	0.1
Sand Creek Road	East of Shady Willow Ln.	64.2	64.5	0.3
St. Regis Ave.	South of San Jose Ave.	58.1	58.5	0.4
San Jose Ave.	East of St. Regis Ave.	56.4	56.7	0.3
San Jose Ave.	West of Portofino Dr.	55.5	55.9	0.4
San Jose Ave.	East of Portofino Dr.	55.3	55.6	0.3
Balfour Rd.	East of SR-4	63.2	63.2	0.0
W. Country Club Dr.	North of Balfour Rd.	52.8	52.9	0.1
Balfour Rd.	East of W. Country Club Dr.	58.8	59.0	0.2
Balfour Rd.	West of E. Country Club Dr.	59.0	59.1	0.1
E. Country Club Dr.	North of Balfour Rd.	49.1	49.2	0.1
Balfour Rd.	East of E. Country Club Dr.	61.4	61.5	0.1
Foothill Dr.	South of Balfour Rd.	48.8	48.8	0.0
Presidio Dr.	North of W. Country Club Dr.	55.8	55.9	0.1
W. Country Club Dr.	West of Presidio Dr.	54.0	54.1	0.1
W. Country Club Dr.	East of Presidio Dr.	46.5	46.5	0.0
E. Country Club Dr.	West of Roundhill Dr.	50.3	50.3	0.0

Source: Saxelby Acoustics, 2023.

As shown in the table, the largest change in noise levels between the Existing and Existing Plus Project conditions would be 0.9 dB. All other changes in noise levels would be less than 0.9 dB, with the majority being less than 0.4 dB. Based on the City's transportation noise standards described above (see Table 4.4-4), an increase in noise less than 1.5 dB is considered to be less than significant under all ambient noise level conditions. Consequently, all project-related traffic noise increases would be below the applicable thresholds, and project traffic noise level increases at existing sensitive receptors under the Existing Plus Project conditions would be less than significant.

Noise Levels at the Proposed Residences

As noted previously, CEQA does not require an analysis of the environment's impact on the project; however, noise-related impacts to future residents of the proposed project is evaluated herein for informational purposes and to consider consistency with the policies set forth in the City's General Plan.

As shown in Figure 4.4-3, the proposed project would be exposed to exterior noise levels that would exceed the City's 65 dBA L_{dn} exterior noise standards for residential uses along the SR 4 corridor. With regard to interior noise levels, modern construction typically provides a 25 dB exterior-to-interior noise level reduction. The 25 dB level of noise reduction would not be adequate to reduce future traffic noise levels within all proposed residences to below the City's General Plan interior noise level standard of 45 dB L_{dn}. Therefore, additional interior noise control measures would be required in order to reduce traffic noise exposure.

Based on the above, exterior and interior traffic noise at the proposed residences could exceed the City's noise level standards. Although such an effect would not be considered an impact under CEQA, in order to address this concern, the City would require the following condition of approval to ensure consistency with the City's General Plan noise levels standards:

> Prior to approval of project improvement plans, the plans for the proposed project shall show that the lots located immediately adjacent to SR 4 and Sand Creek Road shall be shielded from the foregoing roadways through the use of masonry sound walls per the approval of the City Engineer. The approximate locations of these walls as shown on Figure 4.4-4 of the Draft Revised Environmental Impact Report prepared for the project. Other types of barriers may be employed but shall be reviewed by an acoustical engineer prior to being constructed. Sound wall heights are assumed to be relative to building pad elevations and may achieve the required wall height through use of earthen berm and wall combinations to achieve the total height. Additionally, second floor windows of the first row of residences along the SR 4 corridor and Sand Creek Road, shall have a minimum STC rating of 34 for windows with a view of either roadway. Alternatively, an interior noise analysis shall be prepared by a qualified acoustic engineer outlining the measures required to meet the City's 45 dBA L_{dn} interior noise standard, especially at unshielded second floor facades along the SR 4 corridor or Sand Creek Road.

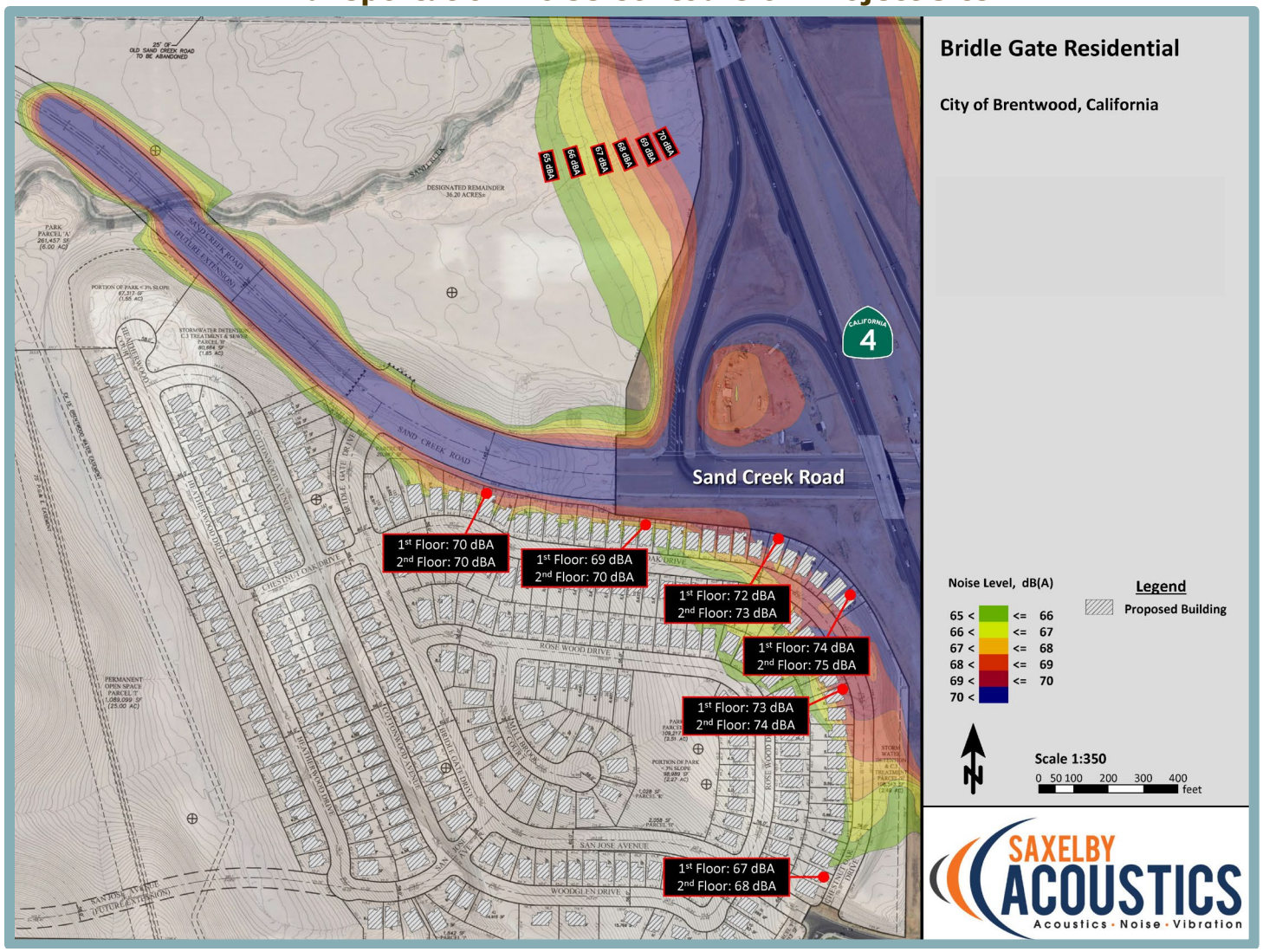
Conclusion

Existing sensitive receptors would not experience traffic-related noise levels in excess of the City's applicable noise level standards. Therefore, a ***less-than-significant*** impact would occur related to generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Mitigation Measure(s)

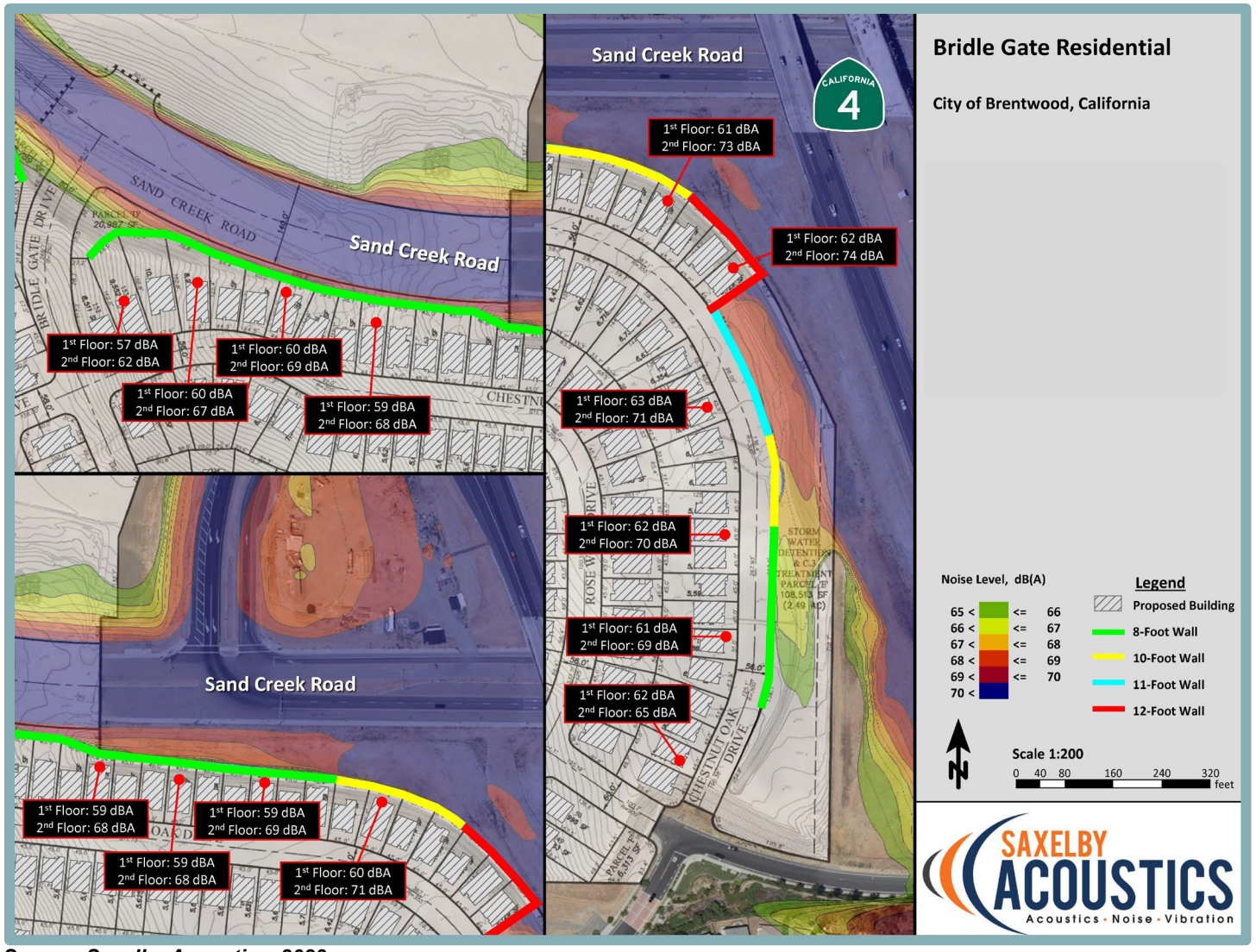
None required.

Figure 4.4-3
Transportation Noise Contours on Project Site



Source: Saxelby Acoustics, 2023.

Figure 4.4-4
Noise Barrier Locations



Source: Saxelby Acoustics, 2023.

4.4-3 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. Based on the analysis below and with implementation of mitigation, the impact is *less than significant.*

During project construction, heavy equipment would be used for grading, excavation, paving, and building construction, which would generate localized vibration in the immediate vicinity of the construction activities. Project construction would utilize typical construction equipment and would not require significant sources of vibration such as pile driving or blasting. Table 4.4-8 below shows the typical vibration levels produced by construction equipment.

Table 4.4-8
Vibration Levels for Various Construction Equipment

Type of Equipment	PPV at 25 feet (inches/second)	PPV at 50 feet (inches/second)	PPV at 100 feet (inches/second)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210 (<0.20 at 26 feet)	0.074	0.026

Source: Transit Noise and Vibration Impact Assessment Guidelines. Federal Transit Administration. May 2006.

As shown in the table, the use of vibratory compactors/rollers would result in the highest level of vibration. However, at approximately 26 feet away, vibration levels generated from the use of vibratory compactors/rollers are predicted to be below the Caltrans thresholds for damage to structures (0.2 in/sec PPV). The use of all other types of construction equipment would generate a lower level of vibration, and the majority of construction activities would occur farther than 26 feet from the nearest receptors. As a result, the average construction-generated groundborne vibration levels at the existing residences would be lower than the levels presented in the table above. Furthermore, construction activities would be temporary in nature.

However, the closest receptors to the project site, located at the end of La Sata Drive, are located closer than 26 feet from where project construction would occur. Therefore, should vibratory compactors/rollers be used within 26 feet of the receptors, vibrations associated with the project could exceed the 0.20 in/sec PPV threshold for resulting in damage to existing buildings or causing annoyance to sensitive receptors.

Based on the above, the proposed project could result in the generation of excessive groundborne vibration or groundborne noise levels associated with the use of vibratory compactors/rollers, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.4-3 *Prior to the issuance of grading permits, the following criteria shall be included on project grading plans, and submitted for review and approval by the City of Brentwood Community Development Director:*

Any compaction required less than 26 feet from the adjacent residential structures to the south of the project site shall be accomplished by using static drum rollers which use weight instead of vibrations to achieve soil compaction. As an alternative to this requirement, pre-construction crack documentation and construction vibration monitoring could be conducted for residential structures less than 26 feet from the project's property line to ensure that construction vibrations do not cause damage to any adjacent structures.

4.4-5 For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels. Based on the analysis below, *no impact* would occur.

The nearest airport to the project site is the Byron Airport, which is located approximately nine miles to the southeast. Therefore, the project site is not located within the vicinity of a private airstrip, an airport land use plan, or within two miles of a public airport, and no impact would occur related to exposing people to excessive noise levels.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. The cumulative setting with respect to potential noise impacts is buildout of the City of Brentwood General Plan planning area.

For further detail related to the cumulative setting of the proposed project, refer to Chapter 6, Statutorily Required Sections, of this REIR.

4.4-5 Generation of a substantial permanent increase in ambient noise levels associated with cumulative development of the proposed project in combination with future buildout of the General Plan. Based on the analysis below, the cumulative impact is *less than significant*.

Future development projects within the City of Brentwood, including the proposed project, would incrementally affect the future cumulative ambient noise environment. As part of the Environmental Noise Assessment, cumulative traffic noise impacts due to traffic increases on the local roadway network were evaluated for Cumulative and Cumulative Plus Project Conditions. The resulting noise levels are summarized in Table 4.4-9. As shown in Table 4.4-9, the addition of project traffic to Cumulative No Project traffic volumes would result in noise level increases of 0.4 dB or less along the study roadway segments.

Table 4.4-9
Cumulative Traffic Noise Levels and Project-Related Traffic Noise Level Increases

Roadway	Segment	Exterior Noise Level (dBA L_{dn}) at Closest Sensitive Receptors		
		Cumulative No Project	Cumulative + Project	Change
Heidorn Ranch Rd.	South of Lone Tree Way	61.6	61.6	0.0
Lone Tree Way	East of Heidorn Ranch Rd.	69.8	69.9	0.1
Sand Creek Road	East of Shady Willow Ln.	65.0	65.2	0.2
St. Regis Ave.	South of San Jose Ave.	58.1	58.4	0.3
San Jose Ave.	East of St. Regis Ave.	56.4	56.7	0.3
San Jose Ave.	West of Portofino Dr.	55.7	56.1	0.4
San Jose Ave.	East of Portofino Dr.	55.5	55.8	0.3
Balfour Rd.	East of SR-4	64.7	64.7	0.0
W. Country Club Dr.	North of Balfour Rd.	56.1	56.1	0.0
Balfour Rd.	East of W. Country Club Dr.	59.2	59.4	0.2
Balfour Rd.	West of E. Country Club Dr.	59.4	59.6	0.2
E. Country Club Dr.	North of Balfour Rd.	50.4	50.5	0.1
Balfour Rd.	East of E. Country Club Dr.	62.2	62.3	0.1
Foothill Dr.	South of Balfour Rd.	49.5	49.5	0.0
Presidio Dr.	North of W. Country Club Dr.	55.9	56.0	0.1
W. Country Club Dr.	West of Presidio Dr.	54.2	54.3	0.1
W. Country Club Dr.	East of Presidio Dr.	47.1	47.1	0.0
E. Country Club Dr.	West of Roundhill Dr.	51.0	51.0	0.0

Source: Saxelby Acoustics, 2023.

Thus, project-generated traffic would not result in a substantial increase in traffic noise levels on the local roadway network relative to the City's significance criteria established in General Plan Policy N 1-7, and as presented in Table 4.4-4. Therefore, under Cumulative Plus Project Conditions, the proposed project would not result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or

applicable standards of other agencies. Accordingly, the cumulative traffic noise impact would be ***less than significant***.

Mitigation Measure(s)

None required.

4.5 Transportation

4.5 TRANSPORTATION

4.5.1 INTRODUCTION

The Transportation chapter of the REIR discusses the existing transportation facilities within the project vicinity, focusing on pedestrian, bicycle, and transit facilities, as well as applicable policies and guidelines used to evaluate operation of such facilities. Where development of the proposed project would conflict with applicable policies or guidelines, mitigation measures are identified. The information contained within this chapter is primarily based on the Traffic Impact Study (TIS) prepared for the 2020 project by Kimley-Horn and Associates (see Appendix I)[1] and the VMT Assessment prepared for the proposed project by DKS Associates (see Appendix J),[2] as well as the City of Brentwood General Plan,[3] and the General Plan EIR.[4] It is noted that the TIS was prepared for an earlier iteration of the project; however, the TIS was reviewed by Abrams Associates Traffic Engineering, Inc., in February 2022, and was determined to remain applicable to the proposed project.[5] The VMT Assessment was updated as necessary to address the comments included in the third-party independent peer review performed by Kimley-Horn and Associates.[6]

Pursuant to the CEQA Guidelines Section 15064.3, environmental documents must use vehicle miles traveled (VMT) rather than level of service (LOS) as the metric to analyze transportation impacts. Therefore, the analysis include in this chapter focuses on VMT. The State's requirement to transition from LOS to VMT is aimed at promoting infill development, public health through active transportation, and a reduction in greenhouse gas (GHG) emissions. However, an analysis of LOS is available in the project-specific TIS, and will be used by the City in the project review process for determining consistency with General Plan goals and policies.

4.5.2 EXISTING ENVIRONMENTAL SETTING

The section below describes the physical and operational characteristics of the existing transportation system within the project vicinity, including the surrounding roadway network, pedestrian, bicycle, and transit facilities, as well as existing average VMT in the City.

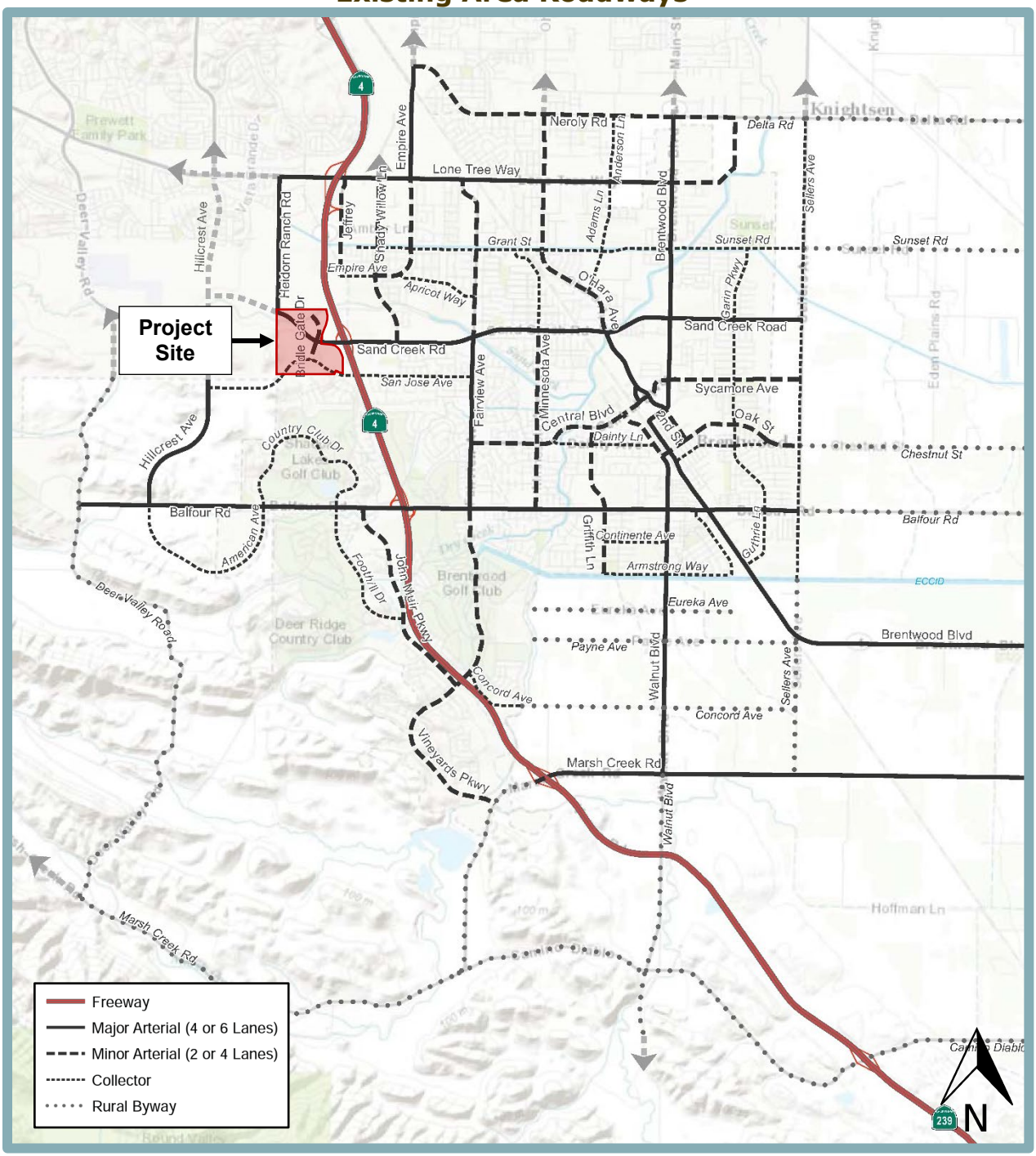
Existing Roadways

The following sections provide a summary of the major existing roadways within the project area, as presented in Figure 4.5-1.

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1 Kimley-Horn and Associates. *BRIDLE GATE Traffic Impact Study BRENTWOOD, CALIFORNIA*. April 2020.
2 DKS Associates. *VMT Assessment for Bridle Gate Residential Project.* March 2023.
3 City of Brentwood. *City of Brentwood General Plan*. Adopted July 22, 2014.
4 City of Brentwood. *Final Environmental Impact Report for the 2014 Brentwood General Plan Update*. June 2014.
5 Abrams Associates Traffic Engineering, Inc. *Review of Changes to the Trip Generation and Potential Traffic Impacts Resulting from Revision of 2020 Bridle Gate Project (VTM 9586) to include only Single-Family Homes.* February 15, 2022.
6 Kimley-Horn and Associates. *FINAL Vehicle Miles Traveled (VMT) Assessment Peer Review Bridle Gate, City of Brentwood*. March 14, 2023.

Figure 4.5-1
Existing Area Roadways



Source: City of Brentwood General Plan, 2014.

It should be noted that a separate, City-initiated capital improvement project will construct a central 56-foot roadway, including two, 20-foot travel lanes (one eastbound, one westbound) and a 16-foot median, streetlights, wet and dry utilities, and a full-width bridge across Sand Creek Road from the westerly existing terminus at State Route (SR) 4 to Heidorn Ranch Road to the northwest.

State Route 4

SR 4 provides east-west connectivity between Interstate 80 (I-80) and the Sierra Nevada mountains, connecting with I-680 and SR 160 west of the project site. SR 4 passes through Antioch and Brentwood north-south where the project site is located, continuing east towards Stockton, where SR 4 connects with I-5, SR 99, and terminates in the Sierra Nevada at SR 89. At the time the traffic study for the project was undertaken, several projects were planned that would ultimately expand SR 4 from four to eight lanes between Loveridge Road and SR 160, add a Bay Area Rapid Transit (BART) extension from Pittsburg to Antioch, improve the SR 160 and SR 4 Connector Ramps, and construct a grade-separated interchange at Balfour Road. The BART extension and the grade-separated interchange at Balfour Road have since been completed.

Within the City of Brentwood, SR 4 was formerly known as the SR 4 Bypass; however, the roadway has recently been changed to be part of SR 4. As part of the improvements associated with becoming SR 4, the road was widened to a four-lane divided freeway with interchanges at Lone Tree Way, Sand Creek Road, and Balfour Road, and at-grade signalized intersections at Marsh Creek Road and Walnut Boulevard.

Lone Tree Way

Lone Tree Way is a major arterial that has six lanes and is located at the north end of the project area. Lone Tree Way runs north-south in Antioch, turns east-west and intersects with SR 4 at the northernmost boundary of the City, and terminates east of Brentwood Boulevard. Lone Tree Way provides regional connectivity from the project area to the City of Antioch, and is fronted by, and provides direct access to, many commercial land uses. The posted speed limit is 45 miles per hour (mph).

Sand Creek Road

Sand Creek Road is a major arterial that has four travel lanes for the majority of its length and currently provides east-west connections from SR 4 to east of Garin Parkway. Sand Creek Road would be the primary connection to the project site and currently provides access to major retail centers just east of SR 4. The Sand Creek Road and SR 4 interchange project was completed in early November 2013 as part of the SR 4 development plan. Sand Creek Road is ultimately planned to be extended east of Garin Parkway to Sellers Avenue and west of SR 4 to Deer Valley Road. The posted speed limit is 45 mph between SR 4 and O'Hara Avenue, and 35 mph between O'Hara Avenue and Garin Parkway.

Balfour Road

Balfour Road is a major arterial that has four travel lanes to the Brentwood city limits and is located at the south end of the project area. West of the Brentwood city limits, Balfour Road reduces to two lanes. Balfour Road runs east-west, terminates at Deer Valley Road to the west, and becomes Fallman Boulevard east of Bixler Road, providing access from downtown Brentwood to and from unincorporated areas within Contra Costa County.

Fairview Avenue

Fairview Avenue is a north-south arterial roadway which connects from Lone Tree Way on the north end and becomes Vineyards Parkway just south of SR 4, providing access to residential neighborhoods throughout Brentwood. Fairview Avenue is a major arterial between Sand Creek Road and Balfour Road where it has four travel lanes, and a minor arterial between Sand Creek Road and Lone Tree Way, where the roadway has two travel lanes. The posted speed limit is 35 mph between Lone Tree Way and Sand Creek Road and 45 mph between Sand Creek Road and Balfour Road.

Shady Willow Lane

Shady Willow Lane has four travel lanes and is a north-south minor arterial connecting Lone Tree Way to Sand Creek Road, providing access to commercial and residential areas. The posted speed limit 35 mph between Lone Tree Way and Grant Street and 45 mph between Grant Street and Sand Creek Road.

Pedestrian, Bicycle, and Transit Facilities

The sections below describe the existing pedestrian, bicycle, and transit facilities located within the vicinity of the project site.

Pedestrian and Bicycle Facilities

Bicycle paths, lanes, and routes are typical examples of bicycle transportation facilities, which are defined by Caltrans as being in one of the following three classes:

- *Bike Paths (Class I)* – Bike paths provide a completely separate right-of-way and are designated for the exclusive use of people riding bicycles and walking with minimal cross-flow traffic. Such paths can be well situated along creeks, canals, and rail lines. Class I Bikeways can also offer opportunities not provided by the road system by serving as both recreational areas and/or desirable commuter routes.
- *Bike Lanes (Class II)* – Bike lanes provide designated street space for bicyclists, typically adjacent to the outer vehicle travel lanes. Bike lanes include special lane markings, pavement legends, and signage. Bike lanes may be enhanced with painted buffers between vehicle lanes and/or parking, and green paint at conflict zones (such as driveways or intersections).
- *Bike Routes (Class III)* – Bike routes provide enhanced mixed-traffic conditions for bicyclists through signage, striping, and/or traffic calming treatments, and to provide continuity to a bikeway network. Bike routes are typically designated along gaps between bike trails or bike lanes, or along low-volume, low-speed streets. Bicycle boulevards provide further enhancements to bike routes to encourage slow speeds and discourage non-local vehicle traffic via traffic diverters, chicanes, traffic circles, and/or speed tables. Bicycle boulevards can also feature special wayfinding signage to nearby destinations or other bikeways.

Sand Creek Road, Balfour Road, Fairview Avenue, East Country Club Drive, West Country Club Drive, and Shady Willow Lane all generally provide a striped (Class II) bike lane and sidewalk facilities. San Jose Avenue and St. Regis Avenue both have Class II bicycle lanes near the project site. Lone Tree Way lacks bicycle facilities and is designed to accommodate vehicles, but provides sidewalks on both sides of the street. Pedestrians and bicyclists are prohibited on SR 4.

The City of Brentwood Parks and Recreation Department has bicycle and pedestrian trail locations across the City, including within the project area. Asphalt trails extend along Lone Tree Way, SR 4 between San Jose Avenue and Castellina Drive, Fairview Avenue and along Old Sand Creek Road crossing Fairview Avenue. Concrete trails run along Balfour Road east of SR 4 and Sand Creek Road, crossing Fairview Avenue.

In addition, the Class I Mokelumne Coast to Crest Trail exists along the Marsh Creek Trail and the East Bay Municipal Utility District's Mokelumne Aqueduct right-of-way. Near the project area, the trail will have a connection across SR 4 north of the project area. The trail will ultimately run between the Sierra Nevada Mountains and the Oakland/Jack London Square shoreline.

Transit Facilities

Transit service in the City of Brentwood is provided by Tri-Delta Transit (TDT) (see Figure 4.5-2). TDT operates three routes (383, 385, and 395) on weekdays and one route on weekends (395) that serve the project area. Route 383 runs from the Antioch Park & Ride (Hillcrest) east to the City of Oakley, south to the City of Brentwood, crosses back west into the City of Antioch via Lone Tree Way and returns to the Park & Ride via Deer Valley Road. Route 385 runs between the Antioch Park & Ride (Hillcrest) and the Brentwood Park & Ride, using local streets including Hillcrest Avenue, Lone Tree Way, Sand Creek Road, Fairview Avenue, and Balfour Road, as well as SR 4 to approach its selected trips to American Avenue. Route 395 runs from the Antioch Park & Ride (Hillcrest) south on SR 4 to Lone Tree Way where the route heads east and then south to connect with Sand Creek Road before heading north on SR 4 back to the Antioch Park & Ride. Within the City of Brentwood, TDT provides a dial-a-ride service for the elderly and those with disabilities.

Vehicle Miles Traveled

VMT is a measure of the total amount of vehicle travel occurring on a given roadway system. VMT is a metric that accounts for the number of vehicle trips generated and the length or distance of those trips. VMT does not directly measure traffic operations; instead, VMT is a measure of transportation network use and efficiency, especially when expressed as a function of population (i.e., VMT per capita).

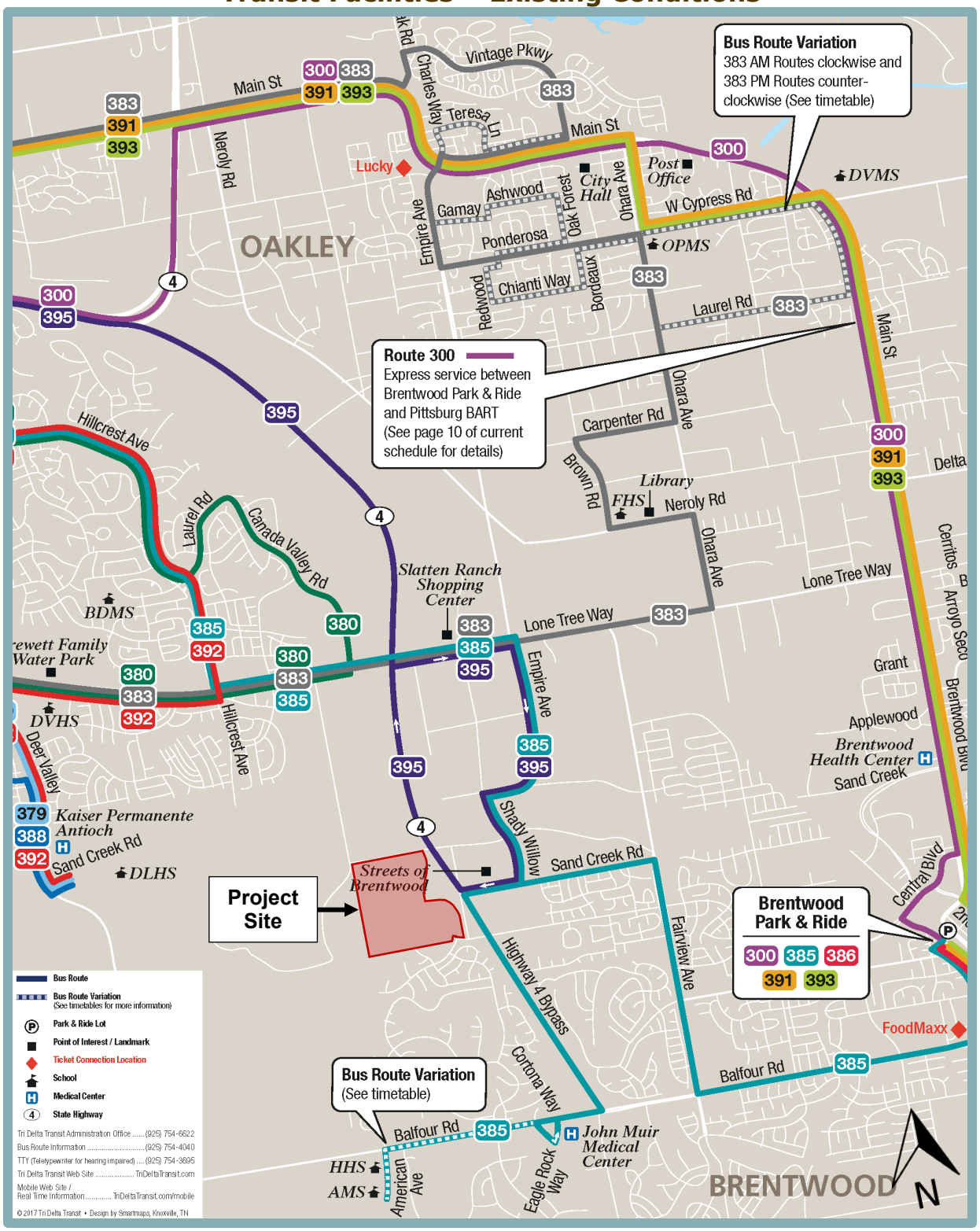
As a result of Senate Bill (SB) 743, passed in 2013 and effective as of July 1, 2020, local jurisdictions may not rely on vehicle LOS and similar measures related to delay as the basis for determining the significance of transportation impacts under CEQA. Thus, consistent with the CEQA Guidelines, VMT is the primary metric used to identify transportation impacts to roadway systems within this chapter. The established baseline (2020) average daily VMT per resident in the City of Brentwood is 29.6.[7]

4.5.3 REGULATORY CONTEXT

Existing transportation policies, laws, and regulations that would apply to the proposed project are summarized below and provide a context for the impact discussion related to the project's consistency with the applicable regulatory conditions. Federal plans, policies, regulations, or laws related to transportation and circulation are not directly applicable to the proposed project. Rather, the analysis presented herein focuses on State and local regulations, which govern the regulatory environment related to transportation and circulation at the project level.

[7] DKS Associates. *VMT Assessment for Bridlegate Residential Project* [pg. 3]. March 2023.

Figure 4.5-2
Transit Facilities – Existing Conditions



Source: Kimley-Horn & Associates, Inc., 2020.

State Regulations

The following are the regulations pertinent to the proposed project at the State level, organized chronologically. It is noted that Caltrans has jurisdiction over State highways. Therefore, Caltrans controls all construction, modification, and maintenance of State highways, and any improvements to such roadways require Caltrans approval.

Senate Bill 743

In 2013, SB 743 was passed to amend Sections 65088.1 and 65088.4 of the Government Code, amend Sections 21181, 21183, 21186, 21187, 21189.1, and 21189.3 of the Public Resources Code (PRC), to add Section 21155.4 to the PRC, to add Chapter 2.7 (commencing with Section 21099) to Division 13 of the PRC, to add and repeal Section 21168.6.6 of the PRC, and to repeal and add Section 21185 of the PRC, relating to environmental quality. In response to SB 743, the Office of Planning and Research (OPR) has updated the CEQA Guidelines to include new transportation-related evaluation metrics.

In December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update package along with an updated Technical Advisory related to Evaluating Transportation Impacts in CEQA. Full compliance with the Guidelines became effective July 2020. As a result of SB 743, and Section 15064.3 of the CEQA Guidelines, as discussed above and in further detail below, local jurisdictions may no longer rely on vehicle LOS and similar measures related to delay as the basis for determining the significance of transportation impacts under CEQA, and instead a VMT metric should be evaluated.

Technical Advisory on Evaluating Transportation Impacts in CEQA

In December of 2018, the OPR published the Technical Advisory on Evaluation Transportation Impacts in CEQA (Technical Advisory), which is a guidance document to provide advice and recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. The Technical Advisory is intended to be a resource for the public to use at their discretion, and the OPR does not enforce any part of the recommendations contained therein. The Technical Advisory includes recommendations regarding methodology, screening thresholds, and recommended thresholds per land use type.

Vehicle Miles Traveled-Focused Transportation Impact Study Guide

In May of 2020, Caltrans adopted the Vehicle Miles Traveled-Focused Transportation Impact Study Guide (TISG) to provide direction to lead agencies regarding compliance with SB 743. The TISG replaces the Caltrans' 2002 Guide for the Preparation of Traffic Impact Studies and is for use with local land use projects, not for transportation projects on the State Highway System. The objectives of the TISG are to provide:[8]

a) Guidance in determining when a Lead Agency for a land use project or plan should analyze possible impacts to the State Highway System, including its users.
b) An update to the Guide for the Preparation of Traffic Impact Studies (Caltrans, 2002) that is consistent with SB 743 and the CEQA Guidelines adopted on December 28, 2018.
c) Guidance for Caltrans land use review that supports state land use goals, state planning priorities, and GHG emission reduction goals.

[8] Caltrans. *Vehicle Miles Traveled-Focused Transportation Impact Study Guide*. May 20, 2020.

d) Statewide consistency in identifying land use projects' possible transportation impacts to the State Highway System and to identify potential non-capacity increasing mitigation measures.
e) Recommendations for early coordination during the planning phase of a land use project to reduce the time, cost, and/or frequency of preparing a Transportation Impact Study or other indicated analysis.

California Air Pollution Control Officers Association

The California Air Pollution Control Officers Association (CAPCOA) is a non-profit association of the Air Pollution Control Officers from all 35 local air quality agencies throughout California. Given the connection between air pollution emissions and the use of motor vehicles, the CAPCOA has issued recommendations that can be used by development projects to reduce project-wide VMT. One such document, the Handbook for Analyzing Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, provides methods to quantify the efficacy of certain methods in their ability to reduce VMT and, in turn, greenhouse gas emissions.

Local Regulations

Local rules and regulations applicable to the proposed project are discussed below.

Contra Costa Transportation Authority

The Contra Costa Transportation Authority (CCTA) is a public agency formed by the Contra Costa voters to manage the County's transportation sales tax program and to perform countywide transportation planning. The most relevant plans, including the Contra Costa Countywide Comprehensive Transportation Plan, the East County Action Plans, the Contra Costa Congestion Management Program, and the CCTA's Approval of the Vehicle Miles Traveled Analysis Methodology for Land Use Projects in the Growth Management Program, are discussed below.

Contra Costa Countywide Comprehensive Transportation Plan

The 2017 Countywide Comprehensive Transportation Plan, adopted September 20, 2017, is the CCTA's most recent, broadest policy and planning document.[9] The Plan identifies the criteria for analyzing transportation impacts and sets forth plans for future roadway improvements in the County. In addition, the Plan relies on collaboration with and between partners, both on the countywide and regional levels. Each of the County's five Regional Transportation Planning Committees created an Action Plan, which identifies a complete list of actions to be completed as a result of the Action Plan. The project site is located within the East County Action Plan.

East County Action Plans

As part of the Action Plan process, each Regional Transportation Planning Committee identified projects and programs in the form of actions to be included in the Action Plan for the Routes of Regional Significance. Each Action Plan states the vision, goals, and policies; designates Routes of Regional Significance; sets objectives for such routes; and presents specific actions to achieve established objectives. The actions are listed on both a route-by-route and a regional scale, and aim to support the transportation objectives as specified by each Regional Transportation Planning Committee. The latest East County Action Plan for Routes of Regional Significance was adopted September 2017.

[9] Contra Costa County Transportation Authority. *2017 Countywide Comprehensive Transportation Plan.* September 20, 2017.

Contra Costa Congestion Management Program

The CCTA is responsible for preparing and adopting a Congestion Management Program (CMP) and updating the Program every other year. The CCTA adopted the County's first CMP in October 1991. The 2021 Contra Costa CMP Update represents the 15th biennial update. The 2021 update, which was prepared with help from and consultation with representatives of local, regional and State agencies, transit operators and the public, responds to changes in regional transportation planning, projects, and programs made since 2019. The 2021 CMP focuses primarily on bringing the required seven-year CIP up to date, while also responding to primarily technical changes and corrections from the 2019 CMP.

Contra Costa Growth Management Program Implementation Guide

The overall goal of the CCTA Growth Management Program is to achieve a cooperative process for growth management on a countywide basis, while maintaining local authority over land use decisions and the establishment of performance standards. Methods of achieving such goals are outlined in the Growth Management Program Implementation Guide. On July 15, 2020, the CCTA adopted criteria, standards, and thresholds for the assessment of VMT in the Approval of the Vehicle Miles Traveled Analysis Methodology for Land Use Projects in the Growth Management Program Implementation Guide. The methods and thresholds adopted by CCTA follow the guidance and recommendations of OPR pertaining to the implementation of SB 743. Current CCTA guidance related to VMT is as follows:

- Residential Projects should use the home-based VMT per capita metric to evaluate project generated VMT. The project generated home-based VMT per resident constitutes a significant impact if it is higher than 85 percent of the home-based VMT per resident in the subject municipality or unincorporated Authority subregion (for areas outside of municipalities) or 85 percent of the existing county-wide average home-based VMT per resident, whichever is less stringent.
- Employment-Generating Projects should use the home-work VMT per worker metric for their project generated VMT estimates. The project generated home-work VMT per worker constitutes a significant impact if it is higher than 85 percent of the home-work VMT per worker in the subject municipality or unincorporated Authority subregion (for areas outside of municipalities) or 85 percent of the existing Bay Area region-wide average home-work VMT per worker, whichever is less stringent.
- Other Uses and Projects need to be analyzed using a methodology developed by the Lead Agency specifically for the project, taking into account the specific methodologies and thresholds identified in Approval of the Vehicle Miles Traveled Analysis Methodology for Land Use Projects in the Growth Management Program.
- Mixed-Use Projects may be analyzed using a combination of techniques.

In addition, CCTA guidance provides the following criteria to screen projects out of conducting a project-level VMT analysis:

- CEQA Exemption – Any project that is exempt from CEQA is not required to conduct a VMT analysis.
- Small projects – Small projects can be presumed to cause a less-than-significant VMT impact. Small projects are defined as having 10,000 sf or less of non-residential space or 20 residential units or less, or otherwise generating less than 836 VMT per day.

- Local-Serving Uses – Projects that consist of Local-Serving Uses can generally be presumed to have a less-than-significant impact absent substantial evidence to the contrary, because local serving projects would primarily draw users and customers from a relatively small geographic area that will lead to short-distance trips and trips that are linked to other destinations.
- Projects Located in Transit Priority Areas (TPAs) – Projects located within a TPA can be presumed to have a less-than-significant impact absent substantial evidence to the contrary.
- Projects located in Low VMT Areas – residential and employment-generating projects located within a low VMT-generating area can be presumed to have a less-than-significant impact absent substantial evidence to the contrary. A Low VMT area is defined as follows:
    - For housing projects: Cities, towns and unincorporated portions within Contra Costa that have existing home-based VMT per capita that is 85 percent or less of the existing county-wide average.
    - For employment-generating projects: Cities, towns, and unincorporated portions within Contra Costa that have existing home-work VMT per worker that is 85 percent or less of the existing regional average.

Regional Transportation Development Impact Mitigation

The East Contra Costa Regional Fee & Financing Authority (ECCRFA) establishes a funding source for capital improvements projects in Eastern Contra Costa County. The fee was designed to collect funds for regional transportation improvements, such as the widening of Balfour Road and SR 4, and the planned extension of Sand Creek Road.

City of Brentwood General Plan

The following goals and policies from the City of Brentwood General Plan are applicable to the proposed project:

Circulation Goal 1: Provide a transportation system that facilitates the efficient movement of people and goods within and through the City of Brentwood and promotes the use of alternatives to the single occupant vehicle.

Policy CIR 1-2: Ensure that the City's circulation network is a well-connected system of streets, roads, highways, sidewalks, and paths that effectively accommodates vehicular and non-vehicular traffic in a manner that considers the context of surrounding land uses and the needs of all roadway users.

Policy CIR 1-12: Maintain and improve critical transportation facilities for emergency vehicle access and emergency evacuation needs.

Circulation Goal 2: Proactively support and encourage travel by non-automobile modes by maintaining and expanding safe and efficient pedestrian, bicycle, equestrian, and transit networks.

Policy CIR 2-1: Establish and maintain a system of interconnected bicycle, pedestrian, and equestrian facilities that facilitate commuter and recreational travel, and that are consistent with the City's parks, trails, and recreation goals and policies in this General Plan and the Contra Costa County Countywide Bicycle and Pedestrian Plan.

Policy CIR 2-2: Routinely incorporate sidewalks and enhanced pedestrian crossing facilities as part of new street construction, and incorporate bicycle facilities on new collector and arterial streets (including bicycle lanes where appropriate, bicycle route and destination signs, and bicycle detection at signals).

Policy CIR 2-3: Require development projects to construct on-site sidewalks, paths, and trails in a manner that is consistent with the City's parks, trails, and recreation goals and policies in this General Plan and the Contra Costa County Countywide Bicycle and Pedestrian Plan, and as dictated by the location of transit stops and common pedestrian destinations.

Policy CIR 2-8: Provide secure bicycle racks in places such as the Downtown, at commercial areas, park and ride transit facilities, schools, multiple unit residential developments, and other locations where there is a concentration of residents, visitors, students, or employees.

Policy CIR 2-9: Where possible, integrate multi-use path facilities into utility corridor rights-of-way.

Circulation Goal 3: Coordinate circulation facilities with land use and development patterns to create an environment that encourages walking, bicycling, and transit use.

Policy CIR 3-1: Recognize the role of streets not only as vehicle routes but also as parts of a system of public spaces, with quality landscaping, street trees, and bicycle and pedestrian paths.

Policy CIR 3-3: Design developments to include features that encourage walking, bicycling, and transit use. Design features shall include bus turnouts, transit shelters and benches, and pedestrian access points between subdivisions and between adjacent related land uses.

Policy CIR 3-4: Provide an interconnected street network that provides multiple points of access, discouraging cut-through traffic while maintaining neighborhood connectivity.



Policy CIR 3-9: Design intersections to provide adequate and safe access for all users including pedestrians, bicyclists, and motorists of all ages and abilities.

Policy CIR 3-10: Require new development to include effective linkages to the surrounding circulation system for all modes of travel, to the extent feasible.

Circulation Goal 4: Ensure that a combination of managed growth and adequate funding mechanisms are in place to complete future improvements on the local and regional circulation networks.

Policy CIR 4-2: Require new development to contribute its proportional cost of circulation improvements necessary to address cumulative transportation impacts on roadways throughout the City, as well as the bicycle and pedestrian network.

Community Facilities Goal: Ensure the provision of high quality and responsive fire protection services.

Policy CSF 4-2: Encourage, and work cooperatively with, the East Contra Costa Fire Protection District and providers of emergency medical services to maintain a three to five minute response time for all emergency response calls within Brentwood.

4.5.4 IMPACTS AND MITIGATION MEASURES

This section describes the standards of significance and methodology utilized to analyze and determine the proposed project's potential impacts related to transportation and circulation.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, the proposed project would be considered to result in a significant adverse impact on the environment in relation to transportation and circulation if the project would result in any of the following:

- Conflict with a program, plan, ordinance, or policy, addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- Substantially increase hazards to vehicle safety due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- Result in inadequate emergency access.

Specific application of the general thresholds is provided in the following section, based on guidance from the City of Brentwood and the CCTA.

Vehicle Miles Traveled

According to Section 15064.3(b)(3) of the CEQA Guidelines, a Lead Agency has discretion to choose the most appropriate methodology to evaluate a project's VMT, including whether to

express the change in absolute terms, per capita, per household or in any other measure. Thus, a Lead Agency may analyze a project's VMT qualitatively based on the availability of transit, proximity to destinations, etc.

In November 2017, OPR released the proposed text for Section 15064.3, Determining the Significance of Transportation Impacts, which summarized the criteria for analyzing transportation impacts for land use projects and transportation projects and directs lead agencies to "choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure." OPR recommends that for most instances a per service population threshold should be adopted and that a fifteen percent reduction below that of existing development would be a reasonable threshold.

In compliance with SB 743 and consistent with OPR guidance, the CCTA has established VMT analysis methodologies in the CCTA Growth Management Program Implementation Guide.[10] This document specifies the methodology, screening criteria, and thresholds of significance that member jurisdictions should follow to remain in compliance with the GMP. As noted therein, the recommended Target VMT Reduction of 85 percent of baseline levels, is largely based on the OPR's Technical Advisory.

As the City of Brentwood has not yet formally adopted VMT criteria, standards, or thresholds at the time this report was prepared, this assessment follows the current OPR and CCTA guidance related to VMT, and the applicable threshold of significance is 85 percent of the existing citywide average VMT per resident. Given that the existing City-wide VMT per resident is 29.6, the applicable threshold herein is 25.2 VMT per resident (29.6 x 0.85 = 25.16).

Method of Analysis

The analysis methodology used to determine the proposed project trip generation and VMT is discussed below.

Project Trip Generation

The trip generation for the proposed project was calculated by Abrams Associates Traffic Engineers, Inc. by using trip generation rates published in the 11th Edition Trip Generation Manual prepared by the Institute of Transportation Engineers. The applicable rate for the proposed 286 proposed single-family residential units is category 210 (Single Family Residential). Table 4.5-1 summarizes the estimated trip generation for the proposed project. As presented therein, the proposed project would result in a total of 2,697 daily trips with 200 trips expected in the AM peak hour and 269 trips generated during the PM peak hour.

Table 4.5-1
Project Trip Generation

Land Use	ITE Code	Size	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
ITE Single Family Home Trip Rates per Unit	210	--	9.43	0.18	0.52	0.70	0.59	0.35	0.94
Proposed Project Trip Generation	--	286 units	2,697	52	148	200	170	99	269

Source: Abrams Associates, 2022.

[10] Contra Costa Transportation Authority. *Implementation Guide*. February 17, 2021.

Vehicle Miles Traveled Assessment

DKS conducted an analysis of VMT for the proposed project in the year 2020, as well as an analysis of VMT in the year 2040 under cumulative conditions. The methodology used for each analysis is discussed further below.

Project Analysis

To conduct the VMT assessment, DKS conducted analysis using the 2020 version of the CCTA travel demand model, which incorporates the "P2017" land use forecasts. Model files previously used for analysis of other projects in Brentwood were reviewed to ensure consistency. Although the project's proposed residential units are in the model's land use file, the model does not forecast activation of this land use until many years in the future. To conduct the project VMT analysis, DKS modified the master land use file to reflect project land use for a 2020 scenario.

Cumulative Analysis

The cumulative analysis was conducted for a 2040 horizon year under both With Project and No Project scenarios. Because the CCTA travel demand model land use input file contained sufficient forecasted quantities of residential development, the standard inputs were used for the With Project scenario. The traffic analysis zone (TAZ) in which the project site is located is forecasted to remain predominantly residential, with only 24 primarily retail jobs by 2040. It is noted that both cumulative scenarios assumed the extension of Sand Creek Road west from the project site.

The No Project scenario was developed by subtracting 286 single-family residential units from the given total and proportionately adjusting the total population, household population, and employed residents variables. The Project and No Project VMT per capita was tabulated using the CCTA-provided scripts and summary spreadsheet. In addition, the sum of study area VMT was tabulated for both scenarios, consistent with the CCTA Implementation Guide.

Project-Specific Impacts and Mitigation Measures

The proposed project impacts on the transportation system are evaluated in this section based on the thresholds of significance and methodology described above. Each impact is followed by recommended mitigation to reduce the identified impacts, if needed.

4.5-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system during construction activities. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Construction activities associated with the proposed project would include use of construction equipment, including on-site earth-moving vehicles, bulldozers, and other heavy machinery, as well as building materials delivery, and construction worker commutes. The transport of heavy construction equipment to the site, haul truck trips, and construction worker commutes could affect the local roadway network.

Construction workers typically arrive before the morning peak hour and leave before the evening peak hours of the traditional commute time periods. Deliveries of building material (lumber, concrete, asphalt, etc.) would also normally occur outside of the traditional commute time periods. In addition, any truck traffic to the site would follow designated truck routes, and project construction would likely stage any large vehicles

(i.e., earth- moving equipment, cranes, etc.) on the site prior to beginning site work and remove such vehicles at project completion. However, detailed information related to the construction routes and equipment staging, or a construction management plan, is not available. As a result, construction activities could include disruptions to the transportation network near the project site.

Based on the above, without proper planning of construction activities, construction traffic and potential street closures could interfere with existing roadway operations, including pedestrian, bicycle, and transit facilities, during the construction phase. Therefore, the proposed project has the potential to conflict with a program, plan, ordinance, or policy addressing the circulation system during construction activities, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.5-1 *Prior to grading permit issuance, the project applicant shall prepare a Construction Traffic Management Plan for review and approval by the City Engineer. The plan shall include the following:*

- *A project staging plan to maximize on-site storage of materials and equipment;*
- *A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak hours; lane closure proceedings; signs, cones and other warning devices for drivers; and designation of construction access routes;*
- *Provisions for maintaining adequate emergency access to the project site;*
- *Permitted construction hours, per City of Brentwood standards;*
- *Designated locations for construction staging areas;*
- *Identification of parking areas for construction employees, site visitors, and inspectors, including on-site locations; and*
- *Provisions for street sweeping to remove construction-related debris on public streets.*

4.5-2 Conflict with a program, plan, ordinance or policy addressing the circulation system during operations. Based on the analysis below, the impact is *less than significant*.

As discussed throughout this chapter, LOS is no longer the applicable metric when evaluating CEQA transportation impacts of a project. The evaluation of VMT is discussed in Impact 4.5-3 of this chapter. The following discussion focuses on whether the proposed project would result in impacts to existing or planned pedestrian facilities, bicycle facilities, or transit facilities and services within the project area.

Pedestrian and Bicycle Facilities

The proposed project would include construction of new internal roadways and the extension of San Jose Avenue to the west. Each internal roadway would be designed to meet current City standards and would include sidewalks on both sides. Pedestrian access would be provided in the form of sidewalks and trails throughout the proposed development, in conformance with City standards. Furthermore, neighborhood roadways within the project site would have relatively low traffic volumes and, thus, would be capable of accommodating both bicycle and vehicle traffic.

In addition, as part of the proposed project, sidewalks and Class II bicycle lanes would be constructed along the entire project frontage along Sand Creek Road between the new SR 4 interchange and the westerly boundary of the project site, connecting with the existing sidewalks and Class II bicycle lanes on Sand Creek Road. Similarly, sidewalks and Class II bicycle lanes would be constructed along San Jose Avenue and St. Regis Avenue to connect with existing facilities. Crosswalks would be provided at all project intersections.

The City's Parks, Trails & Recreation Master Plan Update identifies two future north-south local trail connections through the project site.[11] The westernmost trail is planned to extend from the Black Gold Trail to the south of the site, connecting to Old Sand Creek Road to the north of the site. The second, easternmost trail is planned to extend from the existing terminus of San Jose Avenue to the south of the site, also connecting to Old Sand Creek Road. While the proposed site layout would not be compatible with the trail alignments envisioned in the Master Plan, as noted above, the project would include bicycle and pedestrian facilities connecting to the existing facilities to the south of the site, at the same locations identified in the Master Plan. The proposed Class II bicycle lanes throughout the project site would provide a continuous bicycle route between the area south of the site and the bicycle facilities currently under construction to the northwest of the site as part of the Promenade/Vineyards at Sand Creek Project in the City of Antioch. The Promenade/Vineyards at Sand Creek Project will include bicycle facilities connecting to Old Sand Creek Road. Therefore, the proposed bicycle and pedestrian infrastructure would provide an equivalent level of connectivity as was envisioned in the Master Plan.

Therefore, the proposed project would not conflict with adopted policies, plans, or programs regarding pedestrian or bicycle facilities, or otherwise decrease the performance or safety of such facilities.

Transit Facilities

Although the transit routes currently operated by TDT, including routes 385 and 395, have stops on Sand Creek Road in the project vicinity, the transit routes within the City do not extend west of SR 4 at Sand Creek Road. However, upon buildout of the proposed project, TDT would evaluate the potential ridership associated with the project site and adjust routes as necessary. Given a conservative assumption that one percent of the residents of the proposed project would use transit during the peak hours of the day, the proposed project would generate approximately six transit passengers in the weekday AM peak period and 13 transit passengers in the weekday

[11] City of Brentwood. *Parks, Trails & Recreation Master Plan Update.* February 26, 2019.

PM peak period. Such a relatively small number of additional passengers would not be anticipated to substantially degrade TDT operations. Thus, the proposed project would not conflict with adopted policies, plans, or programs regarding public transit facilities, or otherwise decrease the performance or safety of such facilities.

Conclusion

Based on the above, the proposed project would not conflict with adopted policies, plans, or programs supporting alternative transportation (i.e., bus turnouts, bicycle lanes, bicycle racks, public transit, pedestrian facilities, etc.). Thus, the project would result in a ***less-than-significant*** impact to pedestrian, bicycle, and transit facilities.

Mitigation Measure(s)

None required.

4.5-3 Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). Based on the analysis below and with the implementation of mitigation, the impact is *less than significant*.

Table 4.5-2 summarizes the results of the VMT analysis prepared for the proposed project.

Table 4.5-2
Project VMT Analysis Results

City of Brentwood		Proposed Project
VMT/Resident	**Threshold of Significance**	**VMT/Resident**
29.6	25.2	27.0

Source: DKS, 2023.

The average VMT per resident for the City of Brentwood was identified to be 29.6. As discussed previously, per CCTA and OPR guidance, residential projects that generate average VMT per resident at 15 percent less than the regional baseline average may be considered to have a less-than-significant VMT impact. Therefore, the VMT thresholds applied to the proposed project are 15 percent less than the regional baseline, or 25.2 VMT per resident. Based on the analysis, the proposed project is estimated to generate 27.0 daily VMT per resident, which exceeds the identified VMT threshold of significance.

The results of the VMT analysis indicate that the proposed project would contribute to a reduction in VMT per resident as compared to the City average, but the reduction is not sufficient to reduce project VMT to below the applicable threshold of significance. As such, because the proposed project would generate VMT that exceeds the applicable threshold, the project would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b), and a ***significant*** impact could occur.

Mitigation Measure(s)

According to DKS, the most feasible and quantifiable mitigation strategy was determined to be an increase in intersection density, listed as Measure T-17 in the

CAPCOA's Handbook for Analyzing Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity.[12] Adding one intersection to the internal project roadway network would increase the project-wide intersection density to 61.5, and result in an overall reduction in VMT of approximately 10 percent, which would be sufficient to reduce project VMT to below 25.2 VMT per resident. Therefore, implementation of Mitigation Measure 4.5-3 would reduce the above potential impact to a *less-than-significant* level.

4.5-3 *Prior to improvement plan approval, the proposed tentative map shall be revised to include an additional full intersection to achieve a project-wide intersection density of 61.5. The revised map shall be submitted to the City Engineer for review and approval. A potential intersection location is included as an Appendix to the VMT Assessment prepared for the proposed project by DKS.*

4.5-4 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) or result in inadequate emergency access. Based on the analysis below, the impact is *less than significant*.

The proposed project would not include the installation of any sharp curves or dangerous intersections. Given the proposed residential land use, the use of incompatible equipment would not occur. For example, given the proposed residential use, farming equipment would be unlikely to operate on-siteDuring construction, equipment would be staged on-site. Furthermore, the project site is not located in a central area of the City, and construction on the project site would not be anticipated to result in substantial road closures or otherwise interfere with citywide vehicle circulation. Nonetheless, as required by Mitigation Measure 4.5-1, a Construction Traffic Management Plan would be implemented during construction, which would ensure that roadway hazards would not occur. As a result, impacts related to hazards and vehicle safety due to a geometric design feature would not occur.

Several factors determine whether a project has sufficient access for emergency vehicles, including the following:

a) Number of access points (both public and emergency access only);
b) Width of access points; and
c) Width of internal roadways.

Vehicular access to the proposed single-family residential area would be provided at three locations: 1) the westerly extension of Sand Creek Road, 2) the westward extension of San Jose Avenue; and 3) the northerly extension of St. Regis Avenue. The project would not include any substantial modifications to the planned roadway system in the project area. The width of the access points would be able to accommodate emergency vehicles, and the number of access points would be

[12] California Air Pollution Control Officer's Association. *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*. December 2021.

sufficient to provide emergency services to the proposed project. Additionally, it is noted that all internal roadways would be subject to the City of Brentwood Design Guidelines, and undergo Design and Site Development Review per Chapter 17.820 of the Brentwood Municipal Code. Compliance with such would ensure that all access points and internal roadways would be safely designed so as not to create any hazardous design elements or limit access to emergency vehicles.

Based on the above, the proposed development project would not substantially increase hazards due to a geometric feature, or result in inadequate emergency access, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

For further detail related to the cumulative setting of the proposed project, refer to Chapter 6, Statutorily Required Sections, of this REIR. The cumulative setting for the following analysis is Contra Costa County, based on the assumptions of the CCTA model.

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

It should be noted that increased traffic volumes on local roadway facilities under cumulative conditions would not substantially alter performance related to pedestrian facilities, bicycle facilities, transit facilities and services, hazards, and emergency vehicle access. Rather, impacts to such facilities under cumulative conditions would be identical to those discussed above under Impacts 4.5-2 and 4.5-4. In addition, construction activities associated with the project would be complete prior to the cumulative analysis year. Therefore, such topics are not discussed further in the cumulative analysis presented herein.

4.5-5 Result in cumulative conflicts or inconsistencies with CEQA Guidelines Section 15064.3, subdivision (b). Based on the analysis below, the impact is *less than cumulatively considerable*.

Given that the project-specific VMT analysis determined that less-than-significant impacts would occur with the implementation of mitigation, an analysis of cumulative VMT is not required.[13] Nevertheless, the following analysis is included for informational purposes.

The cumulative VMT analysis results are presented in Table 4.5-3. As shown therein, the With Project VMT per capita for the study area would be lower than that of the No

[13] Contra Costa Transportation Authority. *Implementation Guide*. February 17, 2021.

Project scenario. Therefore, DKS concluded that implementation of the proposed project would not result in a cumulative impact related to overall VMT.

Table 4.5-3
Cumulative VMT Analysis Results

Geographic Area	With Project	No Project
TAZ 30689 Home-Based VMT Per Capita	19.1	19.2
Study Area Link VMT	704,816	703,602
Population in Study Area TAZs	83,577	82,671
Study Area VMT Per Population	8.4	8.5

Source: DKS, 2023.

Because the proposed project would result in an overall reduction in VMT, the proposed project would not result in cumulative conflicts or inconsistencies with CEQA Guidelines Section 15064.3 subdivision (b), and the impact would be ***less than cumulatively considerable***.

Mitigation Measure(s)

None required.

5.0 Effects Not Found to be Significant

5. EFFECTS NOT FOUND TO BE SIGNIFICANT

5.1 INTRODUCTION

Section 15128 of the California Environmental Quality Act (CEQA) Guidelines requires that an EIR briefly describe why various environmental effects were determined not to be significant and therefore were not discussed in detail in the EIR. The Initial Study prepared for the proposed project (Appendix C to this REIR) includes a detailed environmental checklist addressing a range of technical environmental issues. For each technical environmental issue, the Initial Study identifies the level of impact for the proposed project. The Initial Study identifies the environmental effects as "no impact," "less than significant," "less than significant with mitigation incorporated," and "potentially significant." The Effects Not Found to be Significant chapter of this REIR summarizes environmental issues that the Initial Study determined have no impact, a less-than-significant impact, or impact that is less-than-significant with mitigation incorporated with implementation of the proposed project. Impacts identified in the Initial Study as less than significant, less than significant with mitigation incorporated, or no impact are summarized below. All remaining issues identified in the Initial Study as potentially significant are discussed in the technical chapters of this REIR.

5.2 AESTHETICS

Consistent with Appendix G of the CEQA Guidelines, the proposed project was determined to have a less-than-significant impact or less-than-significant with mitigation incorporated with regard to the following issue areas:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality; or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

The proposed project is located near State Route (SR) 4, which has been designated as an Eligible State Scenic Highway and a local scenic route due to the panoramic vistas of the Diablo Range and Mount Diablo afforded to drivers on the highway. The proposed grading activities would reduce the elevation of the higher portions of the project site and build up the lower portions such that the required cut and fill soils would balance across the project site. While the project applicant would be required to refrain from unnecessary leveling or grading through compliance with General Plan Policy COS 7-2 ("Preserve the topography of Brentwood's hills by discouraging unnecessary leveling/grading activities prior to site-building on hillsides where development is permitted."), the proposed on-site grading cuts are necessary to avoid hauling soils to the site.;

as such, the proposed project would not be inconsistent with the General Plan. In addition, because the site has been anticipated for development in the General Plan, some level of grading has been anticipated to occur at the project site. Furthermore, the portions of the project site that are proposed for development are currently designated for buildout with residential and open space uses per the General Plan, and associated impacts related to scenic vistas and scenic resources were analyzed in the General Plan EIR. Thus, the proposed project would not have a substantial adverse effect on a scenic vista and would not damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.

The implementation of the proposed project would change the existing visual setting from open grazing land to a suburban area consisting of a single-family residential subdivision as well as associated improvements within the project site, including parks, open space, stormwater detention and treatment areas, utility connections, and an internal roadway network. Public views in the project vicinity would consist primarily of views seen by motorists traveling on SR 4 and motorists, bicyclists, and pedestrians traveling on local roadways to the south of the project site, including La Sata Drive, St. Regis Avenue, and San Jose Avenue and Old Sand Creek Road to the north. The proposed project would be consistent with the project site's existing General Plan land use designations. In addition, the project would be subject to Design Review approval, which would ensure that the proposed project would be compatible with other facilities in the immediate area and with the overall setting of the area as viewed from key vantage points in the community, as well as designed in compliance with the City's established Design Guidelines. As such, the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings beyond what has been previously evaluated in the General Plan EIR. The proposed project would introduce new sources of light and glare to the site; however, as required by Mitigation Measure I-1 of the Initial Study, the developer shall shield all on-site lighting so that nighttime lighting is directed within the project site and does not illuminate adjacent properties. Compliance with such would ensure that the light and glare created by the proposed project would not adversely affect daytime or nighttime views in the area. Overall, the impacts related to aesthetics resulting from buildout of the proposed project would be less than significant with mitigation.

5.3 AGRICULTURE AND FOREST RESOURCES

Consistent with Appendix G of the CEQA Guidelines the proposed project was determined to have a less-than-significant impact with regard to the following issue areas:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g));
- Result in the loss of forest land or conversion of forest land to non-forest use; or

- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

The project site is not zoned for agricultural use, forest land, timberland, or Timberland Production, and is not under a Williamson Act Contract. Thus, no impact related to any conflicts with such would occur. The project site is identified by the California Department of Conservation Farmland Mapping and Monitoring Program as Farmland of Local Importance; however, the portions of the project site proposed for development are currently designated by the General Plan for residential and open space uses and, thus, conversion of Farmland associated with buildout of the project site has been previously analyzed in the General Plan EIR. Furthermore, as defined in Mitigation Measure II-1 in the Initial Study, the proposed project would be required to comply with Chapter 17.730 (Agricultural Preservation Program) of the Brentwood Municipal Code. Therefore, impacts related to agriculture and forest resources would be less than significant with mitigation.

5.4 CULTURAL RESOURCES

Consistent with Appendix G of the CEQA Guidelines the proposed project was determined to have a less-than-significant impact or less-than-significant with mitigation with regard to the following issue areas:

- Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;
- Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5; or
- Disturb any human remains, including those interred outside of dedicated cemeteries.

In compliance with Assembly Bill (AB) 52 (Public Resources Code Section 21080.3.1), the City distributed project notification letters to the following tribes: Wilton Rancheria, Chicken Ranch Rancheria of Me-Wuk Indians, Guidiville Indian Rancheria, Nashville Enterprise Miwok-Maidu-Nishinam Tribe, Tule River Indian Tribe, The Ohlone Indian Tribe, North Valley Yokuts Tribe, Muwekma Ohlone Indian Tribe of the SF Bay Area, Wukasche Indian Tribe/Eshom Valley Band, The Confederated Villages of Lisjan, Indian Canyon Mutsun Band of Costanoan, and Amah Mutsun Tribal Band of Mission San Juan Bautista. The letters were distributed on October 28, 2022. Requests to consult were not received from any of the aforementioned tribes.

According to the Updated Cultural Resources Report prepared for the proposed project, the project site does not contain any historical resources. However, unknown archaeological resources, including human remains, and/or historic resources have the potential to exist on-site, and, thus, ground-disturbing activity related to project construction could encounter such resources. The proposed project would be required to comply with Mitigation Measure V-1 of the Initial Study, which requires Cultural Resources Worker Environmental Awareness Program (WEAP) training for all personnel involved in ground-disturbing, site preparation construction activities on the project site prior to construction and ground-disturbing activities, as well as Mitigation Measure V-2, which addresses the discovery of significant archaeological and historic resources during construction and grading activities, requiring that development work be stopped



in the event of a discovery and that appropriate measures be implemented to protect the resource. Furthermore, the proposed project would be required to comply with Mitigation Measure V-3, which requires plans to indicate (via notation on the improvement plans) that if human remains, or remains that are potentially human, are found during construction, a professional archeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance. Through compliance with the foregoing Mitigation Measures, impacts to cultural resources would be less than significant.

5.5 GEOLOGY AND SOILS

Consistent with Appendix G of the CEQA Guidelines the proposed project was determined to have a less-than-significant impact or less-than-significant with mitigation incorporated with regard to the following issue areas:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
    - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42;
    - Strong seismic ground shaking;
    - Seismic-related ground failure, including liquefaction;
    - Landslides;
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property;
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater; or
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

As required by Mitigation Measure VII-1 of the Initial Study, the proposed residences would be required to be properly engineered in accordance with the California Building Standards Code, which includes engineering standards appropriate for the seismic area in which the project site is located. In addition, in compliance with Mitigation Measures VII-2 through VII-5 and Mitigation Measure VII-9, the proposed project would be required to follow all recommendations included in a geotechnical evaluation and report prepared for the proposed project. Compliance with such would help to reduce potential impacts related to seismic effects and other geological hazards such as expansive soils. Furthermore, compliance with Mitigation Measures VII-6 through VII-7, which require the preparation of a final grading plan and an erosion control plan, would reduce impacts related to soil erosion and loss of topsoil. Additionally, Mitigation Measure VII-8 requires that grading, soil disturbance and compaction not take place during periods of rain or on ground that contains freestanding water. Although the proposed project would not have the potential to



result in the destruction of unique geologic features, previously unknown paleontological resources could exist within the project site. Thus, ground-disturbing activity could have the potential to disturb or destroy such resources. However, compliance with Mitigation Measure VII-10 in the Initial Study, which describes the procedures to preserve any previously unknown paleontological resources encountered during buildout of the proposed project, would ensure that impacts to paleontological resources would not occur. Overall, impacts related to geology and soils would be less than significant with mitigation.

5.6 HYDROLOGY AND WATER QUALITY

Consistent with Appendix G of the CEQA Guidelines the proposed project was determined to have a less-than-significant impact or less-than-significant with mitigation with regard to the following issue areas:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    - Result in substantial erosion or siltation on- or off-site;
    - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
    - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
    - Impede or redirect flood flows;
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

The proposed project would be required to comply with the applicable State Water Resources Control Board (SWRCB) regulations, including coverage under the State's General Construction Permit. As set forth in the Initial Study, implementation of Mitigation Measures X-1 through X-9 would ensure that the proposed project would comply with all applicable SWRCB and County requirements such that the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality, and that the proposed stormwater treatment and control BMPs function properly by requiring the preparation and submittal of a Stormwater Control Operation and Maintenance Plan as well as a Stormwater Management Facilities Operation and Maintenance Agreement and Right of Entry.. Compliance with these Mitigation Measures would ensure that impacts are reduced to a less-than-significant level. In addition, because adequate groundwater supply exists to serve the proposed project, and because the project would allow stormwater to percolate within on-site soils, the project would not substantially deplete groundwater supplies or interfere substantially

with groundwater recharge and would not conflict with an applicable groundwater management plan or water quality control plan. Grading and/or placement of permanent supports within the 100-year flood plain would not be required, and impedance or redirection of flood flows would not occur. Due to the distance of the project site from the coast and from a closed body of water, impacts related to tsunamis and seiches would not occur. In addition, given compliance with the recommendations included in the Geotechnical Exploration prepared for the project site, impacts related to mudflows would not occur. Overall, impacts related to hydrology and water quality would be less than significant with mitigation.

5.7 LAND USE AND PLANNING

Consistent with Appendix G of the CEQA Guidelines the proposed project was determined to have a less-than-significant with regard to the following issue areas:

- Physically divide an established community; or
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

The proposed project would not physically divide an established community; in fact, the roadway improvements associated with the proposed project would improve connectivity in the project vicinity. In addition, the proposed project would be consistent with the land use type and intensity typical of the City's Residential-Low Density (R-LD), Permanent Open Space (P-OS), and Park (P) General Plan land use designations, which are the designations of the on-site portions proposed for development. The Regulatory Context section of each technical chapter of this REIR includes all applicable federal, State, and local land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental effect. As shown throughout this REIR, the proposed project would not conflict with any such plans, policies, or regulations. Furthermore, the proposed project would be consistent with nearby urban development. Therefore, impacts related to land use and planning would be less than significant.

5.8 MINERAL RESOURCES

Consistent with Appendix G of the CEQA Guidelines the proposed project was determined to have a less-than-significant with regard to the following issue areas:

- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or
- Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

The City's General Plan EIR identifies coal, oil and gas, and sand as the significant mineral resources within the area. According to the Phase I Environmental Site Assessment prepared for the proposed project, the project site contains up to seven crude oil or natural gas production wells that have been decommissioned and abandoned in accordance with California Geologic Energy Management Department regulations. The project site has not been used for such purposes since approximately 1996. Per Section 17.680.021 of the City's Municipal Code, the proposed project is required to include adequate development setbacks from abandoned wells. The setbacks would ensure that the proposed project would not preclude future access of the



wells, if necessary. Nonetheless, because the wells have been decommissioned and abandoned, the proposed project would not result in the loss of availability of such resources. Thus, a less-than-significant impact would occur.

5.9 POPULATION AND HOUSING

Consistent with Appendix G of the CEQA Guidelines the proposed project was determined to have no impact with regard to the following issue areas:

- Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure); or
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

The proposed project includes the construction of 286 single-family residences, and would be consistent with the General Plan land use designation for the project site; thus, the proposed project would not directly or indirectly induce substantial unplanned population growth. The project site is currently vacant and void of any habitable structures. As such, the proposed project would not displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere. Therefore, impacts related to population and housing would not occur.

5.10 PUBLIC SERVICES

Consistent with Appendix G of the CEQA Guidelines the proposed project was determined to have a less-than-significant impact or less-than-significant with mitigation with regard to the following issue areas:

- Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
    - Fire protection;
    - Police protection;
    - Schools;
    - Parks; or
    - Other Public Facilities.

The project would be required to pay development fees that support emergency police and fire services. The project's impacts to fire service would be reduced to a less-than-significant level through compliance with Mitigation Measures XV-1 and XV-2 of the Initial Study, which require the project applicant to: (a) pay a fire impact fee or other such amount necessary to fund developer's proportionate share of fire capital assets, and (b) participate in a Community Facilities District, which has been established by the Fire District and will include annual assessments in an amount sufficient to cover the service costs associated with the new residences. Similarly, Mitigation Measure XV-3 requires the project developer to pay the applicable mitigation fees to

the City of Brentwood Police Department, thus reducing impacts related to police protection facilities to a less-than-significant level. In addition, the project would be required to comply with Mitigation Measure XV-4, which requires the project to pay applicable fees to the Liberty Union High School District and the Brentwood Union School District. Chapter 16.150 of the City's Municipal Code specifies that subdivision projects including more than fifty parcels are required to dedicate 0.0160 acre of land per dwelling unit for park purposes; therefore, the proposed project would be required to provide at least 4.6 acres of parkland (286 residential units x 0.0160 acre of parkland). As part of the proposed project, a total of 9.39 acres of land located within the project site would be dedicated to the City of Brentwood for use as public parks. As such, the proposed project would include an amount of parkland for the estimated number of residents in compliance with the City's parkland dedication requirements. Overall, impacts related to public services resulting from buildout of the proposed project would be less than significant with mitigation.

5.11 RECREATION

Consistent with Appendix G of the CEQA Guidelines the proposed project was determined to have a less-than-significant impact with regard to the following issue areas:

- Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

The proposed project would be required to comply with the City's parkland requirements. As discussed previously, in compliance with Chapter 16.150 of the City's Municipal Code, the proposed project would include a total of 9.39 acres of land dedicated for use as public parks. While the project would include the construction of new park facilities within the project site, the physical effects associated with construction of such facilities has been evaluated throughout this EIR. Thus, impacts related to recreation would be less than significant.

5.12 TRIBAL CULTURAL RESOURCES

Consistent with Appendix G of the CEQA Guidelines the proposed project was determined to have a less-than-significant impact with regard to the following issue areas:

- Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:
    - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or
    - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in



subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

As discussed previously, in compliance with AB 52, project notification letters were distributed to the aforementioned tribes on October 28, 2022; no requests to consult were received. Based on the history of disturbance at the project site as a result of past development and agricultural uses, as well as the lack of identified tribal cultural resources at the site, known tribal cultural resources are not expected to occur within the site. Nevertheless, the possibility exists that development of the proposed project could result in a substantial adverse change in the significance of a tribal cultural resource if previously unknown tribal cultural resources are uncovered during grading or other ground-disturbing activities. However, as discussed above, compliance with Mitigation Measure XVIII-1 from the Initial Study would ensure that impacts to tribal cultural resources would be less than significant.

5.13 UTILITIES AND SERVICE SYSTEMS

Consistent with Appendix G of the CEQA Guidelines the proposed project was determined to have a less-than-significant impact with regard to the following issue areas:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

The proposed project would include utility improvements to water, storm drainage, and sewer infrastructure, which would be adequately sized to meet demands from the proposed development. In addition, per the City's Water and Sewer Master Plans, pipes and other infrastructure in the project area are planned to accommodate buildout of the General Plan. Specifically, a non-potable water line is planned to be constructed in Sand Creek, near the project site. The Master Plan anticipated development of the project site. As such, the existing and planned infrastructure in the project area is anticipated to have adequate capacity to serve the proposed project. Overall, impacts related to utilities and service systems would be less than significant.

5.14 WILDFIRE

Consistent with Appendix G of the CEQA Guidelines the proposed project was determined to have a less-than-significant impact with regard to the following issue areas:



- Substantially impair an adopted emergency response plan or emergency evacuation plan;
- Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Wildfire impacts are discussed in Chapter 4.3, Hazards and Hazardous Materials, of this REIR. As discussed therein, according to the California Department of Forestry and Fire Protection, the Fire and Resource Assessment Program indicates that the project site is not located within or adjacent to a Very High Fire Hazard Severity Zone. In addition, development of the proposed project would include the installation of fire suppression systems (e.g., fire hydrants, fire sprinklers, smoke detectors) and would be designed in accordance with the latest requirements of the California Fire Code. In accordance with State standards, the project would be required to maintain defensible space to provide a fire break that would prevent the spread of ground fires and protect on-site structures. The proposed project would also be subject to fire safety requirements of the Contra Costa County Fire Protection District. Compliance with such would ensure that the potential hazards associated with wildland fires to the proposed buildings and structures would be reduced, and impacts related to wildfire risk would be less than significant.

6.0 Statutorily Required Sections

6. STATUTORILY REQUIRED SECTIONS

6.1 INTRODUCTION

The Statutorily Required Sections chapter of the Draft REIR includes discussions regarding those topics that are required to be included in an EIR, pursuant to CEQA Guidelines, Section 15126.2. The chapter includes a discussion of the proposed project's potential to result in growth-inducing impacts; the cumulative setting analyzed in this REIR; significant irreversible environmental changes; and significant and unavoidable impacts caused by the proposed project.

6.2 GROWTH-INDUCING IMPACTS

State CEQA Guidelines Section 15126.2(e) requires an EIR to evaluate the potential growth-inducing impacts of a proposed project. Specifically, an EIR must discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth can be induced in a number of ways, including the elimination of obstacles to growth, or by encouraging and/or facilitating other activities that could induce growth. Examples of projects likely to have growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or office complexes in areas that are currently only sparsely developed or are undeveloped.

The CEQA Guidelines are clear that while an analysis of growth-inducing effects is required, it should not be assumed that induced growth is necessarily significant or adverse. This analysis examines the following potential growth-inducing impacts related to implementation of the proposed project and assesses whether these effects are significant and adverse (see CEQA Guidelines, Section 15126.2[e]):

1. Foster population and economic growth and construction of housing.
2. Eliminate obstacles to population growth.
3. Affect service levels, facility capacity, or infrastructure demand.
4. Encourage or facilitate other activities that could significantly affect the environment.

Foster Population and Economic Growth and Construction of Housing

As discussed throughout this REIR, development of the site with 286 single-family residences would increase the available housing within the Brentwood area and would consequently be expected to increase population in the area. Overall, a total of 61.961 acres of the project site would be developed with single-family residential units. Therefore, buildout of the single-family residential development would result in a density of approximately 4.62 dwelling units per acre (du/ac).[1] This is consistent with the Residential-Low Density (R-LD) General Plan land use designation for the project site, which allows for development of single-family dwellings with a density range of 1.1 to five du/ac with a mid-range density of three du/ac. The City's General Plan EIR assumes 3.22 persons per household in new, detached single-family residential units.[2] Using the City's persons per household rate of 3.22, the proposed project could result in a maximum

[1] 286 single-family homes/61.961 acres = 4.62 dwelling units per acre.
[2] City of Brentwood. *2014 Brentwood General Plan Draft Environmental Impact Report*, page 3.10-32. April 2014.

population of 921 (3.22 persons per household X 286 residential units = 920.92). Under the existing land use designations for the site, particularly the approximately 62-acre R-LD portion of the project site, a theoretical maximum total of approximately 310 residential units (61.961 acres X five du/ac =309.81) could be built on the project site, resulting in a population of approximately 998 residents. Thus, the proposed project would result in 77 fewer residents than currently anticipated for the site based on the top end of the existing General Plan land use designations. However, as discussed throughout this EIR, a Rezone to amend the PD-36 zone may be required for the proposed project.

The new residential population would likely patronize local businesses and services in the area, fostering economic growth. While the proposed project is consistent with the General Plan land use designation, the project would be inconsistent with the standards for PD-36. Population growth resulting from the proposed project would be within the City of Brentwood and the Association of Bay Area Governments (ABAG) growth estimates for the project area.

While construction of the proposed project would result in increased construction employment opportunities, which could potentially result in increased permanent population and demand for housing in the vicinity of the project site, employment patterns of construction workers is such that construction workers would not likely, to any significant degree, relocate their households as a result of the construction-related employment opportunities associated with the proposed project. Although the project would provide short-term employment opportunities, which would likely be filled from the local employee base, with the possible exception of a few household and landscape maintenance jobs, permanent jobs would not be created by the proposed project. Therefore, the project would not result in long-term employment growth in the area.

Appendix G of CEQA Guidelines has been recently amended to clarify that unplanned population growth would be considered a potentially significant impact. However, growth that is planned, and the environmental effects of which have been analyzed in connection with a land use plan or a regional plan, should not by itself be considered an impact. The proposed project would result in population growth of the City of Brentwood; however, because development of the single-family residences would be consistent with the current General Plan land use designation for the site, such growth would be within the buildout projections for the City. A discussion of physical impacts associated with growth are addressed throughout the REIR. Thus, while the project would foster population and economic growth, such growth would be similar to what has been anticipated for the project region, and a less-than-significant impact related to population and economic growth would occur.

Eliminate Obstacles to Population Growth

The elimination of either physical or regulatory obstacles to growth is considered to be a growth-inducing effect. A physical obstacle to growth typically involves the lack of public service infrastructure. The extension of public service infrastructure, including roadways, water mains, and sewer lines, into areas that are not currently provided with these services, would be expected to support new development. Similarly, the elimination or change to a regulatory obstacle, including existing growth and development policies, could result in new growth.

As discussed in Chapter 5, Effects Not Found to be Significant, of this REIR, the proposed project would include utility improvements to water, storm drainage, and sewer infrastructure, which would be adequately sized to meet demands from the proposed development. In addition, per the City's Water and Sewer Master Plans, pipes and other infrastructure in the project area are

planned to accommodate buildout of the General Plan. Specifically, a non-potable water line is planned to be constructed in Sand Creek, near the project site. The City's Water and Sewer Master Plans anticipated development of the project site. As such, the existing and planned infrastructure in the project area is anticipated to have adequate capacity to serve the proposed project and the project would not require the construction of new or expanded water conveyance infrastructure. Water conveyance infrastructure needed for the proposed project would be constructed on-site, and would be financed by the project applicant. Consequently, the construction of on-site water infrastructure would not be anticipated to result in elimination of obstacles to population growth.

Given that all sewer improvements would be consistent with the City's Water and Sewer Master Plans, the proposed infrastructure improvements would not allow for or encourage growth where such growth was not previously planned. Rather, the proposed project would include development as envisioned in the City's General Plan, which would meet the needs of future planned development within the immediate project area.

In addition, the proposed project would include the extension of a portion of Sand Creek Road along the northern boundary of the proposed single-family residences and connect to the entrance of the project site. Sand Creek Road would be further extended as part of the City of Brentwood's Sand Creek Road Extension Project.

Although implementation of the aforementioned improvements may be considered to eliminate obstacles to growth, such improvements are essential to support the proposed project, and the improvements would not eliminate obstacles to growth in a manner that would encourage previously unplanned growth.

Based on the above information, the proposed project would not eliminate a physical or regulatory obstacle that would, as a result, create a growth-inducing effect.

Affect Service Levels, Facility Capacity, or Infrastructure Demand

Increases in population that would occur as a result of a proposed project may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental impacts. As discussed in Chapter 5, Effects Not Found to be Significant, of this REIR, increased demands for public services, including fire and police protection services, attributable to the proposed project would not necessitate the construction of new or expanded facilities that could cause significant environmental impacts. The project would be required to comply with General Plan policies and to pay development fees that support emergency police and fire services. The project's impacts to fire service would be fully mitigated by a condition of approval to participate in a Community Facilities District, which has been established by the Fire District and will include annual assessments in an amount sufficient to cover the service costs associated with the new residences. In addition, the project would be required to pay applicable fees to the Liberty Union High School District and the Brentwood Union School District.

A Stormwater Control Plan has been prepared for the single-family residential portion of the project, demonstrating how this portion of the project will comply with C.3 Standards and treat and detain stormwater runoff. Further, in compliance with C.3 Standards, Stormwater Control Plans will be required to be submitted for the remaining parcels, and a long-term maintenance plan will be prepared to ensure that all proposed stormwater treatment and control BMPs function properly. Compliance with C.3 Standards would ensure that impacts related to creating or

contributing runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or providing substantial additional sources of polluted runoff are reduced to a less-than-significant level. The proposed project would be required to comply with the applicable State Water Resources Control Board regulations, including coverage under the State's General Construction Permit.

Based on the above, the proposed project would not increase population such that service levels, facility capacity, or infrastructure demand would require construction of new facilities that could cause significant environmental impacts.

Encourage or Facilitate other Activities That Could Significantly Affect the Environment

A comprehensive assessment of the potential for environmental impact associated with implementation of the proposed project is provided in this REIR. Please refer to Chapters 4.1 through 5 of this REIR, which comprehensively address the potential for impacts from urban development on the project site.

6.3 CUMULATIVE IMPACTS

CEQA Guidelines, Section 15130 requires that an EIR discuss the cumulative and long-term effects of the proposed project that would adversely affect the environment. "Cumulative impacts" are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines, Section 15355). "[I]ndividual effects may be changes resulting from a single project or a number of separate projects" (CEQA Guidelines, Section 15355, subd. [a]). "The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time" (CEQA Guidelines, Section 15355, subd. [b]).

The need for cumulative impact assessment reflects the fact that, although a project may cause an "individually limited" or "individually minor" incremental impact that, by itself, is not significant, the increment may be "cumulatively considerable," and, thus, significant, when viewed together with environmental changes anticipated from past, present, and probable future projects (CEQA Guidelines, Section 15064, subd. [h(1)], Section 15065, subd. [c], and Section 15355, subd. [b]). Accordingly, particular impacts may be less than significant on a project-specific basis but significant on a cumulative basis if their small incremental contribution, viewed against the larger backdrop, is cumulatively considerable. However, it should be noted that CEQA Guidelines, Section 15064, subdivision (h)(4) states, "[t]he mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable." Therefore, even where cumulative impacts are significant, any level of incremental contribution is not necessarily deemed cumulatively considerable.

Section 15130(b) of CEQA Guidelines indicates that the level of detail of the cumulative analysis need not be as great as for the project impact analyses, but that analysis should reflect the severity of the impacts and their likelihood of occurrence, and that the analysis should be focused, practical, and reasonable. To be adequate, a discussion of cumulative effects must include the following elements:

(1) Either (a) a list of past, present and probable future projects, including, if necessary, those outside the agency's control, or (b) a summary of projections contained in an adopted local, regional, or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction f greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such documents shall be referenced and made available to the public at a location specified by the lead agency;

(2) When utilizing a list, as suggested in paragraph (1) of subdivision (b), factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined, the location of the project and its type. Location may be important, for example, when water quality impacts are at issue since projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, when the impact is specialized, such as a particular air pollutant or mode of traffic.;

(3) Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used;

(4) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and

(5) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.(Section 15130[b]).

For some projects, the only feasible mitigation measures will involve the adoption of ordinances or regulations, rather than the imposition of conditions on a project-by-project basis (Section 15130[c]). Section 15130(a)(3) states that an EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable, and thus not significant, if a project is required to implement or fund the project's fair share of a mitigation measure or measures designed to alleviate the cumulative impact.

A discussion of cumulative impacts is provided within each of the technical chapters of this REIR pursuant to CEQA Guidelines Section 15130.

Cumulative Setting

The lead agency should define the relevant geographic area of inquiry for each impact category (id., Section 15130, subd. [b][3]), and should then identify the universe of "past, present, and probable future projects producing related or cumulative impacts" relevant to the various categories, either through the preparation of a "list" of such projects or through the use of "a summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect" or "in an adopted or certified prior environmental document for such a plan…"" (id., subd. [b][1]).

Limited situations exist where the geographic setting differs for the various resource areas. For example, the cumulative geographic setting for air quality is the San Francisco Bay Area Air Basin

(SFBAAB), which is the air basin that the proposed project is located within. Global climate change is, by nature, a cumulative impact. Emissions of greenhouse gases (GHG) contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change (e.g., sea level rise, impacts to water supply and water quality, public health impacts, impacts to ecosystems, impacts to agriculture, and other environmental impacts). A single project could not generate enough GHG emissions to contribute noticeably to a change in the global average temperature. However, the GHG emissions from a project in combination with other past, present, and future projects could contribute substantially to the world-wide phenomenon of global climate change and the associated environmental impacts. Although the geographical context for global climate change is the Earth, for analysis purposes under CEQA, and due to the regulatory context pertaining to GHG emissions and global climate change applicable to the proposed project, the geographical context for global climate change in this REIR is limited to the State of California.

6.4 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

As established in CEQA Guidelines Section 15126.2(d), this REIR is required to include consideration of significant irreversible environmental changes that would be caused by the proposed project, should the project be implemented. An impact would be determined to be a significant and irreversible change in the environment under Section 15126.2(d) if:

- Buildout of the project area could involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of development could generally commit future generations to similar uses (e.g., a highway provides access to a previously remote area);
- Development of the proposed project could involve uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The phasing and eventual development of the project could result in an unjustified consumption of resources (e.g., the wasteful use of energy).

The proposed project would likely result in, or contribute to, the following significant irreversible environmental changes:

- Conversion of predominantly vacant land to a fully built-out residential community, thus precluding alternative land uses in the future; and
- Irreversible consumption of goods and services, such as fire, police, and school services, associated with the future population; and
- Irreversible consumption of energy and natural resources, such as water, electricity, and natural gas, associated with the future residents.

6.5 SIGNIFICANT AND UNAVOIDABLE IMPACTS

According to CEQA Guidelines, an EIR must include a description of those impacts identified as significant and unavoidable should the proposed action be implemented (CEQA Guidelines Section 15126.2[c]). Such impacts would be considered unavoidable when the determination is made that either mitigation is not feasible or only partial mitigation is feasible such that the impact is not reduced to a level that is less-than-significant. All significant impacts identified in this REIR can be eliminated or reduced to a less-than-significant level by mitigations imposed by the City. The final determination of the significance of impacts and the feasibility of mitigation measures would be made by the City as part of the City's certification action.

7. Alternatives Analysis

7. ALTERNATIVES ANALYSIS

7.1 INTRODUCTION

The Alternatives Analysis chapter of the REIR includes consideration and discussion of a range of reasonable alternatives to the proposed project, as required per CEQA Guidelines Section 15126.6. Generally, the chapter includes discussions of the following: the purpose of an alternatives analysis; alternatives considered but dismissed; a reasonable range of project alternatives and their associated impacts in comparison to the proposed project's impacts; and the environmentally superior alternative.

7.2 PURPOSE OF ALTERNATIVES

The primary intent of the alternatives evaluation in an EIR, as stated in Section 15126.6(a) of the CEQA Guidelines, is to "[…] describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." In the context of CEQA Guidelines Section 21061.1, "feasible" is defined as:

> ...capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

Section 15126.6(f) of CEQA Guidelines states, "The range of alternatives required in an EIR is governed by a 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice." Section 15126.6(f) of CEQA Guidelines further states:

> The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determined could feasibly attain most of the basic objectives of the project.

In addition, an EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative."

The CEQA Guidelines provide the following guidance for discussing alternatives to a proposed project:

- "An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives" (CEQA Guidelines Section 15126.6[a]).
- "Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if

these alternatives would impede to some degree the attainment of the project objectives, or would be more costly" (CEQA Guidelines Section 15126.6[b]).

- The EIR should briefly describe the rationale for selecting the alternatives to be discussed. "The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination […] Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts" (CEQA Guidelines Section 15126.6[c]).
- "The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison" (CEQA Guidelines Section 15126.6[d]).
- "If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed" (CEQA Guidelines Section 15126.6[d]).
- "The specific alternative of "no project" shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline" (CEQA Guidelines Section 15126.6[e][1]).
- "If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives" (CEQA Guidelines Section 15126.6[e][2]).

Project Objectives

Based on the above, reasonable alternatives to the project must be capable of feasibly attaining most of the basic objectives of the project. The proposed project is being pursued with the following objectives:

1. Maximize development of much-needed housing in the City of Brentwood, providing for a diversity of housing types to suit the demands of homebuyers with different socioeconomic statuses on a site that is close to main transportation corridors (e.g., SR 4) and which may be practically and efficiently connected to existing infrastructure, and which otherwise can be practically developed to facilitate achievement of state housing goals.
2. Provide parks and open space for residences in the region, in close proximity to project housing in order to minimize vehicle mile trips and associated air emissions.
3. Facilitate the extension of a portion of Sand Creek Road to the project entrance, which will help fulfill a critical need for the City of Brentwood and the region and Planning Area 1 to the north of the site.

Impacts Identified in the REIR

In addition to attaining the majority of project objectives, reasonable alternatives to the project must be capable of reducing the magnitude of, or avoiding, identified significant environmental impacts of the proposed project. The significance level of impacts identified in the REIR are presented below.

Less Than Significant or No Impact

As discussed within each respective section of this REIR, the proposed project would result in no impact, a less-than-significant impact, or a less than cumulatively considerable contribution to a significant cumulative impact related to the following topics associated with the resource areas indicated, and mitigation would not be required:

- ***Air Quality, Greenhouse Gas Emissions, and Energy***
  - Conflict with or obstruct implementation of the applicable air quality plan during project construction.
  - Conflict with or obstruct implementation of the applicable air quality plan during project operation.
  - Expose sensitive receptors to substantial pollutant concentrations.
  - Result in other emissions (such as those leading to odors) affecting a substantial number of people.
  - Result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency.
  - Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
  - Result in a cumulatively considerable inefficient or wasteful use of energy or conflict with a State or local plan for renewable energy or energy inefficiency.

- ***Biological Resources***
  - Impacts to special-status plant species either directly (e.g., threaten to eliminate a plant community) or through substantial habitat modifications.
  - Impacts to California tiger salamander either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications.
  - Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
  - Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
  - Cumulative loss of habitat for special-status species.

- ***Hazards and Hazardous Materials***
  - Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
  - Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
  - Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
  - For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area.

  - Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
  - Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires.
  - Cumulative exposure to potential hazards and increases in the transport, storage, and use of hazardous materials.

- ***Noise***
  - Generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
  - For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.
  - Generation of a substantial permanent increase in ambient noise levels associated with cumulative development of the proposed project in combination with future buildout of the General Plan.

- ***Transportation***
  - Conflict with a program, plan, ordinance or policy addressing the circulation system during operations.
  - Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) or result in inadequate emergency access.
  - Result in cumulative conflicts or inconsistencies with CEQA Guidelines Section 15064.3, subdivision (b).

The Initial Study prepared for the proposed project (see Appendix C) includes a detailed environmental checklist addressing a range of technical environmental issues. For each technical environmental issue, the Initial Study identifies the level of impact for the proposed project. The Initial Study identifies the environmental effects as either “no impact,” “less-than-significant,” “less-than-significant with mitigation incorporated,” or “potentially significant.” Impacts identified for the proposed project in the Initial Study as “no impact” or “less-than-significant” or “less-than-significant with mitigation incorporated” are listed below, and summarized further in Chapter 5, Effects Not Found to be Significant, of this EIR.

- Aesthetics (Items a and b);
- Agriculture and Forest Resources (Items b, c, and d);
- Cultural Resources (Item a);
- Geology and Soils (Item e);
- Hydrology and Water Quality (Items b, civ, d, and e);
- Land Use and Planning (All items);
- Mineral Resources (All Items);
- Population and Housing (All Items);
- Public Services (Items d and e);
- Recreation (All Items);
- Utilities and Service Systems (All Items); and
- Wildfire (All Items).

The alternatives discussed herein have been chosen based on feasibility to meet project objectives, as well as the ability to reduce potential impacts analyzed within this REIR. Impacts identified and fully mitigated in the Initial Study prepared for the proposed project would be similar or fewer for all of the alternatives included in this chapter. Accordingly, topics dismissed within the Initial Study prepared for the proposed project are not specifically addressed within the sections below. Rather, this chapter focuses on those resource areas and specific impacts listed below that have been identified for the proposed project as requiring mitigation to reduce significant impacts to less than significant, or have been found to remain significant and unavoidable.

Less Than Significant with Mitigation

Significant environmental impacts of the proposed project that have been identified as requiring mitigation measures to ensure that the level of significance is ultimately less than significant include the following:

- ***Air Quality, Greenhouse Gas Emissions, and Energy:*** The REIR determined that implementation of the proposed project could result in a significant impact related to generating greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment, or conflicting with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. However, the REIR requires mitigation in order to ensure that the aforementioned impact is reduced to a less-than-significant level.

- ***Biological Resources.*** The REIR determined that implementation of the proposed project could result in a significant impact to California red-legged frog (CRLF), Swainson's hawk, golden eagle, burrowing owl, San Joaquin kit fox, white-tailed kite, tricolored blackbird, and nesting birds and raptors protected under the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC) either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. In addition, the REIR determined that the proposed project could have a significant impact related to having a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS), as well as having a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Similarly, the REIR determined that the proposed project could conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan, and a significant impact could occur. The REIR requires mitigation in order to ensure that all of the aforementioned impacts related to biological resources would be reduced to less-than-significant levels.

- ***Hazards and Hazardous Materials.*** The REIR determined that the proposed project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, and a significant impact could occur. The REIR requires

mitigation in order to ensure that the aforementioned impact related to hazards and hazardous materials would be reduced to a less-than-significant level.

- ***Noise.*** The REIR determined that the proposed project could result in a significant impact related to the generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. In addition, the proposed project could result in a significant impact related to the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. The REIR requires mitigation in order to ensure that the aforementioned impacts related to noise would be reduced to a less-than-significant level.

- ***Transportation:*** The REIR determined that implementation of the proposed project could conflict with a program, plan, ordinance, or policy addressing the circulation system during construction activities, as well as conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b), and a significant impact could occur. The REIR requires mitigation in order to ensure that the aforementioned impacts are reduced to less-than-significant levels.

The Initial Study prepared for the proposed project (see Appendix C) includes a detailed environmental checklist addressing a range of technical environmental issues. For each technical environmental issue, the Initial Study identifies the level of impact for the proposed project. Impacts identified for the proposed project in the Initial Study as "less-than-significant with mitigation incorporated" are listed below, and summarized further in Chapter 5, Effects Not Found to be Significant, of this EIR.

- Aesthetics (c);
- Agriculture and Forest Resources (Items a and e);
- Cultural Resources (Items b and c);
- Geology and Soils (Items a through d, and f);
- Hydrology and Water Quality (Items a and ci through ciii);
- Public Services (Items a through c); and
- Tribal Cultural Resources (All Items).

7.3 SELECTION OF ALTERNATIVES

The requirement that an EIR evaluate alternatives to the proposed project or alternatives to the location of the proposed project is a broad one; the primary intent of the alternatives analysis is to disclose other ways that the objectives of the project could be attained, while reducing the magnitude of, or avoiding, one or more of the significant environmental impacts of the proposed project. Alternatives that are included and evaluated in the EIR must be feasible alternatives. However, the CEQA Guidelines require the EIR to "set forth only those alternatives necessary to permit a reasoned choice." As stated in Section 15126.6(a), an EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. The CEQA Guidelines provide a definition for "a range of reasonable alternatives" and thus limit the number and type of alternatives that may need to be evaluated in a given EIR. According to the CEQA Guidelines Section 15126.6(f):

> The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determined could feasibly attain most of the basic objectives of the project.

First and foremost, alternatives in an EIR must be feasible. In the context of CEQA Guidelines Section 21061.1, "feasible" is defined as:

> ...capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

Finally, an EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative."

Alternatives Considered But Dismissed From Further Analysis

Consistent with CEQA, primary consideration was given to alternatives that could reduce significant impacts, while still meeting most of the basic project objectives.

As stated in Guidelines Section 15126.6(c), among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are:

(i) failure to meet most of the basic project objectives,
(ii) infeasibility, or
(iii) inability to avoid significant environmental impacts.

Regarding item (ii), infeasibility, among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). None of these factors individually establish a fixed limit on the scope of reasonable alternatives.

Off-Site Alternative

As noted previously, the purpose of an alternatives analysis is to develop alternatives to the proposed project that substantially lessen at least one of the significant environmental effects identified as a result of the project, while still meeting most, if not all, of the basic project objectives. Development of the proposed project at an off-site location would not be capable of meeting the majority of project objectives due to a number of the project objectives being specific to the project site location. Furthermore, the CEQA Guidelines (Section 15126.6[b]) requires that only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the REIR. An Off-Site Alternative would involve the construction of the proposed project on an alternative location. An Off-Site Alternative would have the same type and intensity of uses as the proposed project. In addition, the project site is located adjacent to SR 4, thereby reducing traffic volumes routed through city streets within the project area. Consequently, development of an Off-Site Alternative would be expected to result in at least the same, if not greater, level of impacts as compared to the proposed project. Furthermore, the Applicant does not own an alternative location that would be adequate to construct the proposed project.

It is also important to consider that the project site is located in an area served by existing regional infrastructure and arterial roadways, and is located adjacent to existing urban development in the City of Brentwood, as well as existing and planned urban areas within the City of Antioch. Overall, a feasible off-site location that would meet the requirements of CEQA, as well as meet the basic objectives of the proposed project, does not exist. Therefore, an Off-Site Alternative was dismissed from detailed analysis within this REIR.

Reduced Intensity Alternative

A Reduced Intensity Alternative would result in a 50 percent reduction in development within the project site. As such, 143 residences would be developed within a 30.98-acre portion of the project site, and 4.7 acres of parks would be developed on-site. The remaining site acreage would be left as undeveloped open space. As such, while the residential density of the development footprint under the Reduced Intensity Alternative would be similar to the proposed project, when the overall acreage of the project site is taken into account, the Alternative would result in a significantly lower residential density as compared to the proposed project.

Senate Bill (SB) 330 prohibits local jurisdictions from changing the land use designation of a parcel designated for residential use unless an equivalent amount of land is redesignated for residential use elsewhere within the City's boundaries. As a result, the remaining site acreage that would not be developed with residential uses as part of this project would be required to retain a residential General Plan land use designation (and would likely be built out in the future with residential uses similar to the proposed project), or other undeveloped land within the City would be required to undergo a General Plan Amendment to change the land use designation to either residential, or a higher density residential land use designation than the existing designation, to account for the loss of potential housing within the project site.

The alternatives considered in this REIR consist of different development scenarios that provide a meaningful comparison to the proposed project. As described below, this REIR includes an evaluation of a Clustered Development Alternative, which would include a decrease in overall development area, while still developing on-site dwelling units within the range allowed by the City's General Plan. Overall, impacts would be similar to that of the Clustered Development Alternative that is discussed below. Because the Clustered Development Alternative meets the same intent as a reduced intensity alternative, only the Clustered Development Alternative has been evaluated in this REIR.

Subarea C Alternative

The project site is currently zoned Planned Development-36 (PD-36) by the City of Brentwood. According to Chapter 17.486 of the City's Municipal Code, the PD-36 zone includes five subareas (A through E), which each have established permitted and conditionally permitted uses, and general development standards. According to Section 17.486.004, Subarea C of the PD-36 zone allows for single-family residential uses with a 5,000-square foot (sf) minimum lot size. Under the Subarea C Alternative, the proposed project would be built consistent with the development standards established within Section 17.486.004, Subarea C of the PD-36 zone. The proposed project would include subdivision of the project site to construct 286 single-family homes on lots ranging from 4,500 to 15,863 sf. Due to the slight increase in lot size that would be required under the Subarea C Alternative, the alternative would likely result in the loss of a number of lots in order to allow for the additional square footage of each lot.

Nonetheless, because the alternative would include the same development area as the proposed project, the alternative would likely result in impacts that are similar to that of the proposed project. For example, the alternative would still include grading of 92.96 acres of land for a single-family residential development, which would result in similar air quality impacts during construction of the alternative. In addition, the alternative would include development near the existing Sand Creek corridor. Thus, impacts to biological resources would be similar to that of the proposed project. Furthermore, the alternative would include a similar number of residential units, which would likely result in similar impacts related to transportation and noise, and given that the same area of disturbance would occur under the Subarea C Alternative, impacts related to hazards and hazardous materials would likely be similar as well.

CEQA Guidelines state that the primary intent of an alternative is to reduce one or more of the significant environmental impacts of the proposed project. Overall, impacts would be similar to that of the proposed project. Therefore, the Alternative would not achieve the intent of a feasible alternative under CEQA, and the Subarea C Alternative is dismissed from detailed evaluation.

7.4 ALTERNATIVES CONSIDERED IN THIS REIR

The following alternatives are considered and evaluated in this section:

- No Project (No Build) Alternative;
- Clustered Development Alternative; and
- Reduced Density Alternative.

Each of the project alternatives is described in detail below, with a corresponding analysis of each alternative's impacts in comparison to the proposed project. While an effort has been made to include quantitative data for certain analytical topics, where possible, qualitative comparisons of the various alternatives to the project are primarily provided. Such an approach to the analysis is appropriate as evidenced by CEQA Guidelines Section 15126.6(d), which states that the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed. The analysis evaluates impacts that would occur with the alternatives relative to the significant impacts identified for the proposed project. When comparing the potential impacts resulting from implementation of the foregoing alternatives, the following terminology is used:

- "Fewer" = Less than Proposed Project;
- "Similar" = Similar to Proposed Project; and
- "Greater" = Greater than Proposed Project.

When the term "fewer" is used, the reader should not necessarily equate this to elimination of significant impacts identified for the proposed project. For example, in many cases, an alternative would reduce the relative intensity of a significant impact identified for the proposed project, but the impact would still be expected to remain significant under the alternative, thereby requiring mitigation. In other cases, the use of the term "fewer" may mean the actual elimination of an impact identified for the proposed project altogether. Similarly, use of the term "greater" does not necessarily imply that an alternative would require additional mitigation beyond what has been required for the proposed project. To the extent possible, this analysis will distinguish between the two implications of the comparative words "fewer" and "greater".

A comparison of the environmental impacts resulting from the considered alternatives and the proposed project is provided in Table 7-2.

No Project (No Build) Alternative

CEQA requires the evaluation of the comparative impacts of the "No Project" alternative (CEQA Guidelines Section 15126.6[e]). Analysis of the no project alternative shall:

> "… discuss […] existing conditions […] as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." (*Id.*, subd. [e][2]) "If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the 'no project' alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in the property's existing state versus environmental effects that would occur if the project were approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this 'no project' consequence should be discussed. In certain instances, the no project alternative means 'no build,' wherein the existing environmental setting is maintained. However, where failure to proceed with the project would not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment." (*Id.*, subd. [e][3][B]).

The City has decided to evaluate a No Project (No Build) Alternative, which assumes that the current conditions of the project site would remain, and the site would not be developed. As described in this REIR, the project site consists primarily of undeveloped grassland and weedy vegetation, with Sand Creek flowing west to east through the northern portion of the project site. The extension of Sand Creek Road in the project vicinity would move forward consistent with the Sand Creek Roadway Extension Project Initial Study/Mitigated Negative Declaration. The No Project (No Build) Alternative would not meet any of the project objectives and would not meet the overall intent of the General Plan land use designations for the site.

Air Quality, Greenhouse Gas Emissions, and Energy

Because the No Project (No Build) Alternative would not involve construction activities, the Alternative would not result in construction or operational emissions. The Alternative would not include development of the residential units or parkland. While the separate City-initiated capital improvement project constructing Sand Creek Road from the westerly existing terminus at SR 4 to Heidorn Ranch Road would still occur under the No Project (No Build) Alternative, impacts related to such development would not be associated with the proposed project, and would be analyzed separately. Thus, the impacts identified for the proposed project related to air quality would not occur under the No Project (No Build) Alternative, and Mitigation Measures 4.1-6(a) and 4.1-6(b) would not be required. Overall, related to Air Quality, Greenhouse Gas Emissions, and Energy would not occur under the No Project (No Build) Alternative.

Biological Resources

Under the No Project (No Build) Alternative, construction activities, including ground disturbance, would not occur on the project site. As such, the Alternative would not have the potential to impact CRLF, Swainson's hawk, golden eagle, burrowing owl, San Joaquin kit fox, white-tailed kite, tricolored blackbird, and other birds protected under the MBTA. In addition, the Alternative would not result in any substantial adverse effects on riparian habitat and/or other sensitive natural

communities and/or have a substantial adverse effect on federal or State protected aquatic resources, and would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Furthermore, the No Project (No Build) Alternative would not conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan. As such, none of the mitigation measures related to biological resources required for the proposed project would be required under the Alternative. Overall, the impacts identified for the proposed project related to biological resources would not occur under the No Project (No Build) Alternative.

Hazards and Hazardous Materials

Under the No Project (No Build) Alternative, the project site would remain in its current condition. Therefore, ground disturbance would not occur under the No Project (No Build) Alternative, and Mitigation Measures 4.3-2(a) through 4.3-2(d), which ensure sufficient set-backs from and/or removal of existing on-site abandoned oil wells, oil pipelines, and wells, would not be required. As such, the Alternative's impacts related to hazards and hazardous materials would be fewer as compared to the proposed project.

Noise

The No Project (No Build) Alternative would consist of the continuation of the existing conditions of the project site. Because the No Project (No Build) Alternative would not introduce any new development on-site and construction would not occur, new temporary or permanent noise and groundborne vibration sources would not be generated on-site. Therefore, none of the mitigation measures related to noise impacts required for the proposed project would be required under the Alternative, and impacts related to noise would not occur.

Transportation

The No Project (No Build) Alternative would not generate construction traffic or operational vehicle traffic on local roadways and, thus, Mitigation Measure 4.5-1 related to preparation of a Construction Traffic Management Plan (CTMP) would not be required. In addition, because new residents would not be located on the project site, the Alternative would not contribute to an increase in vehicle miles traveled (VMT), and Mitigation Measure 4.5-3, which requires the revision of the site plan to include an additional intersection, would not be required. Overall, the impacts identified for the proposed project related to transportation would not occur under the No Project (No Build) Alternative.

Clustered Development Alternative

The Clustered Development Alternative would be designed to reduce the total amount of proposed development acreage, while still resulting in a residential density within the allowable range presented in the City's General Plan. According to the City's General Plan, the R-LD land use designation permits a density range of 1.1 to five dwelling units per acre (du/ac), with a mid-range of three du/ac. The proposed project is anticipated to result in the development of 286 units on 61.961 acres, which would result in a density of approximately 4.62 du/ac. If 61.961 acres of the project site were to be developed using the mid-range of three du/ac, a total of 186 units would be anticipated. However, in order to cluster the development and increase the amount of open space on-site, while still keeping in the range of allowed density, under the Clustered Development Alternative 186 units would be built on 37.2 acres, which would result in a density of five du/ac, the maximum allowable density within the R-LD land use designation.

As a result, the Clustered Development Alternative would include an additional 24.76 acres to be designated as permanent open space. The additional permanent open space would be located along the eastern portion of the site to allow for a buffer between the proposed residences and SR 4. Table 7-1 provides a comparison of the development acreages between the Alternative and the proposed project.

Table 7-1
Clustered Development Alternative Development Comparison[1]

	Single-Family	Permanent Open Space	Park
Proposed Project	286 units	25 acres	9.39 acres
Alternative	186 units[2]	49.76 acres	9.39 acres

[1] In both the proposed project and alternative scenarios, the 33.9 acres of land located north of the future Sand Creek Road extension and designated for Regional Commercial uses by the General Plan would remain undeveloped.

[2] According to the Brentwood General Plan, the R-LD general plan land use designation permits a maximum density of 5.0 units per gross acres (5.0 x 37.2 = 186 units).

Generally, all other site improvements required under the proposed project would still be developed under the Clustered Development Alternative, and the Alternative would still require a potential Rezone to amend the PD-36 Zoning District, Vesting Tentative Subdivision Map, and design Review. In addition, because the Clustered Development Alternative would generally result in similar development of the proposed project, all project objectives would be met.

Air Quality, Greenhouse Gas Emissions, and Energy

Under the Clustered Development Alternative, a total of 49.76 acres of the project site would be preserved as open space, which would be 24.76 more acres of open space than the proposed project. In addition, the Alternative would involve the construction of 100 fewer residential units than the proposed project. As such, buildout of the Clustered Development Alternative would reduce the amount of ground disturbance as compared to the proposed project, thereby reducing air quality, GHG, and energy impacts related to project construction. Furthermore, due to the reduced number of project residents, operational impacts would also be reduced as compared to the proposed project. However, with regard to the Bay Area Air Quality Management District's (BAAQMD's) Buildings and Transportation criterion a., the project applicant has not yet committed to the prohibition of natural gas infrastructure in the proposed project design. Because the design of the Clustered Development Alternative does not currently include the prohibition of natural gas infrastructure, Mitigation Measures 4.1-6(a) and (b) would still be required to ensure that natural gas shall be prohibited, and that impacts related to generating GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflicting with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, are reduced to a less-than-significant level. Because the Clustered Development Alternative would result in a reduction of air pollutants and GHG emissions generated through construction and operation of the proposed project, the Alternative's impacts related to air quality, GHGs, and energy would be fewer than the proposed project.

Biological Resources

As stated above, the Clustered Development Alternative would designate 24.76 acres located in the eastern portion of the project site as open space. As such, because the Alternative would result in a reduced area of disturbance as compared to the proposed project, impacts to biological



resources would generally be reduced. However, preservation of open space in the eastern portion of the project site would not result in the avoidance of any on-site features such as special-status species habitats or wetlands. As such, similar to the proposed project, the Clustered Development Alternative would have the potential to result in adverse impacts to CRLF, Swainson's hawk, golden eagle, burrowing owl, San Joaquin kit fox, white-tailed kite, tricolored blackbird, and other birds protected under the MBTA. In addition, the Alternative could result in substantial adverse effects on riparian habitat and/or other sensitive natural communities and/or have a substantial adverse effect on federal or State protected aquatic resources. Furthermore, similar to the proposed project, the Clustered Development Alternative would be subject to applicable East Contra Costa County (ECCC) HCP/NCCP Section 6.4.3 Species-Level Measures and Conservation Measures, which would ensure that all potential impacts to potentially affected species, land covers, and wetlands would be reduced to a less-than-significant level. However, without compliance with all applicable provisions of the ECCC HCP/NCCP, the Alternative would result in a significant impact. Therefore, the Clustered Development Alternative would have the potential to conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan. As such, all of the mitigation measures related to biological resources required for the proposed project would also be required under the Alternative. Overall, the impacts identified for the proposed project related to biological resources would be similar under the Clustered Development Alternative.

Hazards and Hazardous Materials

Although the Clustered Development Alternative would result in a smaller area of disturbance than the proposed project, clustering development in the western portion of the project site would not substantially avoid any of the existing on-site abandoned oil wells, oil pipelines, and wells. As such, the Alternative could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, and a significant impact could occur. Therefore, implementation of Mitigation Measures 4.3-2(a) through 4.3-2(d), which ensure sufficient set-backs from and/or removal of existing on-site abandoned oil wells, oil pipelines, and wells, would still be required. Overall, the impacts identified for the proposed project related to hazards and hazardous materials would be similar under the Clustered Development Alternative.

Noise

Because the Clustered Development Alternative would result in a smaller area of disturbance and would include the construction of fewer residential units as compared to the proposed project, the duration of construction activities would be shorter than the proposed project, and noise and groundborne generation related to construction of the Alternative would be reduced as compared to the proposed project. However, clustering the proposed residences in the western portion of the project site would not increase the distance between the proposed development and the nearest noise-sensitive receptors, which are the single-family residences located at the end of La Sata Drive, approximately 20 feet south of the project site. As such, implementation of the Clustered Development Alternative could result in the generation of a substantial temporary increase in ambient noise levels in the vicinity of the site in excess of standards established in the local general plan or noise ordinance, and implementation of Mitigation Measure 4.4-1 would still be required. Similarly, the Clustered Development Alternative could result in the generation of excessive groundborne vibration or groundborne noise levels, and implementation of Mitigation Measure 4.4-3 would still be required. Overall, from a CEQA perspective, the impacts identified for the proposed project related to noise would be similar under the Clustered Development Alternative. However, it is noted that, with regard to impacts of the existing environment onto a

project, the Clustered Development Alternative would reduce noise impacts upon residents from SR 4 and would result in a reduction in sound wall height.

Transportation

Similar to the proposed project, the Clustered Development Alternative would add construction vehicle traffic to area roadways, thereby potentially conflicting with existing traffic patterns. As such, Mitigation Measure 4.5-1 related to preparation of a CTMP would still be required. However, because the Alternative would involve the development of 100 fewer residential units and 24.76 fewer acres as compared to the proposed project, the overall duration of construction traffic, and associated impacts, would be reduced.

Given that the Clustered Development Alternative would reduce the overall development area and number of residential units, associated operation vehicle trips would likely be fewer. The number of drive aisles and parking areas would be significantly reduced, and, thus, would result in fewer trips on- and off-site. Based on vehicle trip generation rates provided in the Traffic Impact Study (TIS) prepared for the proposed project by Abrams Associates Traffic Engineers, Inc., the applicable rate for the proposed single-family residential units is 9.43 daily trips per unit.[1] The 286 units associated with the proposed project would result in a total of 2,697 daily trips; by comparison, the Clustered Development Alternative would involve the development of 186 units, which would result in the generation of 1,754 daily trips. Because the Alternative would generate fewer daily trips than the proposed project, impacts related to VMT could be reduced. However, because the proposed use under the Clustered Development Alternative would still be residential, the trip generation rates used for the analysis of the proposed project would still be applicable; as such, the Alternative would result in the same VMT per capita as the proposed project. In addition, because a final site plan has not been established for the Clustered Development Alternative, a conclusive determination of whether an increase in intersection density would result in a reduction in VMT cannot be reached. Therefore, implementation of mitigation would still be required for the Clustered Development Alternative. Overall, because the Clustered Development Alternative would result in a reduction in construction and operational traffic as compared to the proposed project, development of the Clustered Development Alternative would result in fewer impacts related to transportation compared to the proposed project.

Reduced Density Alternative

According to the City's General Plan, the R-LD land use designation permits a density range of 1.1 to five du/ac, with a mid-range of three du/ac. The proposed project is anticipated to result in the development of 286 units on 61.961 acres, which would result in a density of approximately 4.62 du/ac. The Reduced Density Alternative would result in the development of single-family residential uses on the same amount of acreage as the proposed project (61.961 acres), at the minimum density allowed for the R-LD land use designation. As a result, the Reduced Density Alternative would develop a total of 68 dwelling units on-site.

Generally, all other site improvements required under the proposed project would still be developed under the Reduced Density Alternative, including the development of 9.39 acres of parks and 25 acres of open space. As such, the Alternative would still require a potential Rezone to amend the PD-36 Zoning District, Vesting Tentative Subdivision Map, and Design Review.

[1] Abrams Associates Traffic Engineering, Inc. *Review of Changes to the Trip Generation and Potential Traffic Impacts Resulting from Revision of 2020 Bridle Gate Project (VTM 9586) to include only Single-Family Homes.* February 15, 2022.

Because the Reduced Density Alternative would still provide parks and open space in the region, and would facilitate the extension of a portion of Sand Creek Road, Project Objectives #2 and #3 would be fully met under the Alternative. However, although the Reduced Density Alternative would result in the development on-site, because development would be at a reduced density as compared to the proposed project, the Alternative would not maximize development of housing, and Project Objective #1 would only be partially met.

Air Quality, Greenhouse Gas Emissions, and Energy

Because the Reduced Density Alternative would involve the same area of disturbance as the proposed project, impacts related to ground disturbance during construction would be similar to the proposed project. However, because the Alternative would result in the development of 218 fewer residential units than the proposed project, impacts related to building construction would be reduced as compared to the proposed project. In addition, due to the reduced number of project residents, operational impacts would also be reduced as compared to the proposed project. However, with regard to BAAQMD's Buildings and Transportation criterion a., the project applicant has not yet committed to the prohibition of natural gas infrastructure in the proposed project design. Because the design of the Reduced Density Alternative does not currently include the prohibition of natural gas infrastructure, Mitigation Measures 4.1-6(a) and (b) would still be required to ensure that natural gas shall be prohibited, and that impacts related to generating GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflicting with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, are reduced to a less-than-significant level. Because the Reduced Density Alternative would result in a reduction of air pollutants and GHG emissions generated through construction and operation of the proposed project, the Alternative's impacts related to air quality, GHGs, and energy would be fewer than the proposed project.

Biological Resources

As stated above, the Reduced Density Alternative would result in a similar area of disturbance as the proposed project. As such, similar to the proposed project, the Reduced Density Alternative would have the potential to result in adverse impacts to CRLF, Swainson's hawk, golden eagle, burrowing owl, San Joaquin kit fox, white-tailed kite, tricolored blackbird, and other birds protected under the MBTA. In addition, the Alternative could result in substantial adverse effects on riparian habitat and/or other sensitive natural communities and/or have a substantial adverse effect on federal or State protected aquatic resources. Furthermore, the Reduced Density Alternative would have the potential to conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan. As such, all of the mitigation measures related to biological resources required for the proposed project would also be required under the Alternative. Overall, the impacts identified for the proposed project related to biological resources would be similar under the Reduced Density Alternative.

Hazards and Hazardous Materials

Because the Reduced Density Alternative would result in a similar area of disturbance as compared to the proposed project, buildout of the Alternative would not avoid any of the existing on-site abandoned oil wells, oil pipelines, and wells. As such, the Alternative could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, and a significant impact could occur. Although the Reduced Density Alternative would involve larger lot sizes than the proposed project, which would make meeting the required setbacks from on-site wells and pipelines easier, implementation of Mitigation Measures 4.3-2(a) through 4.3-2(d),



which ensure sufficient set-backs from and/or removal of existing on-site abandoned oil wells, oil pipelines, and wells, would still be required. Overall, the impacts identified for the proposed project related to hazards and hazardous materials would be similar under the Reduced Density Alternative.

Noise

Because the Reduced Density Alternative would include the construction of fewer residential units as compared to the proposed project, noise and groundborne generation related to construction of the Alternative would be reduced as compared to the proposed project. However, without the provision of final site plans, the determination of whether the proposed buildings would be located further from the nearest noise-sensitive receptors, as compared to the proposed project, cannot be made. As such, implementation of the Reduced Density Alternative could result in the generation of a substantial temporary increase in ambient noise levels in the vicinity of the site in excess of standards established in the local general plan or noise ordinance, and implementation of Mitigation Measure 4.4-1 would still be required. Similarly, the Reduced Density Alternative could result in the generation of excessive groundborne vibration or groundborne noise levels, and implementation of Mitigation Measure 4.4-3 would still be required. Overall, the impacts identified for the proposed project related to noise would be similar under the Reduced Density Alternative.

Transportation

Similar to the proposed project, the Reduced Density Alternative would add construction vehicle traffic to area roadways, thereby potentially conflicting with existing traffic patterns. As such, Mitigation Measure 4.2-1 related to preparation of a CTMP would still be required. Although the Reduced Density Alternative would involve a similar area of disturbance as the proposed project, because the Alternative would involve the development of 218 fewer residential units as compared to the proposed project, the overall duration of construction traffic, and associated impacts, would be reduced.

Given that the Reduced Density Alternative would reduce the number of residential units, associated operation vehicle trips would likely be fewer. The number of drive aisles and parking areas would be significantly reduced, and, thus, would result in fewer trips on- and off-site. Using the applicable rate of 9.43 daily trips per unit, the Reduced Density Alternative would generate approximately 641 daily trips. As stated above, the 286 units associated with the proposed project would result in a total of 2,697 daily trips. Because the Alternative would generate fewer daily trips than the proposed project, impacts related to VMT could be reduced. However, because the proposed use under the Reduced Density Alternative would still be residential, the trip generation rates used for the analysis of the proposed project would still be applicable; as such, the Alternative would result in the same VMT per capita as the proposed project. In addition, because a final site plan has not been established for the Reduced Density Alternative, a conclusive determination of whether an increase in intersection density would result in a reduction in VMT cannot be reached. Therefore, implementation of mitigation would still be required for the Reduced Density Alternative. Overall, because the Clustered Development Alternative would result in a reduction in construction and operational traffic as compared to the proposed project, development of the Reduced Density Alternative would result in fewer impacts related to transportation compared to the proposed project.

7.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. Section 15126(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." In this case, the No Project (No Build) Alternative would be considered the environmentally superior alternative, because the project site is assumed to remain in its current condition under the alternative. Consequently, many of the impacts resulting from the proposed project would not occur under the Alternative, as shown in Table 7-2 below.

As noted above, the No Project (No Build) Alternative would not meet any of the project objectives. The Clustered Development Alternative would fully meet all of the project objectives. The Reduced Density Alternative would fully meet two of the project objectives and partially meet 1 of the objectives.

As discussed throughout this chapter and shown in Table 7-2, both the Clustered Development Alternative and the Reduced Density Alternative would result in similar impacts than the proposed project related to three of the five issue areas for which project impacts were identified, and both would result in fewer impacts than the proposed project for the remaining two issue areas. Although both Alternatives would result in similar impacts in comparison to the proposed project, the Clustered Development Alternative would fully meet all of the project objectives, whereas the Reduced Density Alternative would only partially meet Project Objective #1. Thus, the Clustered Development Alternative would be considered the environmentally superior alternative to the proposed project.

Table 7-2
Comparison of Environmental Impacts for Project Alternatives

Resource Area	Proposed Project	No Project (No Build) Alternative	Clustered Development Alternative	Reduced Density Alternative
Air Quality, Greenhouse Gas Emissions, and Energy	Less-Than-Significant with Mitigation	None	Fewer	Fewer
Biological Resources	Less-Than-Significant with Mitigation	None	Similar	Similar
Hazards and Hazardous Materials	Less-Than-Significant with Mitigation	Fewer	Similar	Similar
Noise	Less-Than-Significant with Mitigation	None	Similar	Similar
Transportation	Less-Than-Significant with Mitigation	None	Fewer	Fewer
	Total No Impact:	**4**	**0**	**0**
	Total Fewer:	**1**	**1**	**1**
	Total Similar:	**0**	**3**	**3**

Note: No Impact = "None;" Less than Proposed Project = "Fewer;" and Similar to Proposed Project = "Similar"

8. EIR Authors and Persons Consulted

8. REIR AUTHORS AND PERSONS CONSULTED

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Ric Windmiller	Archeologist
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9. References

9. REFERENCES

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Appendix A

DATE: December 29, 2022

TO: Responsible Agencies, Trustee Agencies, and Interested Persons

FROM: Erik Nolthenius, Planning Manager, City of Brentwood

SUBJECT: NOTICE OF PREPRARATION OF A REVISED ENVIRONMENTAL IMPACT REPORT FOR THE PROPOSED BRIDLE GATE PROJECT

The City of Brentwood is the lead agency for the preparation of a Revised Environmental Impact Report (REIR) for the Bridle Gate project (proposed project). The scope of the REIR has been proposed based on a determination by the City of Brentwood. The City of Brentwood has directed the preparation of a REIR in compliance with the California Environmental Quality Act (CEQA).

Once a decision is made to prepare a REIR, the lead agency must prepare a Notice of Preparation (NOP) to inform all responsible and trustee agencies that a REIR will be prepared (CEQA Guidelines Section 15082). The purpose of the NOP is to provide agencies with sufficient information describing both the proposed project and the potential environmental effects to enable the agencies to make a meaningful response as to the scope and content of the information to be included in the REIR. The City of Brentwood is also soliciting comments on the scope of the REIR from interested persons.

SCOPING MEETING

A NOP scoping meeting will be held in person and virtually via Zoom to inform interested parties about the proposed project, and to provide agencies and the public with an opportunity to provide comments on the scope and content of the REIR. Further information on the date and time of the scoping meeting is provided below.

REIR Scoping Meeting on the Bridle Gate Project
Tuesday | January 17, 2023 | 7:00 PM

In-Person Meeting:
City of Brentwood Council Chambers
150 City Park Way
Brentwood, CA 94513

or

Virtual Meeting:
Zoom: https://www.brentwoodca.gov/planningmeetingonline
Phone: 1-669-444-9171 | Webinar ID: 865 8637 2302

PROJECT BACKGROUND

On June 6, 2006, the City of Brentwood Planning Commission approved the first version of the Bridle Gate subdivision map. Commensurate with that approval, an IS/MND was adopted, which identified that all impacts resulting from the project could be reduced to a less-than-significant level with implementation of mitigation measures.

A revised version of the Bridle Gate Project was later proposed, and due to substantial changes to the project, an EIR was prepared in 2020. However, the City Council denied the project on March 9, 2021, and the EIR was not certified.

A third application for the project was submitted to the City of Brentwood in late 2021 and was deemed complete in June 2022. The City has determined that a REIR is the appropriate CEQA document for the current version of the Bridle Gate Project. A description of the revised Bridle Gate Project is discussed in further detail below.

PROJECT DESCRIPTION

The following provides a description of the project site's current environmental setting, as well as the discretionary actions required for the proposed project and the proposed project components.

Project Location and Setting

The project site consists of two parcels totaling approximately 126.81 acres (including the future right-of-way [ROW] for the Sand Creek Road extension) in the City of Brentwood (see Figure 1 and Figure 2) and is identified by the Contra Costa County Assessor's Parcel Numbers (APNs) 019-082-009 and 019-082-010. The project site is bounded by Old Sand Creek Road to the north, State Route (SR) 4 to the east, a single-family residential development (Brentwood Hills) to the south, and the edge of the Brentwood Planning Area and the City of Antioch's city limits to the west. A small segment of existing San Jose Avenue bounds the project site at its farthest southeastern corner. The western terminus of Sand Creek Road, constructed as part of the interchange with SR 4, is located adjacent to the eastern site boundary. According to the City's General Plan, the project site is designated Regional Commercial (RC) north of the Sand Creek Road alignment, Residential-Low Density (R-LD) south of the Sand Creek Road alignment, Permanent Open Space (P-OS) along the southwest boundary of the site, and Park (P) (see Figure 3). The site is zoned Planned Development No. 36 (PD-36). Sand Creek flows west to east through the northern portion of the project site and supports both native riparian vegetation and a variety of planted ornamentals. The remainder of the project site is currently vacant and covered with grasses and weedy vegetation.

According to the USGS Brentwood Quadrangle, the project site is located within the Brentwood Oil and Gas Field. Based on Phase I and Phase II Environmental Site Assessments prepared for the proposed project by ENGEO, Inc., the project site previously contained seven active oil production wells and an oil tank farm that facilitated oil production and waste treatment.[1] In addition, the site previously contained 24 active groundwater monitoring wells. The oil wells, tank farm, groundwater monitoring wells, and associated facilities have all been properly abandoned under the oversight of the California Regional Water Quality Control Board (RWQCB).

[1] ENGEO, Inc. *Phase One Environmental Site Assessment, Bridle Gate, Brentwood, California.* May 6, 2020.

Figure 1
Regional Project Location

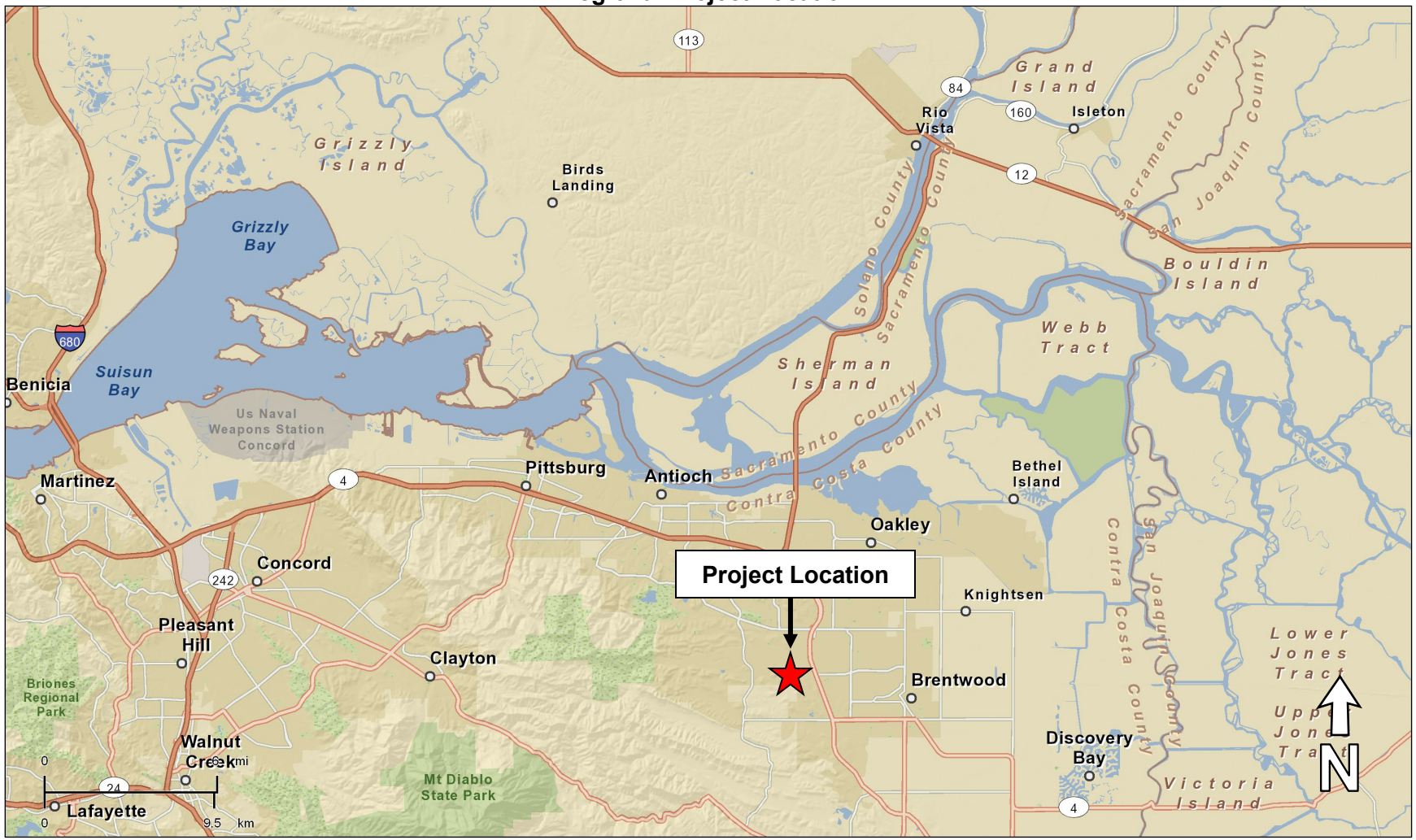
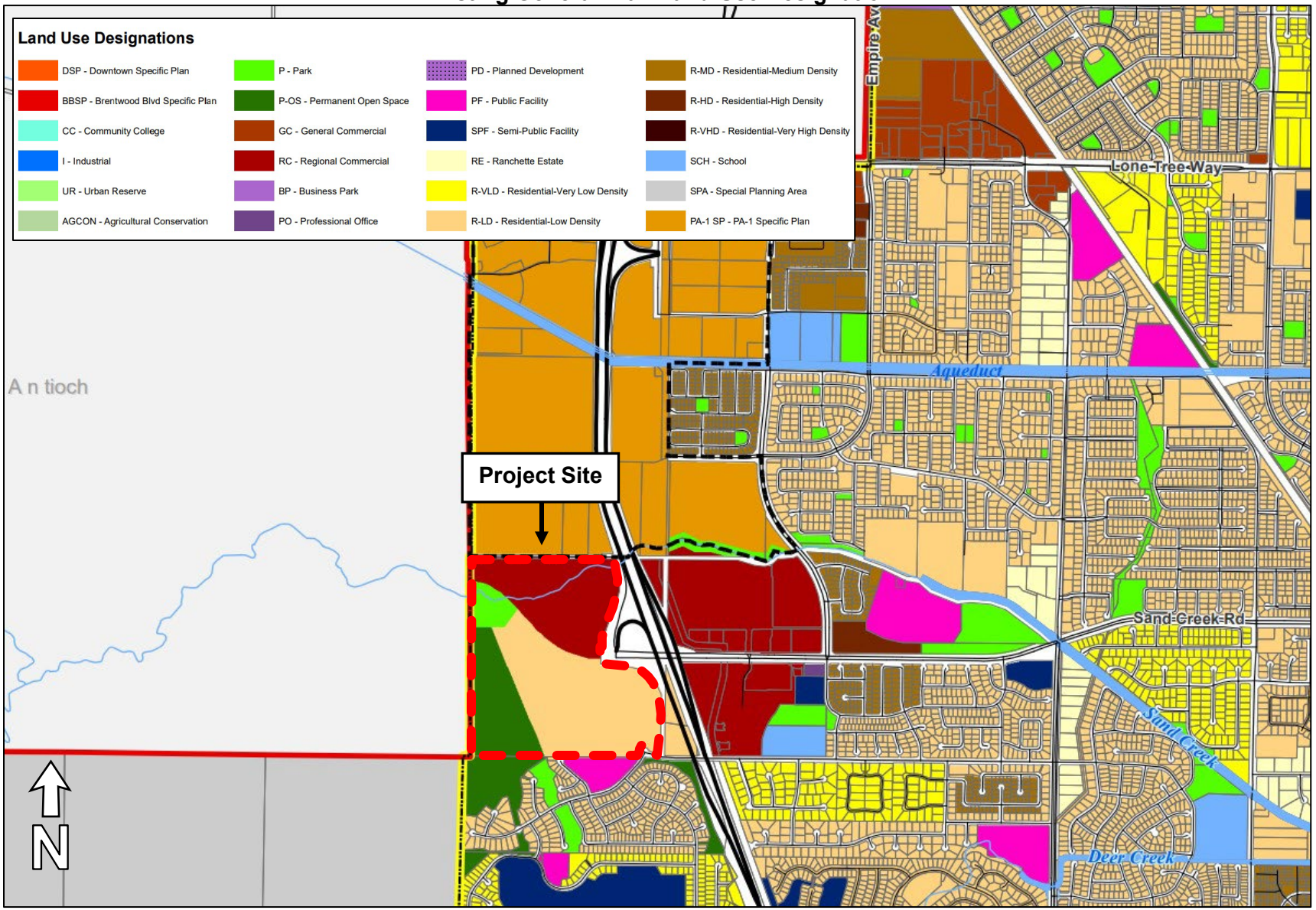


Figure 2
Project Vicinity Map



Figure 3
Existing General Plan Land Use Designation



RWQCB letters dated December 19, 1996, July 7, 2000, and March 29, 2001 confirm that all of the former oil wells, tank farm, and monitoring wells were remediated, and further investigation and/or monitoring is not required.[2] Development of the proposed project would require the provision of appropriate setbacks from abandoned oil wells as dictated by the Brentwood Zoning Ordinance.

Proposed Project Components

The proposed project would require approval of a Vesting Tentative Subdivision Map (VTSM) to develop 286 single-family residences, as well as associated improvements within the project site. The proposed project would also require approval of Design Review. Correspondence from City staff indicated that a Rezone is also required. The applicant disagrees, as discussed below. Each project component is discussed in detail below.

Vesting Tentative Map

The proposed project would require approval of a Vesting Tentative Map (VTM) to develop 286 single-family residences, as well as associated improvements within the project site, including parks, open space, stormwater detention and treatment areas, utility connections, and construction of an internal roadway network on approximately 92.96 acres (see Figure 4). The 33.9 acres of land located north of the future Sand Creek Road extension would remain undeveloped. It should be noted that due to an update to the Assessor's Parcel Map that occurred subsequent to the proposed project's application submittal, the acreages for the project parcel shown in Figure 4 differ slightly from the acreages described above. However, the acreages recorded on the Assessor's Parcel Map will be used for the purposes of the analysis included in the REIR.

Each component of the VTSM is discussed in further detail below.

Single-Family Residential Development

The proposed project would include subdivision of the project site to construct 286 single-family homes in the southeastern portion of the site. Lot sizes would range from 4,500 to 15,863 square feet (sf), with one- to three-story residences ranging from 1,592 sf to 2,392 sf. Overall, a total of 61.961 acres of the project site would be developed with residential uses. Therefore, buildout of the single-family residential development would result in a density of approximately 4.62 dwelling units per acre (du/ac).[3] It should be noted that while the density calculation is based on guidance included in the City's General Plan, the density calculation included herein differs from how density was calculated in the previous version of the Bride Gate Project, which use total site acreage, rather than only the portions of the site dedicated to residential use. However, the density calculation included herein is a conservative estimate.

Parks, Landscaping, and Open Space

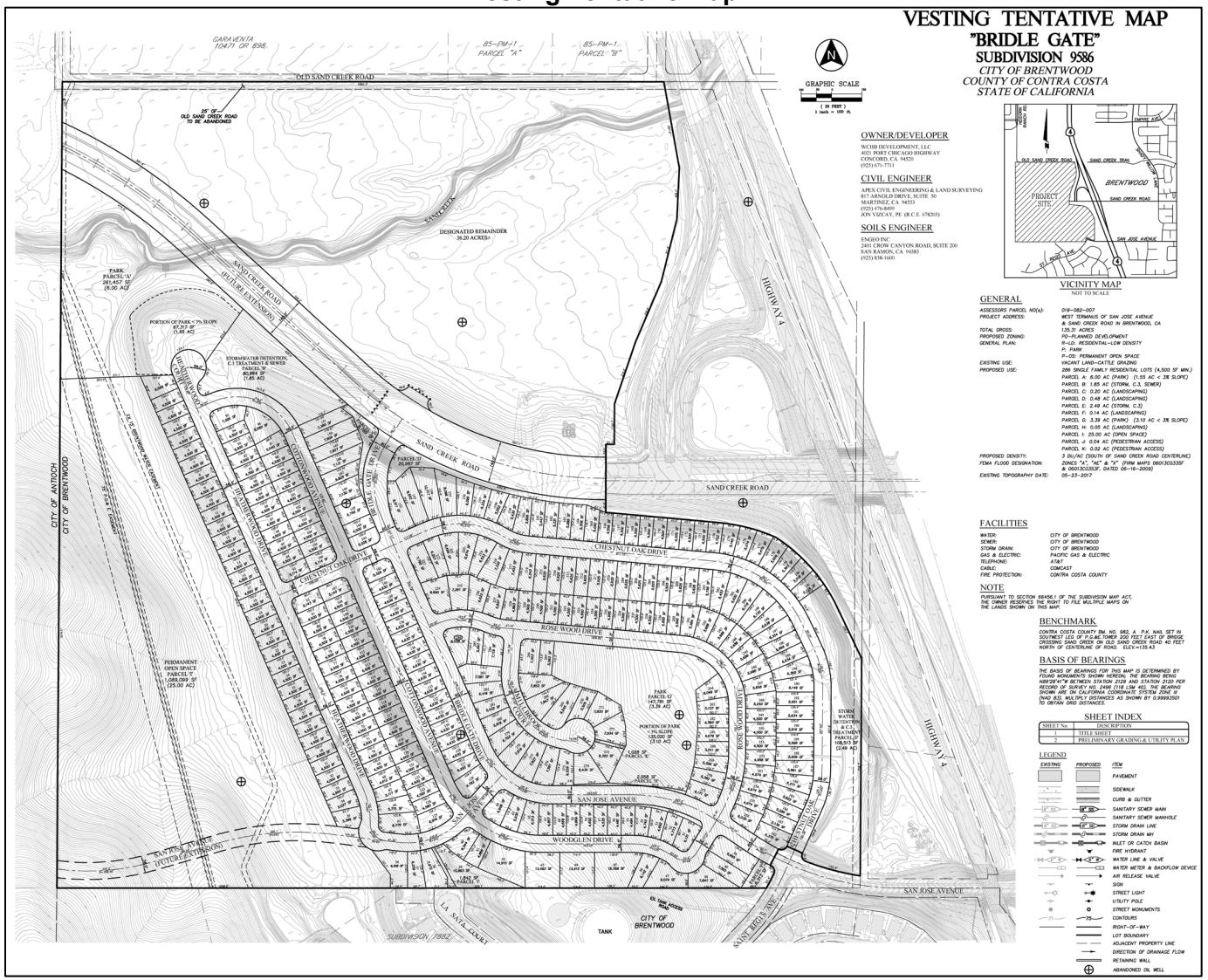
Two parcels totaling six acres (northwest portion of the site) and 3.39 acres (southeast portion of the site) would be dedicated to the City of Brentwood for use as public parks (see Figure 5, Parcel A and Parcel G).

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[2] California Regional Water Quality Control Board, Central Valley Region. *Monitoring Well Abandonment, ENEA, Brentwood Oil and Gas Field, Contra Costa County.* March 29, 2001.

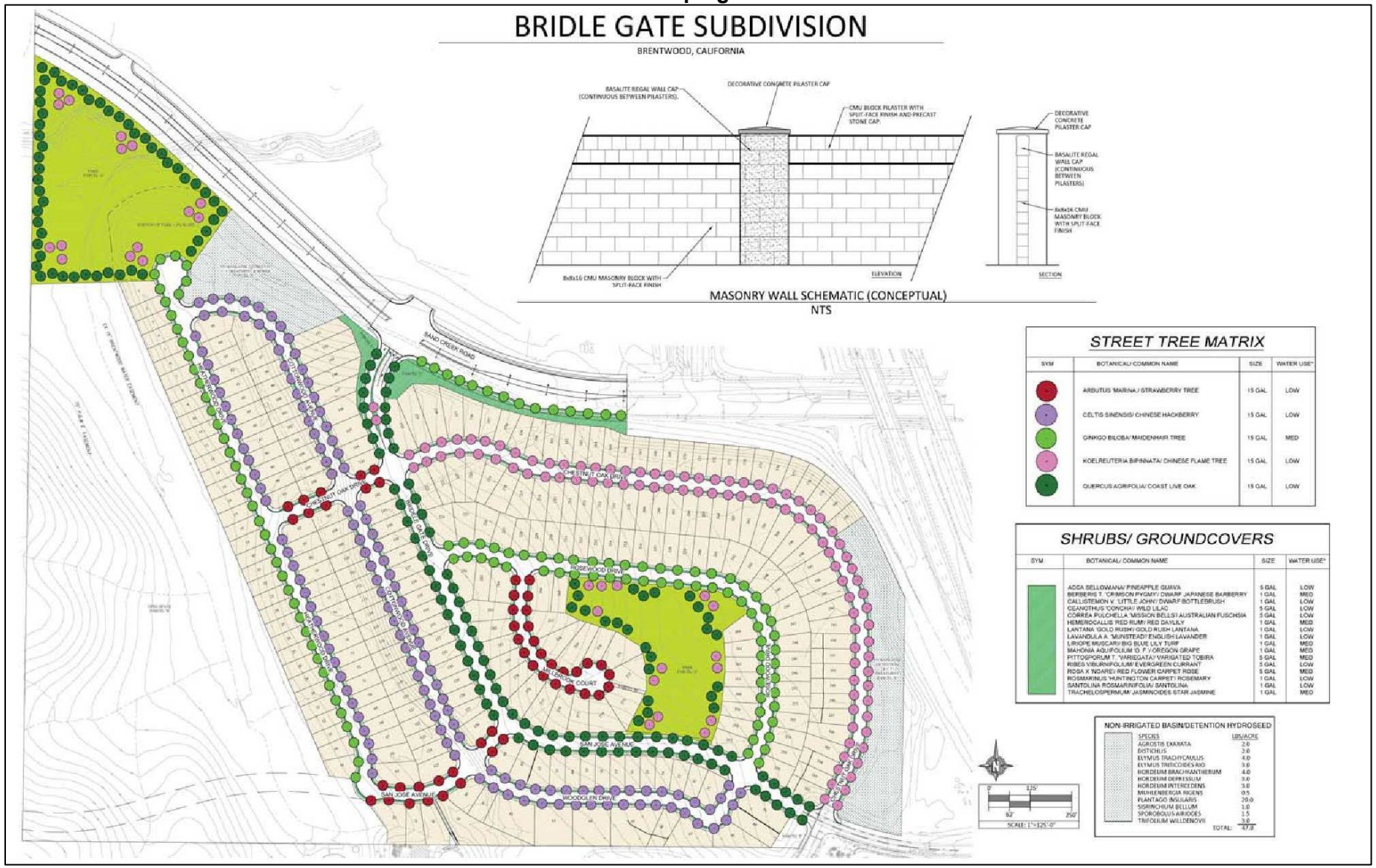
[3] 61.961 acres/286 single-family homes = 4.62 dwelling units per acre.

Figure 4
Vesting Tentative Map



Note: The project site acreage in the map shown above has been updated pursuant to an update to the Assessor's Parcel Map that occurred subsequent to the proposed project's application submittal.

Figure 5
Landscaping Plan



The parks would provide recreational amenities for residents of the proposed single-family subdivision. Landscaping elements would be provided throughout the proposed park areas and all other developed portions of the site consistent with City requirements.

As discussed previously, Sand Creek currently flows from west to east through the northern portion of the proposed project site. However, the 33.9 acres of land located north of the future Sand Creek Road extension (see below for road extension details), which includes the majority of the portion of Sand Creek located within the site, would remain undeveloped. The remainder of the portion of Sand Creek located within the project site would be located within the proposed six-acre park. An additional 25 acres of permanent open space (Parcel I) would be located within the southwestern portion of the site.

Utilities and Drainage

Water and sewer service for the proposed project would be provided by the City of Brentwood. The proposed project would include the extension of 16-inch water and 8-inch sewer lines within the portion of Sand Creek Road along the project frontage, which would then be connected to additional lines constructed within internal streets to serve the proposed development areas (see Figure 6).

Stormwater draining off impervious areas such as roofs, parking areas, and streets within the project site would be transported through new 15- to 18-inch storm drains to two bio-retention basins located in the northwestern portion of the site, southeast of the proposed six-acre park (Parcel B), and along the southeast boundary of the site (Parcel E), respectively.

Access and Circulation

The proposed project would include construction of new internal roadways and the extension of San Jose Avenue to the west. It should be noted that a separate City-initiated capital improvement project will extend Sand Creek Road from the westerly existing terminus of SR 4 to Heidorn Ranch Road to the northwest. The future Sand Creek Road extension will extend along the northern boundary of the proposed single-family residential portion of the project and connect to one of the new internal roadways to provide site access. Site access would also be provided by the proposed extension of San Jose Avenue.

An internal circulation system would be provided throughout the proposed single-family residential subdivision. Each internal roadway would be designed to meet current City standards and would include sidewalks on both sides. Pedestrian access would be provided in the form of sidewalks and trails throughout the proposed development, in conformance with City standards.

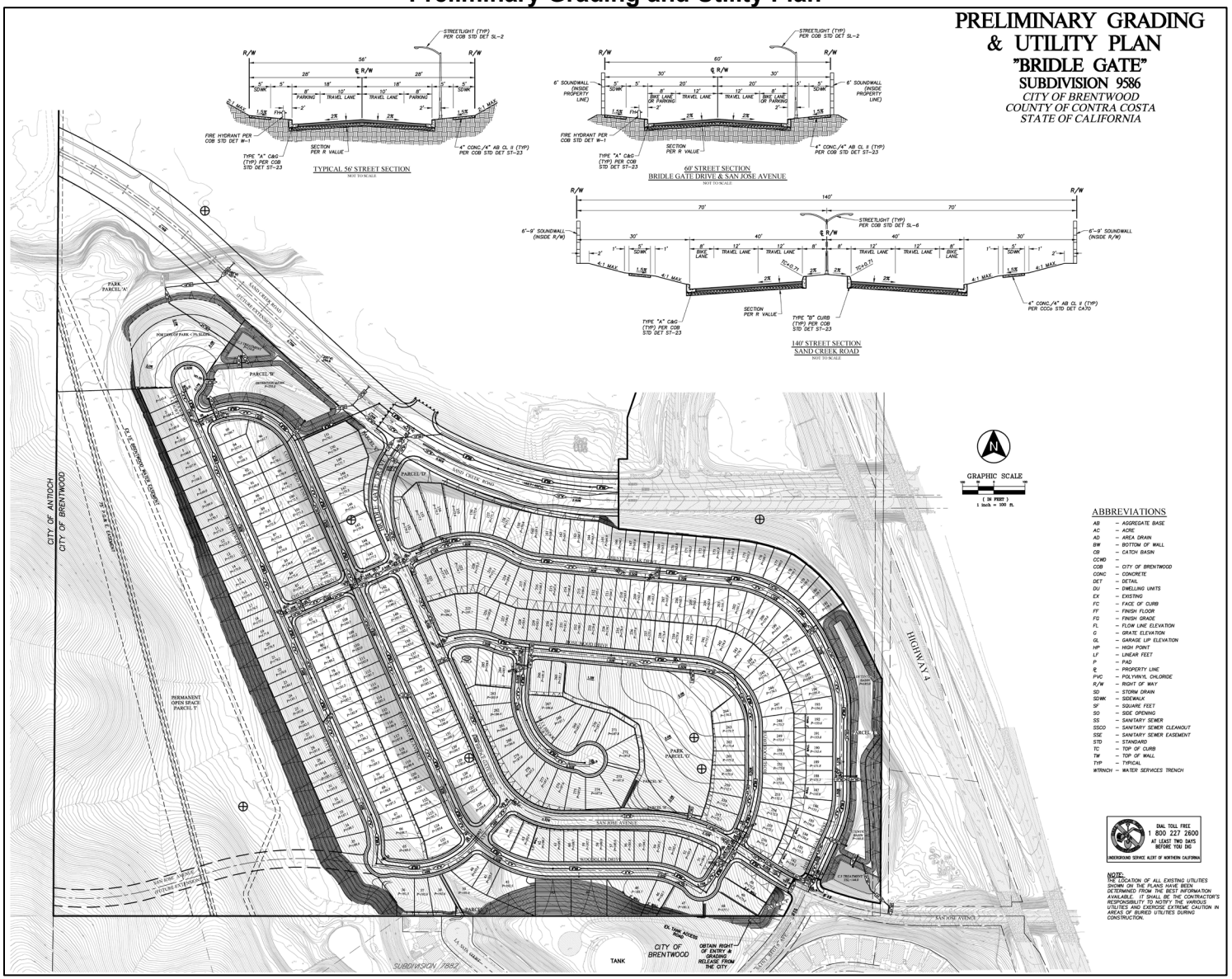
Design Review

In accordance with the Brentwood Zoning Ordinance, all proposed structures are subject to design review approval by the Planning Commission in order to foster a good design character through consideration of aesthetic and functional relationships to surrounding development. Therefore, because the proposed project would include the development of 286 single-family residences, the proposed project would be subject to Design Review approval.

Rezone

As discussed above, correspondence from City staff has indicated that a Rezone to amend PD-36 is required. The applicant disagrees. The City anticipates the REIR will address issues with respect to any potential rezoning.

Figure 6
Preliminary Grading and Utility Plan



Discretionary Actions

Implementation of the proposed project would require the following discretionary actions by the City of Brentwood Planning Commission and/or City Council:

- Rezone to amend PD-36;[4]
- Vesting Tentative Subdivision Map; and
- Design Review.

ENVIRONMENTAL EFFECTS

The environmental analysis for the proposed project will focus on the following areas: Aesthetics; Air Quality, Greenhouse Gas Emissions, and Energy; Biological Resources; Hazards and Hazardous Materials; Noise; and Transportation. In addition, the REIR prepared for the proposed project will include a discussion of Effects Not Found to be Significant; Statutorily Required Sections; and Alternatives to the Proposed Project. The following section describes each of the technical Chapters of the REIR in further detail.

Information will be drawn from the City of Brentwood General Plan and General Plan EIR, technical studies prepared, and any other information pertinent to the project area. Consistent with CEQA and the requirements of the City of Brentwood, each environmental chapter will include an introduction, existing environmental setting, regulatory context, and impacts and mitigation measures.

Air Quality, Greenhouse Gas Emissions, and Energy

The air quality and greenhouse gas (GHG) analysis for the proposed project will rely on an Air Quality Technical Report and GHG Reduction Plan prepared for the proposed project.

The Air Quality, Greenhouse Gas Emissions, and Energy chapter will include a quantitative assessment of short-term (i.e., construction) and long-term (i.e., operational) increases of criteria air pollutant emissions of primary concern (i.e., ROG, NO_X, and PM_{10}) for the proposed project. The construction analysis will account for construction of new buildings and infrastructure. Additionally, the significance of air quality impacts will be determined in comparison to Bay Area Air Quality Management District (BAAQMD)-recommended thresholds of significance. The chapter will also address toxic air contaminant (TAC) emissions. The project's cumulative contribution to regional air quality will be discussed, based in part on the modeling conducted at the project level. Mitigation measures will be incorporated to reduce any significant air quality impacts, and anticipated reductions in emissions associated with proposed mitigation measures will be quantified.

The GHG analysis included in the Air Quality Technical Report and GHG Reduction Plan prepared for the proposed project will use CalEEMod to produce an estimate of GHG emissions for the project, including indirect emissions (e.g., electricity, natural gas). Emissions will be expressed in units of carbon dioxide equivalents. With respect to Assembly Bill (AB) 32 and Senate Bill (SB) 32, the chapter will use guidance from the BAAQMD to determine significance of impacts and will document the relevance of the thresholds.

The chapter will also address whether the proposed project could result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy

[4] See comments on potential rezone above.

resources during project construction or operation, and will evaluate whether the project would conflict with or obstruct a state or local plan for renewable energy.

Biological Resources

The Biological Resources chapter of the REIR will summarize the setting and describe the potential project effects to plant communities, oak woodlands, wildlife, and wetlands, including adverse effects on rare, endangered, candidate, sensitive, and other special-status species for the project site. Analysis in the chapter will be based on a Planning Survey Report prepared for the proposed project. The project site is within the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (ECCC HCP/NCCP) boundary; thus, an evaluation of the potential for the proposed development of the project site to conflict with the provisions of the adopted ECCC HCP/NCCP will be included in the chapter. Mitigation measures for all identified impacts will be developed consistent with applicable laws and regulations.

It should be noted that the City of Brentwood, the project applicant, and the East Contra Costa County Habitat Conservancy have agreed upon a Multi-Party Mitigation and Land Dedication in Lieu of Development Fee Agreement, dated January 6, 2020. The Agreement requires the project applicant to dedicate land and pay a development impact fee to mitigate any potential impacts to biological resources within the scope of the ECCC HCP/NCCP. Compliance with the terms of this agreement would satisfy the requirements of the ECCC HCP/NCCP and any species and/or habitat mitigation requirements thereunder.

Hazards and Hazardous Materials

The Hazards and Hazardous Materials chapter will summarize the setting and describe any potential for existing or possible hazardous materials within the project area. The chapter will rely on a Phase I and II Environmental Site Assessment for use in the analysis. The Phase I and II Environmental Site Assessment will address the off-gassing of the existing oil and gas wells. The chapter will also assess the potential for the proposed project to create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials.

Noise

The Noise chapter of the REIR will be based on a project-specific Environmental Noise Assessment. The chapter will address potential noise impacts resulting from project construction and operation, including existing and future traffic noise levels on the local roadway network. Noise-sensitive land uses or activities in the project vicinity will be identified and ambient noise and vibration level measurements on, and in the vicinity of, the project site will be conducted to quantify existing background noise and vibration levels for comparison to the predicted project-generated levels. Noise exposure levels will then be compared to applicable significance criteria in the City of Brentwood General Plan, the City's Noise Ordinance, and CEQA. Feasible and appropriate mitigation measures to avoid or reduce adverse impacts will be identified, as needed.

Transportation

The Transportation chapter of the REIR will be based on a Traffic Study and associated Memorandum prepared specifically for the prior Bridle Gate Project, as well as a VMT Assessment prepared for the proposed project. Impact determination for CEQA purposes will be based on vehicle miles traveled (VMT), consistent with CEQA Guidelines Section 15064.3, which became effective statewide on July 1, 2020. The VMT analysis will be quantitative in nature and will be

prepared consistent with City of Brentwood and Contra Costa Transportation Authority (CCTA) current guidance regarding analysis of VMT.

The proposed project's impacts to alternative modes of transportation such as pedestrian, bicycle, and transit facilities will be assessed based on their significance criteria contained in the adopted City of Brentwood and CCTA guidelines. The REIR chapter will also include an analysis of the proposed project's potential impacts related to conflicting with applicable programs, policies, and ordinances addressing the circulation system, vehicle safety hazards, and emergency access. Feasible and appropriate mitigation measures to avoid or reduce adverse impacts will be identified, as needed.

Effects Not Found to be Significant

Section 15128 of the CEQA Guidelines states that an EIR shall contain a brief statement indicating the reasons that various possible significant effects of a project were determined not to be significant and were, therefore, not discussed in detail in the EIR. Accordingly, the Effects Not Found to be Significant chapter of the REIR will include abbreviated discussions of impacts determined not to be significant.

Statutorily Required Sections

Pursuant to CEQA Guidelines Section 21100(B)(5), the Statutorily Required Sections chapter of the REIR will address the potential for growth-inducing impacts of the proposed project, focusing on whether removal of any impediments to growth would occur with the proposed project. A summary of the significant and unavoidable impacts identified within the REIR will be included in this chapter, as well as a discussion of significant irreversible impacts. The chapter will generally describe the cumulative setting for the proposed project; however, a detailed description of the subject-specific cumulative setting, as well as analysis of the cumulative impacts, will be included in each technical chapter of the REIR.

Alternatives Analysis

In accordance with Section 15126.6(a) of the CEQA Guidelines, the REIR will include an analysis of a range of alternatives, including a No Project Alternative. Consideration will be given to potential off-site locations consistent with CEQA Guidelines, Section 15126.6(f)(2), and such locations will be determined in consultation with City staff. If it is determined that an off-site alternative is not feasible, the REIR will include a discussion describing why such a conclusion was reached. The project alternatives will be selected when more information related to project impacts is available in order to be designed to reduce significant project impacts. The chapter will also include a section of alternatives considered but dismissed, if necessary. The Alternatives Analysis chapter will describe the alternatives and identify the environmentally superior alternative. The alternatives will be analyzed at a level of detail less than that of the proposed project; however, the analyses will include sufficient detail to allow a meaningful comparison of the impacts. Such detail may include conceptual site plans for each alternative, basic quantitative traffic information (e.g., trip generation), as well as a table that will compare the features and the impacts of each alternative.

SUBMITTING COMMENTS

To ensure that the full range of issues related to this proposed project is addressed and that all significant issues are identified, written comments are invited from all interested parties. Written

comments concerning the scope of the proposed CEQA analysis for the proposed project should be submitted to enolthenius@brentwoodca.gov or directed to the name and address below:

Erik Nolthenius, Planning Manager
City of Brentwood Community Development Department
150 City Park Way
Brentwood, CA 94513
enolthenius@brentwoodca.gov
(925) 516-5137

Written comments are due to the City of Brentwood at the location addressed above by 5:00 PM on January 30, 2023.

Appendix B

24 January 2023

Erik Nolthenius
City of Brentwood
Community Development Department
150 City Park Way
Brentwood, CA 94513
enolthenius@brentwoodca.gov

COMMENTS TO REQUEST FOR REVIEW FOR THE NOTICE OF PREPARATION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, BRIDLE GATE PROJECT, SCH#2022120683, CONTRA COSTA COUNTY

Pursuant to the State Clearinghouse's 29 December 2022 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Notice of Preparation for the Draft Environmental Impact Report* for the Bridle Gate Project, located in Contra Costa County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore, our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by

the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]
The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Clean Water Act Section 404 Permit
If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification
If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4684 or Peter.Minkel2@waterboards.ca.gov.

Peter Minkel

Peter Minkel
Engineering Geologist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

From: Cindy Gnos
To: Briette Shea
Subject: FW: Bridle Gate NOP
Date: Tuesday, January 3, 2023 9:01:07 AM

I'm not sure who gets the NOP comments. Already got one!

Cindy Gnos, AICP

Senior Vice President

phone. (916) 372-6100
mobile. (916) 799-0431
1501 Sports Drive, Suite A Sacramento, CA 95834
www.raneymanagement.com

From: Nolthenius, Erik <enolthenius@brentwoodca.gov>
Sent: Tuesday, January 3, 2023 8:51 AM
To: Cindy Gnos <cindygnos@raneymanagement.com>; Rod Stinson <rods@raneymanagement.com>
Cc: Murphy, Karen W. <KMurphy@bwslaw.com>; Tsubota, Miki <mtsubota@brentwoodca.gov>; Wisinski, Katherine <kwisinski@brentwoodca.gov>
Subject: FW: Bridle Gate NOP

FYI

From: Cutshaw, Jay A <CUTS@chevron.com>
Sent: Friday, December 30, 2022 8:51 AM
To: Nolthenius, Erik <enolthenius@brentwoodca.gov>
Subject: Re: Bridle Gate NOP

CAUTION – EXTERNAL SENDER

No conflict with Chevron Pipeline.

Get Outlook for iOS

From: Nolthenius, Erik <enolthenius@brentwoodca.gov>
Sent: Thursday, December 29, 2022 1:19:26 PM
Cc: =yCouncil Members <Councilmembers@brentwoodca.gov>; =yPlanningMembers <PlanningCommission@brentwoodca.gov>; =yDepartment Directors <departmentdirectors@brentwoodca.gov>
Subject: [**EXTERNAL**] Bridle Gate NOP

Be aware this external email contains an attachment and/or link.

Ensure the email and contents are expected. If there are concerns, please submit suspicious messages to the Cyber Intelligence Center using the Report Phishing button.

Good afternoon. Please find attached the Notice of Preparation for a Revised Environmental Impact Report for the proposed Bridle Gate project. Thank you.

Erik Nolthenius, Planning Manager
Community Development
150 City Park Way
Brentwood, CA 94513-1164
Phone: 925.516.5137
Fax: 925.516.5407
enolthenius@brentwoodca.gov



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BRIDLE GATE PROJECT
NOTICE OF PREPARATION (NOP) SCOPING MEETING

COMMENT FORM

To be added to or corrected on our mailing list, and to document the author of comments received, please provide the following information. Thank you.

Name: Derek Emmons

Address: 6548 Mokelumne Ave, Oakland CA 94605

Organization: Contra Costa Resource Conservation District

Please provide us with your written comments on the NOP by **5:00 p.m.** on **January 30, 2023**.

Greetings! I'm glad to see the incorporation of Bio-retention basins and new parks integrated into the development. We hope it is possible to collaborate further with the Friends of Marsh Creek, Marsh Creek Watershed Council, and the Parks management to design and manage the parks in the most ecologically beneficial ways. This could include:

- Increase the amount and diversity of native plant species in addition to the Live Oaks (western sycamore, western redbud, Valley oak, etc.)
- Integrate the creek corridor with the park and community engagement/education (Access, Signage)
- consider One large park/open space rather than smaller sizes
- Contact us about how to do it

Looking forward to connecting and imagining the realm of possibilities!

Thank you,
Derek Emmons
demmons@ccrcd.org

Please send comments to:

Erik Nolthenius, Planning Manager
City of Brentwood Community Development Department
150 City Park Way
Brentwood, CA 94513
enolthenius@brentwoodca.gov

Department of Toxic Substances Control

Yana Garcia
Secretary for
Environmental Protection

Meredith Williams, Ph.D.
Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Gavin Newsom
Governor

SENT VIA ELECTRONIC MAIL

January 30, 2023

Mr. Erik Nolthenius
Planning Manager
City of Brentwood
Community Development Department
150 City Park Way
Brentwood, CA 94513
ENolthenius@brentwoodca.gov

NOTICE OF PREPARATION OF A REVISED ENVIRONMENTAL IMPACT REPORT FOR THE PROPOSED BRIDLE GATE PROJECT – DATED DECEMBER 29, 2022 (STATE CLEARINGHOUSE NUMBER: 2022120683)

Dear Mr. Nolthenius:

The Department of Toxic Substances Control (DTSC) received a Notice of Preparation of a Revised Environmental Impact Report (REIR) for the Proposed Bridle Gate Project (Project). The Lead Agency is receiving this notice from DTSC because the Project includes one or more of the following: groundbreaking activities, work in close proximity to a roadway, importation of backfill soil, and/or work on or in close proximity to an agricultural or former agricultural site.

DTSC recommends that the following issues be evaluated in the Hazards and Hazardous Materials section of the REIR:

1. A State of California environmental regulatory agency such as DTSC, a Regional Water Quality Control Board (RWQCB), or a local agency that meets the requirements of Health and Safety Code section 101480 should provide regulatory concurrence that the Project site is safe for construction and the proposed use.
2. The REIR should acknowledge the potential for historic or future activities on or near the project site to result in the release of hazardous wastes/substances on

the project site. In instances in which releases have occurred or may occur, further studies should be carried out to delineate the nature and extent of the contamination, and the potential threat to public health and/or the environment should be evaluated. The REIR should also identify the mechanism(s) to initiate any required investigation and/or remediation and the government agency who will be responsible for providing appropriate regulatory oversight.

3. Refiners in the United States started adding lead compounds to gasoline in the 1920s in order to boost octane levels and improve engine performance. This practice did not officially end until 1992 when lead was banned as a fuel additive in California. Tailpipe emissions from automobiles using leaded gasoline contained lead and resulted in aerially deposited lead (ADL) being deposited in and along roadways throughout the state. ADL-contaminated soils still exist along roadsides and medians and can also be found underneath some existing road surfaces due to past construction activities. Due to the potential for ADL-contaminated soil DTSC, recommends collecting soil samples for lead analysis prior to performing any intrusive activities for the project described in the REIR.

4. If any projects initiated as part of the proposed project require the importation of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination. DTSC recommends the imported materials be characterized according to DTSC's 2001 *Information Advisory Clean Imported Fill Material*.

5. If any sites included as part of the proposed project have been used for agricultural, weed abatement or related activities, proper investigation for organochlorinated pesticides should be discussed in the REIR. DTSC recommends the current and former agricultural lands be evaluated in accordance with DTSC's 2008 *Interim Guidance for Sampling Agricultural Properties (Third Revision)*.

DTSC appreciates the opportunity to comment on the forthcoming REIR. Should you need any assistance with an environmental investigation, please visit DTSC's Site Mitigation and Restoration Program page to apply for lead agency oversight. Additional information regarding voluntary agreements with DTSC can be found at DTSC's Brownfield website.

If you have any questions, please contact me at (916) 255-3710 or via email at Gavin.McCreary@dtsc.ca.gov.

Sincerely,



Gavin McCreary
Project Manager
Site Evaluation and Remediation Unit
Site Mitigation and Restoration Program
Department of Toxic Substances Control

cc: (via email)

Governor's Office of Planning and Research
State Clearinghouse
State.Clearinghouse@opr.ca.gov

Mr. Dave Kereazis
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kereazis@dtsc.ca.gov

DEPARTMENT OF TRANSPORTATION
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Making Conservation a California Way of Life.

July 15, 2020

SCH #2019080071
GTS #04-CC-2019-00446
GTS ID: 16624
Co/Rt/Pm: CC/4/34.347

Erik Nolthenius
City of Brentwood
Community Development Department
150 City Park Way
Brentwood CA 94513

Bridle Gate Project- Draft Environmental Impact Report (DEIR)

Dear Erik Nolthenius:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Bridle Gate Project. We are committed to ensuring that impacts to the State's multimodal transportation system and to our natural environment are identified and mitigated to support a safe, sustainable, integrated and efficient transportation system. The following comments are based on our review of the May 2020 DEIR.

Project Understanding

The proposed project would include subdivision of the site for development of 252 single-family homes and associated improvements within the southern portion of the site, as well as a 258-unit apartment complex in the northwest portion of the site, 19.59 acres of future commercial development north of the Sand Creek Road portion of the site, and dedication of 4.3 acres of land to the City of Brentwood for use as public parks. In addition, the project includes an 11.35-acre section of the site to be developed as an elementary school, or, alternatively if the school development does not proceed, as a residential development with 63 single-family units. The proposed project would also include water, sewer, and stormwater utility improvements.

Hydraulics
The northern portion of the proposed project is part of Sand Creek Watershed that passes under Sand Creek Bridge on SR-4. Runoff flow volumes, peaks and durations for 2, 5, 10, 25, 50 and 100-year rainfall events should not exceed the pre-project conditions. Please provide the Drainage Master Plan for the entire development of the project.

In section 3-10, there is reference to P, Q, R, and M as the bio-retention sites before stormwater leaves the property. However, parcels Q and R could not be found on the referenced figure 3-4.

Landscaping
The DEIR appears to be missing sections for Visual/Aesthetics. Beginning on page 4.0-1, the section Aesthetics (All Sections) appears to cover some visual impact information. Please separate or rename the section to separate Aesthetics and the Visual Impacts aspects of the project.

The area in the immediate vicinity of the project (between Lone Tree Way and San Jose Avenue) consists of a rural level of development. The project would result in a cumulative suburban level of development. Please discuss how the Build Alternative would alter existing visual character and quality with the addition of residential/commercial development, lighting, grading and sound walls. Please discuss how these impacts will be minimized or mitigated. Minimization measures include utilization of sound walls, directional lighting, screen plantings and aesthetic treatments on walls. Minimization Measures should be called out in the final EIR.

Disturbed soil areas should be hydroseeded with appropriate native seed mixes to restore impacted areas and to prevent soil erosion.

Please note that SR-4 is an Eligible State Scenic Highway between PM R31.1-40.5 (from SR-160 near Antioch to Sr-84 in Brentwood). Classified Landscaped Freeway status exists between PM R30.37-R30.82, just outside the project limits. This designation assists in the control and placement of outdoor advertising.

Transportation Impact Fees
The City of Brentwood should identify project-generated travel demand and estimate the costs of transit and active transportation improvements necessitated by the proposed project; viable funding sources such as the City's existing development and/or transportation impact fee programs should also be identified. We encourage a sufficient allocation of fair share contributions

toward multimodal and regional transit improvements to fully mitigate cumulative impacts to regional transportation. We also strongly support measures to increase sustainable mode shares, thereby reducing VMT.

The City should also ensure that a capital improvement plan identifying the cost of needed improvements, funding sources, and a scheduled plan for implementation is prepared along with the approval of this project. Caltrans welcomes the opportunity to work with the City and local partners to secure the funding for needed mitigation. Traffic mitigation- or cooperative agreements are examples of such measures.

Construction-Related Impacts
Potential impacts to the State Right-of-Way (ROW) from project-related temporary access points should be analyzed. Mitigation for significant impacts due to construction and noise should be identified in the final EIR. Project work that requires movement of oversized or excessive load vehicles on state roadways requires a transportation permit that is issued by Caltrans. To apply, visit: https://dot.ca.gov/programs/traffic-operations/transportation-permits.

Prior to construction, coordination is required with Caltrans to develop a Transportation Management Plan (TMP) to reduce construction traffic impacts to the State Transportation Network.

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, please contact Laurel Sears at (510)286-5614 or laurel.sears@dot.ca.gov. Additionally, for future notifications and requests for review of new projects, please contact LDIGR-D4@dot.ca.gov.

Sincerely,

Mark Leong

Mark Leong
District Branch Chief
Local Development - Intergovernmental Review

cc: State Clearinghouse

EARTHJUSTICE
BECAUSE THE EARTH NEEDS A GOOD LAWYER

Via Electronic Mail

January 27, 2023

Erik Nolthenius
Planning Manager
City of Brentwood Community Development Department
150 City Park Way
Brentwood, CA 94513
enolthenius@brentwoodca.gov

Re: Earthjustice Comments on the Notice of Preparation of a Draft Environmental Impact Report for Bridle Gate Project

Earthjustice appreciates the opportunity to comment on the Notice of Preparation of a Draft Environmental Impact Report ("DEIR") for the Bridle Gate Project ("Project"), which contemplates development of 286 single-family residences and associated improvements. Our initial comments focus on the importance of incorporating building electrification requirements into the Project. New construction that relies on burning gas for end uses such as cooking and space and water heating has significant greenhouse gas ("GHG"), energy, and health impacts under the California Environmental Quality Act ("CEQA"). All-electric buildings avoid these impacts. Moreover, all-electric buildings are typically less costly to construct due to avoided costs of gas infrastructure. With the California Public Utilities Commission ("CPUC") now ending subsidies for gas lines to new development, cost savings from all-electric construction will further increase. Accordingly, to comply with CEQA's obligation to adopt all feasible mitigation to reduce significant environmental impacts, the City must require an all-electric Project design that is not connected to the gas system.

I. Projects Connecting to the Gas System Have Significant GHG, Energy and Public Health Impacts.

A. The GHG Impacts of Projects Connecting to the Gas System Are Significant.

CEQA requires a DEIR to identify all the significant impacts of a proposed project, including impacts from the project's GHG emissions.[1] One option to determine the significance of the Project's GHG impacts is to apply a net-zero emissions threshold. In addition to being CEQA-compliant, a net-zero threshold is also consistent with the severity of the climate crisis and the recognition that any increase in GHG emissions exacerbates the cumulative impacts of climate change.

[1] CEQA Guidelines § 15126.2; Appendix F.

Another option is to apply the approach recently adopted by the Bay Area Quality Management District ("BAAQMD"). In determining the significance of project impacts, a lead agency "must ensure that CEQA analysis stays in step with evolving scientific knowledge and state regulatory schemes." *Cleveland National Forest Foundation v. San Diego Assn. of Gov'ts* (2017) 3 Cal.5th 497, 519. To stay in step with evolving scientific knowledge and state policy, the Bay Area Quality Management District ("BAAQMD") updated its previous CEQA GHG guidance for buildings this year to require all new projects to be built without natural gas and with no inefficient or wasteful energy usage in order to receive a finding of no significant impact.[2] BAAQMD's previous 1,100 MT GHG significance threshold was derived from Assembly Bill ("AB") 32's 2020 GHG reduction targets, but did not reflect later developments, such as Senate Bill ("SB") 32's requirement to reduce GHGs to 40 percent below 1990 levels by 2030, nor Executive Order B-55-18's requirement to achieve carbon neutrality by 2045.[3] As BAAQMD properly noted in its justifications for its updated GHG threshold, "[f]or California to successfully eliminate natural gas usage by 2045, it will need to focus available resources on retrofitting existing natural gas infrastructure. This task will become virtually impossible if we continue to build more natural gas infrastructure that will also need to be retrofit within the next few years."[4]

Even outside of BAAQMD's jurisdiction, the analysis supporting its zero-gas threshold provides substantial evidence to support an EIR' s finding of significance, particularly where, as here, GHGs are a globally dispersed pollutant. Indeed, state agencies have made similar findings regarding the incompatibility of gas in new construction with achievement of state climate requirements. As the California Energy Commission ("CEC") determined in its 2018 Integrated Energy Policy Report ("IEPR") Update:

> New construction projects, retrofitting existing buildings, and replacing appliances and other energy-consuming equipment essentially lock in energy system infrastructure for many years. As a result, each new opportunity for truly impactful investment in energy efficiency and fuel choice is precious. If the decisions made for new buildings result in new and continued fossil fuel use, it will be that much more difficult for California to meet its GHG emission reduction goals. Parties planning new construction have

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[2] *See* BAAQMD, *Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans*, at 11 (Apr. 2022) ("BAAQMD 2022 Update"), https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en.

[3] *See* BAAQMD, *CEQA Guidelines Update, Proposed Thresholds of Significance* at 10-22 (Dec 7, 2009), http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/proposed-thresholds-of-significance-dec-7-09.pdf?la=en (explaining methodology for previous project-level GHG threshold).

[4] Justification Report at 12.

> the opportunity instead to lock in a zero- or low-carbon emission outcome that will persist for decades.[5]

Consistent with the CEC's findings, the California Public Utilities Commission ("CPUC") recently adopted a Decision that would end gas line extension allowances, finding that "gas line subsidies encourage gas use by providing incentives to builders to install more gas appliances, perpetuating a continued reliance on the gas system both now and over the life of the appliance, and offsetting if not reversing any GHG emission reduction benefits secured through other decarbonization measures."[6] Accordingly, the CPUC found, subsidies for these new gas connections "work against today's climate goals and conflict[] with SB 32 and 1477."[7] This reflects the growing consensus that aggressive electrification will be needed to achieve the state's climate goals. Indeed, the 2022 Title 24 update already requires heat pumps as a baseline for either space or water heating in single-family homes, as well as a heat pump space heating standard for new muti-family homes and businesses.[8] In addition, any new mixed-fuel single-family homes must already be electric-ready so they can "easily convert from natural gas to electric in the future."[9]

Earthjustice strongly cautions against using approaches to determine the significance of Project GHG impacts that involve comparisons against "business-as-usual" emissions or a per capita emissions metric. In *Center for Biological Diversity v. Cal. Dept of Fish & Wildlife* (2015) 62 Cal.4th 204, the California Supreme Court held that determining the significance of project GHG impacts by comparing project emissions with emissions under a business-as-usual scenario derived from statewide emissions reduction goals under AB 32 lacked substantial evidence. For similar reasons, use of statewide per capita emissions metrics to determine the significance of project emissions has also been rejected for the purpose of determining project GHG impacts under CEQA. As the court held in *Golden Door Properties LLC*, "using a statewide criterion requires substantial evidence and reasoned explanation to close the analytical gap left by the assumption that the 'level of effort required in one [statewide] context . . . will suffice in the other, a specific land use development.'" *Golden Door Properties LLC v. County of San Diego* (2018) 27 Cal.App.5th 892, 904 (quoting *Center for Biological Diversity*, 62 Cal.4th at 227). While use of a statewide per capita metric to determine the significance of GHG impacts may be useful for a General Plan, which examines collective community emissions of

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[5] CEC, *2018 Integrated Energy Policy Report Update, Vol. II* at 18 (Jan. 2019)("2018 IEPR Update"), https://efiling.energy.ca.gov/getdocument.aspx?tn=226392

[6] D.22-09-026, Phase III Decision Eliminating Gas Line Extension Allowances, Ten-Year Refundable Payment Option, and Fifty Percent Discount Payment Option Under Gas Line Extension Rules, at 27 (Sep. 20, 2022), https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M496/K987/496987290.PDF.

[7] *Id*.

[8] *See* CEC, 2022 Building Energy Efficiency Standards Summary, at 9 (Aug. 2021), https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf.

[9] Id.

existing and proposed new development, it is not appropriate for projects that only govern new development.

B. The Energy Impacts of Projects Connecting to the Gas System are Significant.

A key purpose of the evaluation of project energy impacts under CEQA is "decreasing reliance on fossil fuels, such as coal, natural gas and oil."[10] Addressing energy impacts of proposed projects requires more than mere compliance with Title 24 Building Energy Efficiency Standards.[11] Including gas hook-ups in new projects, and thereby perpetuating reliance on fossil fuels, is contrary to California's energy objectives and should be considered a significant impact under CEQA.

In addition to the lock-in effect discussed above and its perpetuation of reliance on fossil fuel infrastructure, gas appliances are also inherently wasteful because they are significantly less efficient than their electric alternatives. Heat pumps for space and water heating are substantially more efficient than their gas counterparts. Because heat pumps use electricity to move heat around rather than creating heat, their efficiency is far greater than 100 percent (energy services delivered are much greater than energy input). For example, gas water heaters advertised by Rheem, a major water heating manufacturer, have uniform efficiency factor ("UEF") of 0.58 – 0.83.[12] In contrast, Rheem's heat pump water heaters have UEFs between 3.7 and 4.0, making them roughly four to seven times more efficient than gas alternatives.[13] As recognized by the CEC, "[u]sing heat pumps for space and water heating, as well as other uses, is cost-effective in the long run simply because electrification technologies can be significantly more efficient than natural gas technologies."[14] Given the low inherent efficiencies of gas space and water heating as compared to heat pump options, homes that continue to rely on gas cannot be reasonably construed as "the wise and efficient use of energy" and therefore result in significant energy impacts under CEQA.

C. The Health/Air Quality Impacts of Projects Connecting to the Gas System are Significant.

CEQA also requires consideration of "health and safety problems" that may result from a project's emissions.[15] Indeed, Section III.(d) of Appendix G of the CEQA Guidelines

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[10] CEQA Guidelines, Appendix F, Sec. I.
[11] See California Clean Energy Committee v. City of Woodland (2014) 225 Cal.App.4th 173, 211.
[12] Rheem, *Gas Water Heaters*, https://www.rheem.com/products/residential/water-heating/tank/residential_gas/.
[13] Rheem, *Professional Prestige Series ProTerra Hybrid Electric Water Heater with LeakGuard, https://www.rheem.com/group/rheem-hybrid-electric-water-heater-professional-prestige-series-hybrid-electric-water-heater*.
[14] 2018 IEPR Update at 32.
[15] CEQA Guidelines § 15126.2; *see also Sierra Club v. County of Fresno* (2018) 6 Cal. 5th 502, 520 (requiring an EIR to not only discuss air quality impacts and human health impacts separately, but to draw a connection between the two segments of information, to "meet CEQA's requirements.").

specifically asks a lead agency to evaluate if the project would "[e]xpose sensitive receptors to substantial pollutant concentrations."[16] The health and safety hazards of gas-burning appliances in buildings are well-documented by the California Air Resources Board ("CARB"), the CEC, and numerous peer-reviewed academic studies. In a Board-adopted resolution, CARB determined that that "cooking emissions, especially from gas stoves, are associated with increased respiratory disease."[17] Children in homes with gas stoves are particularly at risk. A meta-analysis examining the association between gas stoves and childhood asthma found that "children in homes with gas stoves have a 42 percent increased risk of experiencing asthma symptoms (current asthma)" and "a 24 percent increased risk of ever being diagnosed with asthma by a doctor (lifetime asthma)."[18] Other health effects observed in children from exposure to nitrogen dioxide ("NO_x"), which is a byproduct of gas combustion, include cardiovascular effects, increased susceptibility to allergens and lung infections, irritated airways and other aggravated respiratory symptoms, and learning deficits.[19] As found repeatedly by peer-reviewed studies, combustion of gas in household appliances produces harmful indoor air pollution, including carbon monoxide, nitric oxide and nitrogen dioxide, formaldehyde, acetaldehyde, and ultrafine particles, often in excess of the levels set out by the California Ambient Air Quality Standards and the National Ambient Air Quality Standards.[20] CARB has therefore recognized "the conclusion of recent studies that 100 percent electrification of natural gas appliances in

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[16] CEQA Guidelines, Appendix G, Sec. III(d).

[17] CARB, *Combustion Pollutants & Indoor Air Quality*, https://perma.cc/J6YH-VVZH (as of March 30, 2022).

[18] Brady Seals & Andee Krasner, *Gas Stoves: Health and Air Quality Impacts and Solutions*, Rocky Mountain Institute, Physicians for Social Responsibility, and Sierra Club, at 13 (2020), https://rmi.org/insight/gas-stoves-pollution-health/.

[19] *Id.*

[20] *See, e.g.*, Jennifer M. Logue et al., *Pollutant Exposures from Natural Gas Cooking Burners: A Simulation-Based Assessment for Southern California*, 122 Env't Health Perspectives 43, 43–50 (2014), http://dx.doi.org/10.1289/ehp.1306673 (modeling exposure rates for gas stove pollutants and finding that "62%, 9%, and 53% of occupants are routinely exposed to NO_2, CO, and HCHO levels that exceed acute health-based standards and guidelines" and that "reducing pollutant exposures from [gas stoves] should be a public health priority."); John Manuel, *A Healthy Home Environment?*, 107 Env'tl. Health Perspectives 352, 352–57 (1999), https://doi.org/10.1289/ehp.99107a352 (finding that gas furnaces and other gas appliances can be sources of unsafe indoor carbon monoxide concentrations); Nasim A. Mullen et al., *Impact of Natural Gas Appliances on Pollutant Levels in California Homes*, Lawrence Berkeley Nat'l Lab'y (Dec. 2012), https://eta-publications.lbl.gov/sites/default/files/impact_of_natural_gas_appliances.pdf (finding that concentrations of NO_2, NO_x, and carbon monoxide were associates with use of gas appliances); Dr. Zhu et al., *Effects of Residential Gas Appliances on Indoor and Outdoor Air Quality and Public Health in California*, UCLA Fielding School of Pub. Health, (Apr. 2020), https://ucla.app.box.com/s/xyzt8jc1ixnetiv0269qe704wu0ihif7 (finding that gas combustion appliances are associated with higher concentrations of NO_2, NO_x, CO, fine particulate matter, and formaldehyde in indoor air, and discussing the health impacts of acute and chronic exposure to each pollutant).

California would result in significant health benefits."[21] Accordingly, projects that permit gas appliances such as stoves have significant air quality impacts under CEQA.

Gas appliances contribute to indoor air pollution even when they are not turned on. A recent study sampling the gas supply to home appliances also found additional harmful pollutants present, including the Hazardous Air Pollutants benzene and hexane in 95% and 98% of samples, respectively, among others.[22] These pollutants have serious health impacts, particularly given that residential appliances can last for upwards of ten years, and residents may be repeatedly exposed to their pollution multiple times daily. For example, in addition to being a known carcinogen, non-cancer long-term health effects of exposure to benzene include "harmful effects on the bone marrow," "excessive bleeding," and can compromise the immune system.[23] Similarly, "[c]hronic inhalation exposure to hexane is associated with sensorimotor polyneuropathy in humans, with numbness in the extremities, muscular weakness, blurred vision, headache, and fatigue," and animal studies have shown "pulmonary lesions" as well as damage to reproductive organs following chronic inhalation exposure.[24] These pollutants were present in the gas supplied to home appliances prior to combustion, and a 2022 study also found that most gas stoves leak supply gas "continuously" even while turned off.[25]

II. Building Electrification is Feasible and Effective Mitigation to Reduce Project GHG, Energy, and Health Impacts.

A lead agency may not lawfully approve a project where "there are feasible alternatives or feasible mitigation measures available which would substantially lessen [its] significant environmental effects."[26] Only when feasible mitigation measures have been exhausted may an agency find that overriding considerations exist that outweigh the significant environmental effects. [27] This mandate—to avoid, minimize and mitigate significant adverse effects where feasible—has been described as the "most important" provision of the law.[28]

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[21] CARB Resolution 20-32, *California Indoor Air Quality Program Update*, at 2 (Nov. 19, 2020), https://ww3.arb.ca.gov/board/res/2020/res20-32.pdf.
[22] Drew R. Michanowicz et al., *Home is Where the Pipeline Ends: Characterization of Volatile Organic Compounds Present in Natural Gas at the Point of the Residential End User*, Environ. Sci. Technol. 2022, 56, 10258–10268 at 10262 (Jun. 2022), https://pubs.acs.org/doi/pdf/10.1021/acs.est.1c08298.
[23] *See* Centers for Disease Control and Prevention, *Facts about Benzene*, https://emergency.cdc.gov/agent/benzene/basics/facts.asp#:~:text=(Long%2Dterm%20exposure%20means%20exposure,increasing%20the%20chance%20for%20infection.
[24] U.S. Env. Prot. Agency, *Hexane*, https://www.epa.gov/sites/default/files/2016-09/documents/hexane.pdf.
[25] Eric D. Lebel, et al., Methane and NO_x Emissions from Natural Gas Stoves, Cooktops, and Ovens in Residential Homes, Environ. Sci. Technol. 2022, 56, 4, at 2534 (Jan. 27, 2022), https://doi.org/10.1021/acs.est.1c04707.
[26] Pub. Res. Code § 21002.
[27] *Id.* § 21081; *see also* CEQA Guidelines 15091(a).
[28] *Sierra Club v. Gilroy City Council*, 222 Cal. App. 3d 30, 41 (1990).

Eliminating natural gas use in new buildings is feasible mitigation that will substantially lessen the Project's GHG, energy, and air quality/health impacts. For example, in *Residential Building Electrification in California*, Energy and Environmental Economics ("E3") determined that "electrification is found to reduce total greenhouse gas emissions in single family homes by approximately 30 to 60 percent in 2020, relative to a natural gas-fueled home."[29] Moreover, "[a]s the carbon intensity of the grid decreases over time, these savings are estimated to increase to approximately 80 to 90 percent by 2050, including the impacts of upstream methane leakage and refrigerant gas leakage from air conditioners and heat pumps."[30] As shown in the graph below, the GHG savings from heat pumps are substantial today and will only increase as California continues to decarbonize its grid as required under SB 100.

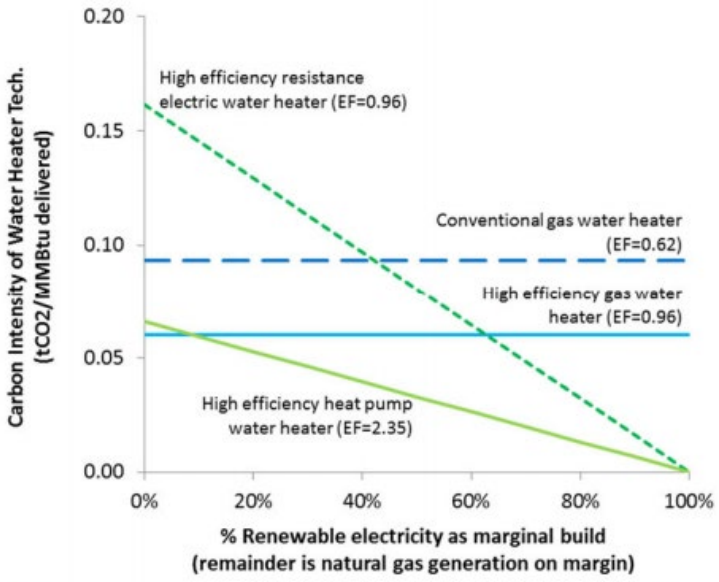


Figure 3. Carbon intensity of water heater technologies, as a function of renewable electricity percentage.
Source: Author's calculations [31]

In contrast, because gas appliances will generate the same level of pollution over their lifetime, their emissions relative to electric alternatives will increase over time and increasingly interfere with achievement of California's climate objectives.

Numerous local jurisdictions have also adopted all-electric building policies for a variety of building types, demonstrating the feasibility of all-electric new construction. For example, San Francisco adopted an ordinance effective June 2021 prohibiting gas in new construction for

[29] E3, *Residential Building Electrification in California*, at iv (Apr. 2019), https://www.ethree.com/wp-content/uploads/2019/04/E3_Residential_Building_Electrification_in_California_April_2019.pdf.
[30] *Id.*
[31] Amber Mahone et al., *What If Efficiency Goals Were Carbon Goals*, at 9-7, American Council for an Energy-Efficient Economy (2016), https://aceee.org/files/proceedings/2016/data/papers/9_284.pdf.

all building types, with narrow exceptions.[32] Several other California municipalities have adopted similar legislation, including Berkeley, San Luis Obispo, Half Moon Bay, and the City of Los Angeles.[33]

All-electric new construction is also a feasible mitigation measure to avoid the health impacts of gas, particularly the indoor air pollution impacts in residential buildings. For example, Marin Clean Energy developed its Low-Income Families and Tenants ("LIFT") Pilot Program to reduce energy burdens and improve quality of life for residents in income-qualified multifamily properties through energy efficiency, electrification, and health, safety, and comfort upgrades.[34] An evaluation of the LIFT Pilot found that on a per dwelling basis, participants who received heat pump replacements for gas or propane heating equipment saw reductions of greenhouse gases by over one ton of CO_2 per dwelling, NO_x reductions of close to 1 pound, and carbon monoxide reductions of more than 2 pounds.[35] Notably, because the national health and safety limit for carbon monoxide is 1 pound annually, residents had been living with unsafe carbon monoxide levels. Heat pump installation virtually eliminated this pollution source.[36] In addition to direct health benefits from reduced pollution, tenants reported increased comfort, with "indoor air temperature being just right even on very hot days," better air quality and reduced noise.[37] Electrifying gas end uses in buildings demonstrably mitigates not only building emissions but their associated health and safety impacts.

All-electric building design is also economically feasible under CEQA. When considering economic feasibility of alternatives under CEQA, courts consider "whether the marginal costs of the alternative as compared to the cost of the proposed project are so great that

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[32] San Francisco Building Code § 106A.1.17.1, https://codelibrary.amlegal.com/codes/san_francisco/latest/sf_building/0-0-0-92027.

[33] *See, e.g.,* San Luis Obispo Ordinance No. 1717, http://opengov.slocity.org/WebLink/DocView.aspx?id=162695&dbid=0&repo=CityClerk, (prohibiting natural gas in new construction effective January 1, 2023, with narrow commercial availability and viability exceptions); Los Angeles Ordinance No. 187714 (approved Dec. 10, 2022) (requiring all newly constructed buildings to be all-electric with narrow exceptions for certain food service establishments, effective January 23, 2023), https://clkrep.lacity.org/onlinedocs/2022/22-0151_ord_187714_1-23-23.pdf; Half Moon Bay Municipal Code § 14.06.030, https://www.codepublishing.com/CA/HalfMoonBay/#!/HalfMoonBay14/HalfMoonBay1406.html#14.06.030, (requiring all-electric construction for all new buildings, effective March 17, 2022). *See also* Sierra Club, *California's Cities Lead the Way on Pollution-Free Homes and Buildings*, https://www.sierraclub.org/articles/2021/07/californias-cities-lead-way-pollution-free-homes-and-buildings, (running list of California municipalities with gas-free buildings commitments and electrification building codes).

[34] DNV, MCE Low-Income Families and Tenants Pilot Program Evaluation at 1 (Aug 5. 2021) https://www.mcecleanenergy.org/wp-content/uploads/2022/08/MCE-Low-Income-Families-and-Tenants-Pilot-Program-Evaluation_08262022.pdf.

[35] *Id.* at 28.

[36] *Id.* at 29.

[37] *Id.* at 4, 35.

a reasonably prudent [person] would not proceed with the [altered project]."[38] That is, even if an alternative is *more* expensive than the original plan, "[t]he fact that an alternative may be more expensive or less profitable is not sufficient to show that the alternative is financially infeasible."[39]

All-electric building design for new construction is financially feasible because it is now cheaper than mixed-fuel construction.[40] The CEC has found that capital costs for all-electric single family homes are "several thousand dollars less expensive than mixed-fuel homes."[41] For mid-rise multi-family homes, "[a]n average reduction of $3,300 per unit was found" by avoiding the costs of gas piping, venting, and trenching to connect to the gas system.[42] Indeed, as noted in Redwood Energy's A Zero Emissions All-Electric Multifamily Construction Guide, "[i]n the downtown of a city like Los Angeles, just trenching and piping gas to an apartment building in a busy street can cost $140,000."[43] Moreover, there are additional embedded savings from faster build-out (related to not having to install gas plumbing and piping inside of the home), and by installing one heat pump instead of a separate furnace and air conditioning. As the CPUC is eliminating gas line extension allowances for all customer classes starting in July 2023, the infrastructure buildout to support gas hookups will raise costs of projects connecting to the gas system even more than before, when line extensions were subsidized.[44] Additionally, as discussed above, the 2022 update to the Title 24 Building Code already requires heat pumps as a baseline for space or water heating, and requires panel upgrades and other space modifications in any new mixed-fuel homes to ensure they are electric-ready when they inevitably convert to all-

---

[38] *SPRAWLDEF v. San Francisco Bay Conservation and Development Comm'n* (2014) 226 Cal. App. 4th 905, 918 (citing *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal. App. 4th 587, 600).
[39] *Id.* (citing *Center for Biological Diversity v. Cty. of San Bernardino* (2010) 185 Cal. App. 4th 866, 833).
[40] *See* CARB, Draft 2022 Scoping Plan, Appendix F: Building Decarbonization, at 14–15 (May 2022) (finding that "all-electric new construction is one of the most cost-effective near-term applications for building decarbonization efforts," and that all-electric new construction is crucial in particular because "it is less costly to build, avoids new pipeline costs to ratepayers, and avoids expensive retrofits later."), https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp-appendix-f-building-decarbonization.pdf.
[41] *See* CEC, Final 2021 Integrated Energy Policy Report Volume I: Building Decarbonization at 89 (Feb. 2022), https://efiling.energy.ca.gov/GetDocument.aspx?tn=241599, (citing E3, *Residential Building Electrification in California: Consumer Economics, Greenhouse Gases and Grid Impacts*, https://www.ethree.com/wp-content/uploads/2019/04/E3_Residential_Building_Electrification_in_California_April_2019.pdf.).
[42] CEC, *California Building Decarbonization Assessment*, at 83 (Aug. 13, 2021) ("CEC Building Decarbonization Assessment"), https://efiling.energy.ca.gov/GetDocument.aspx?tn=239311.
[43] Redwood Energy, A Zero Emissions All-Electric Multifamily Construction Guide at 2 (2019), https://fossilfreebuildings.org/ElectricMFGuide.pdf
[44] R. 19-01-011, Phase III Decision Eliminating Gas Line Extension Allowances, Ten-Year Refundable Payment Option, and Fifty Percent Discount Payment Option Under Gas Line Extension Rules, (Aug. 8, 2022), https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M496/K415/496415627.PDF.

electric.[45] As a result, mixed-fuel design in new construction is likely *less* financially feasible than all-electric design, in addition to imposing significant GHG, energy, and health impacts.

Now is the critical window for the City to jump-start this transition away from gas to clean energy buildings. CEQA is an essential vehicle to take all feasible action to reduce GHGs and limit further expansion of gas infrastructure. To comply with CEQA, we urge incorporation of all-electric building design into the Project.

Please contact Rebecca Barker at rbarker@earthjustice.org, and Matt Vespa at mvespa@earthjustice.org with any questions or concerns, and please include each of us in future notifications on the Project's development.

Sincerely,

Matt Vespa
Senior Attorney
Earthjustice
50 California Street, Suite 500
San Francisco, CA 94111
Email: mvespa@earthjustice.org
Telephone: (415) 217-2123

Rebecca Barker
Associate Attorney
Earthjustice
50 California Street, Suite 500
San Francisco, CA 94111
Email: rbarker@earthjustice.org
Telephone: (415) 217-2056

[45] *See* CEC, 2022 Building Energy Efficiency Standards Summary, at 9 (Aug. 2021), https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf.

From: Rod Stinson
To: Briette Shea
Subject: FW: Bridle Concerns
Date: Monday, January 30, 2023 8:39:42 AM
Attachments: image001.png

Same.

Roderick Stinson

Vice President

phone. (916) 372-6100 1501 Sports Drive, Suite A Sacramento, CA 95834
fax. (916) 419-6108 www.raneymanagement.com

RANEY PLANNING & MANAGEMENT, INC. | 20 years

From: Nolthenius, Erik <enolthenius@brentwoodca.gov>
Sent: Friday, January 27, 2023 4:21 PM
To: Cindy Gnos <cindygnos@raneymanagement.com>; Kersevan, Steven <skersevan@brentwoodca.gov>; Murphy, Karen W. <KMurphy@bwslaw.com>; Rod Stinson <rods@raneymanagement.com>; Tsubota, Miki <mtsubota@brentwoodca.gov>; Wisinski, Katherine <kwisinski@brentwoodca.gov>
Cc: Drummond, April <adrummond@brentwoodca.gov>
Subject: FW: Bridle Concerns

While these concerns are not related to the NOP, I wanted to make sure everyone has them for reference.

From: Kristil Parrish <kp@truetechsolutions.com>
Sent: Friday, January 27, 2023 4:14 PM
To: Nolthenius, Erik <enolthenius@brentwoodca.gov>
Subject: Bridle Concerns

CAUTION – EXTERNAL SENDER

I am opposed to the Bridal Gate Proposal. My husband and I and our 2 young children live on a court (Hawkstone) just off of Presidio where this proposed and ill-conceived new Bridle Gate development will further congest an already hazardously trafficked and unchecked thoroughfare between the Raley's parking lot and several schools on the other side. I fear for the safety of all the children in our neighborhood due to the constant traffic of speeding cars up and down Presidio. The increased traffic alone from this project is enough of a reason for this proposal to be shutdown. As well as, our schools are overcrowded as it is and can not handle anymore students.

Furthermore, the building on capped oil wells is a known public health hazard and is another reason this project should be denied.

There should be zero further developments in any way until that is addressed let alone something as poorly thought out as
the Bridle Gate development. It's a clear and obvious money grab with a complete disregard for the many negative impacts it will have on the citizens of Brentwood.

Thank you,
Kristil Parrish

From: Rod Stinson
To: Briette Shea
Subject: FW: Bridal Gate Project - REIR NOP - Comments
Date: Wednesday, January 25, 2023 8:39:29 AM
Attachments: image001.png

Some more.

Thanks,

Roderick Stinson
Vice President

phone. (916) 372-6100 1501 Sports Drive, Suite A Sacramento, CA 95834
fax. (916) 419-6108 www.raneymanagement.com

RANEY PLANNING & MANAGEMENT, INC. | 20 years

From: Nolthenius, Erik <enolthenius@brentwoodca.gov>
Sent: Tuesday, January 24, 2023 6:13 PM
To: Rod Stinson <rods@raneymanagement.com>
Cc: Cindy Gnos <cindygnos@raneymanagement.com>; Murphy, Karen W. <KMurphy@bwslaw.com>; Wisinski, Katherine <kwisinski@brentwoodca.gov>
Subject: FW: Bridal Gate Project - REIR NOP - Comments

FYI

From: susanrharper@comcast.net <susanrharper@comcast.net>
Sent: Tuesday, January 24, 2023 5:35 PM
To: Nolthenius, Erik <enolthenius@brentwoodca.gov>
Subject: Bridal Gate Project - REIR NOP - Comments

CAUTION – EXTERNAL SENDER

Eric,

I would like to contribute my concerns about the Bridal Gate project. I feel, while the document covers a lot of topics, there are several key issues that are not addressed.

1. Traffic
    a. The development will have an entrance/exit at the intersection of St. Regis and San Jose. This will bring a tremendous amount of traffic into Brentwood Hills/Shadow Lakes as well as down San Jose past Loma Vista School. These areas already have a tremendous amount of traffic causing overwhelming traffic jams.

i. Traffic through Shadow Lakes to Heritage High School and Adams Middle School continues to back up into Shadow Lakes as well as on Balfour road. Residents leaving Shadow Lakes going to work or elsewhere also have to sit in the backups caused by the school traffic.
ii. It is not safe or fair for the residents of Brentwood Hills/Shadow Lakes to become an even worse thoroughfare through these neighborhoods.

b. I would like to see some traffic impact studies that include morning times for these areas.

2. Schools
   a. Heritage High School is already over crowded and has had to incur the expense of adding additional buildings. This of course creates the need for a larger staff.
   b. I would like to see some analysis of the impacts of adding more students at that addition of attendance area.
3. Fire and Police
   a. I do not see any topics to cover the impact on Fire and Police and increased staff etc to meet the need of the Brentwood citizens.
   b. I believe we are already stretched in these areas.
4. Benefit Analysis
   a. I do not see any analysis of the benefits of having the new project – other than the fees the city would get initially which are not long term.
   b. These short term gains are not shown to outweigh the long term problems.

I would like to also say that the city should be considering project that will benefit our city, and having a clear value of what it will bring. If we can present that then we should not do it. In this case there is way more negative impact than positive gain.

Thanks,

Susan Harper
2610 Presidio Dr.
925-813-8115

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Bridle Gate Project
NOP Scoping Meeting Comment Summary

Date: January 17, 2023
Time: 7:00 PM
Location: Brentwood Community Center

Verbal Comments (arranged in order of "appearance" of commenter):

Commenter 1 (Derek Evans – Contra Costa Resource Conservation District)

- Commenter expresses appreciation for the proposed retention basins.
- Commenter expresses desire for the project applicant to coordinate with the Contra Costa Resource Conservation District regarding species in the open space and basin areas on-site.

Commenter 2 (Danny Dohrmann)

- Commenter expresses dissatisfaction with the availability of the scope of the EIR.

Commenter 3 (Sandra Meyers)

- Commenter expresses concern about conflicts with City regulations regarding parks.

Commenter 4 (Victoria Wolfolk – Contra Costa Resource Conservation District)

- Commenter expresses the desire for a discussion of native plants in parks and parks impacts in the EIR.

Appendix C

City of Brentwood
Community Development Department

Revised Bridle Gate Project

Initial Study

May 2023

Prepared by

RANEY PLANNING & MANAGEMENT, INC. 20 years
1501 Sports Drive, Suite A, Sacramento, CA 95834

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APPENDICES:

Appendix A: Geotechnical Exploration
Appendix B: Preliminary Stormwater Control Plan
Appendix C: Phase I Environmental Site Assessment

INITIAL STUDY

May 2023

A. BACKGROUND

1. Project Title: Bridle Gate Project

2. Lead Agency Name and Address: City of Brentwood
Community Development Department
Planning Division
150 City Park Way
Brentwood, CA 94513

3. Contact Person and Phone Number: Erik Nolthenius
Planning Manager
(925) 516-5137

4. Project Location: Terminus of Old Sand Creek Road, West of State Route 4
Brentwood, CA
APNs 019-082-009 and 019-082-010

5. Project Sponsor's Name and Address: Discovery Builders, Inc.
4021 Port Chicago Highway
Concord, CA 94524
(925) 671-7711

6. Existing and Proposed General Plan Designation: Regional Commercial (RC)
Residential-Low Density (R-LD)
Permanent Open Space (P-OS)
Park (P)

7. Existing and Proposed Zoning Designation: Planned Development Zone No. 36 (PD-36)

8. Surrounding Land Uses and Setting:

The project site consists of two parcels totaling approximately 126.86 acres in the City of Brentwood, California. Currently, the project site is vacant and covered with grasses and weedy vegetation. The project site is bounded by Old Sand Creek Road to the north, State Route (SR) 4 to the east, a single-family residential development (Brentwood Hills) to the south, and the edge of the Brentwood Planning Area and the City of Antioch's city limits to the west. A small segment of existing San Jose Avenue bounds the project site at the site's farthest southeastern corner. The western terminus of Sand Creek Road, constructed as part of the interchange with SR 4, is located adjacent to the eastern site boundary.

9. Project Description Summary:

   The proposed project would include the development of 286 single-family residences, as well as associated improvements within the project site, including parks, stormwater detention and treatment areas, utility connections, and construction of an internal roadway network on approximately 92.96 acres. The remaining 33.9 acres of land located north of the future Sand Creek Road extension and designated for Regional Commercial uses by the General Plan is not currently proposed for development. Implementation of the proposed project would potentially require approval of a Rezone to amend the PD-36 zoning district, a Vesting Tentative Subdivision Map (VTSM), and Design Review.

10. Status of Native American Consultation Pursuant to Public Resources Code Section 21080.3.1:

    In compliance with Assembly Bill (AB) 52 (Public Resources Code Section 21080.3.1), the City distributed project notification letters to the following tribes: Wilton Rancheria, Chicken Ranch Rancheria of Me-Wuk Indians, Guidiville Indian Rancheria, Nashville Enterprise Miwok-Maidu-Nishinam Tribe, Tule River Indian Tribe, The Ohlone Indian Tribe, North Valley Yokuts Tribe, Muwekma Ohlone Indian Tribe of the SF Bay Area, Wukasche Indian Tribe/Eshom Valley Band, The Confederated Villages of Lisjan, Indian Canyon Mutsun Band of Costanoan, and Amah Mutsun Tribal Band of Mission San Juan Bautista. The letters were distributed on October 28, 2022. Requests to consult were not received from any of the aforementioned tribes.

B. SOURCES

All of the technical reports and modeling results used for the project analysis are included as appendices to the Draft REIR. The following documents are referenced information sources used for the purposes of this Initial Study (IS) and are available for viewing on the City's website at https://www.brentwoodca.gov/government/community-development/planning/ceqa-documents:

1. Balance Hydrologics, Inc. *Preliminary Stormwater Control Plan for the Bridle Gate Project, City of Brentwood*. February 18, 2022.
2. Brentwood Police Department. *2021 PD Performance Report.* Available at: https://www.brentwoodca.gov/home/showpublisheddocument/4840/637835438572570000. Accessed April 2023.
3. California Department of Conservation. *California Important Farmland Finder.* Available at: https://maps.conservation.ca.gov/dlrp/ciff/. Accessed April 2023.
4. California Department of Forestry and Fire Protection. *Contra Costa County Very High Fire Hazard Severity Zones in LRA.* January 7, 2009.
5. California Department of Resources Recycling and Recovery (CalRecycle). *Facility/Site Summary Details: Keller Canyon Landfill (07-AA-0032)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/4407?siteID=228. Accessed April 2023.
6. California Geologic Survey. *Seismic Hazard Zone Report for the Brentwood 7.5-Minute Quadrangle, Contra Costa County, California.* 2018.
7. California Regional Water Quality Control Board, Central Valley Region. *Monitoring Well Abandonment, ENEA, Brentwood Oil and Gas Field, Contra Costa County.* March 29, 2001.
8. City of Brentwood. *2014 Brentwood General Plan EIR* [pg. 3.1-5]. July 22, 2014.

9. City of Brentwood. *2020 Urban Water Management Plan.* June 2021, revised December 2021.
10. City of Brentwood. *City of Brentwood Development Fee Program, 2022 Update.* Available at: https://www.brentwoodca.gov/home/showpublisheddocument/4664/637921133863100000. Accessed May 4, 2023.
11. ENGEO Incorporated. *Geotechnical Exploration, Ellisondo Parcel, Brentwood, California.* September 15, 1999.
12. ENGEO Incorporated. *Subject: Bridle Gate, Sand Creek Road and San Jose Avenue, Brentwood, California, Phase I Environmental Site Assessment.* May 6, 2020.
13. United States Department of Agriculture, Natural Resources Conservation Service. *Web Soil Survey.* Available at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed April 2023.
14. United States Department of Agriculture, Soil Conservation Service. *Soil Survey of Contra Costa County, California*. September 1977.
15. Windmiller Consulting, Inc. *Bridle Gate Updated Cultural Resources Assessment, Brentwood, Contra Costa County.* April 2020.

C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Potentially Significant" as indicated by the checklist on the following pages.

☐ **Aesthetics**	☐ **Agriculture and Forestry Resources**	✖ **Air Quality**
✖ **Biological Resources**	☐ **Cultural Resources**	✖ **Energy**
☐ **Geology and Soils**	✖ **Greenhouse Gas Emissions**	✖ **Hazards and Hazardous Materials**
☐ **Hydrology and Water Quality**	☐ **Land Use and Planning**	☐ **Mineral Resources**
✖ **Noise**	☐ **Population and Housing**	☐ **Public Services**
☐ **Recreation**	✖ **Transportation**	☐ **Tribal Cultural Resources**
☐ **Utilities and Service Systems**	☐ **Wildfire**	✖ **Mandatory Findings of Significance**

D. DETERMINATION

On the basis of this initial study:

☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	Date
Erik Nolthenius, Planning Manager	City of Brentwood
Printed Name	For

E. BACKGROUND AND INTRODUCTION

This IS identifies and analyzes the potential environmental impacts of the Bridle Gate Project (proposed project). The information and analysis presented in this document is organized in accordance with the order of the California Environmental Quality Act (CEQA) checklist in Appendix G of the CEQA Guidelines.

In July of 2014, the City of Brentwood adopted a comprehensive update to the City's General Plan and certified an associated Environmental Impact Report (EIR). Where applicable, supplemental information in this IS has been drawn from the 2014 Brentwood General Plan update and associated EIR, and both documents are incorporated by reference in this IS.

On June 6, 2006, following the City Council's approval of the necessary General Plan amendment and rezone, the City of Brentwood Planning Commission approved the first version of the Bridle Gate subdivision map. Commensurate with that approval, an IS/MND was adopted, which identified that all impacts resulting from the project could be reduced to a less-than-significant level with implementation of mitigation measures.

A revised version of the Bridle Gate Project was later proposed, and due to substantial changes to the project, an EIR was prepared in 2020. However, the City Council denied the revised version of the project on March 9, 2021, and the EIR was not certified.

A subsequent application for the project was submitted to the City of Brentwood in late 2021 and was deemed complete in June 2022. Based on the analysis of this IS, the City has determined that a Revised EIR (REIR) is the appropriate CEQA document for the current version of the Bridle Gate Project.

The mitigation measures prescribed for environmental effects described in this IS would be implemented in conjunction with the project, as required by CEQA. In addition, findings and a project Mitigation Monitoring and Reporting Program (MMRP) would be adopted in conjunction with approval of the project.

F. PROJECT DESCRIPTION

The following provides a description of the project site's current location and setting, as well as the proposed project components and the discretionary actions required for the project.

Project Location and Setting

The project site consists of approximately 126.86 acres in the city of Brentwood (see Figure 1 and Figure 2) and is identified by the Contra Costa County Assessor as Assessor's Parcel Numbers (APNs) 019-082-009 and 019-082-010. The project site is bounded by Old Sand Creek Road and Priority Area 1 to the north, SR 4 to the east, a single-family residential development (Brentwood Hills) to the south, and the edge of the Brentwood Planning Area and the City of Antioch's city limits to the west.

A small segment of existing San Jose Avenue bounds the project site at the site's farthest southeastern corner. The western terminus of Sand Creek Road (not to be confused with Old Sand Creek Road) is located adjacent to the eastern site boundary. Sand Creek flows west to east through the northern portion of the project site and supports both native riparian vegetation and a variety of landscaped or planted ornamentals. The remainder of the project site is currently vacant and covered with grasses and weedy vegetation.

Figure 1
Regional Project Location



Figure 2
Project Site Boundaries



According to the City's General Plan, the project site is designated Regional Commercial (RC) north of the planned Sand Creek Road alignment, Residential-Low Density (R-LD) south of the Sand Creek Road alignment, Permanent Open Space (P-OS) along the southwest boundary of the site, and Park (P) along the west boundary of the site south of the Sand Creek Road alignment (see Figure 3). The site is zoned Planned Development No. 36 (PD-36).

According to the United States Geological Survey (USGS) Brentwood Quadrangle, the project site is located within the Brentwood Oil and Gas Field. Based on Phase I and Phase II Environmental Site Assessments prepared for the proposed project by ENGEO, Inc., the project site previously contained seven active oil production wells and an oil tank farm that facilitated oil production and waste treatment.[1] In addition, the site previously contained 24 active groundwater monitoring wells. The oil wells, tank farm, groundwater monitoring wells, and associated facilities have all been properly abandoned under the oversight of the California Regional Water Quality Control Board, Central Valley Region (RWQCB). RWQCB letters dated December 19, 1996, July 7, 2000, and March 29, 2001 confirm that all of the former oil wells, tank farm, and monitoring wells were remediated, and further investigation and/or monitoring is not required.[2] Development of the proposed project would require the provision of appropriate setbacks from abandoned oil wells as dictated by Chapter 17.680 of the Brentwood Municipal Code.

The central and western portions of the project site contain moderately sloping hillsides along a northwesterly trending ridge. The northeastern and eastern portions of the site consist of gently easterly sloping topography ranging in elevation from approximately 120 feet above mean sea level (msl) to approximately 160 feet above msl. The highest elevation at the site is along the ridge in the southwestern portion of the site, at an approximate elevation of 230 feet above msl.

Project Components

The proposed project would require approval of a VTSM to develop 286 single-family residences, as well as associated improvements within the project site. The proposed project would also require approval of Design Review for the home designs, landscaping, and associated improvements. A potential Rezone to amend the PD-36 development standards is discussed below, as well as each of the project components.

Vesting Tentative Subdivision Map

The proposed project would require approval of a VTSM to develop 286 single-family residences, as well as associated improvements within the project site, including parks, open space, stormwater detention and treatment areas, utility connections, and construction of an internal roadway network on approximately 92.96 acres (see Figure 4). The 33.9 acres of land located north of the future Sand Creek Road extension and designated for Regional Commercial uses by the General Plan is not proposed for development in this application and is shown as a designated remainder on the VTSM.

It should be noted that due to an update to the Assessor's Parcel Map that occurred subsequent to the proposed project's application submittal, the acreages for the project parcel shown in Figure 4 differ slightly from the acreages described above. However, the acreages recorded on the Assessor's Parcel Map and described above will be used for the purposes of the analysis. Each component of the VTSM is discussed in further detail below.

---

1 ENGEO, Inc. *Phase One Environmental Site Assessment, Bridle Gate, Brentwood, California.* May 6, 2020.
2 California Regional Water Quality Control Board, Central Valley Region. *Monitoring Well Abandonment, ENEA, Brentwood Oil and Gas Field, Contra Costa County.* March 29, 2001.

Figure 3
Existing General Plan Land Use Designation

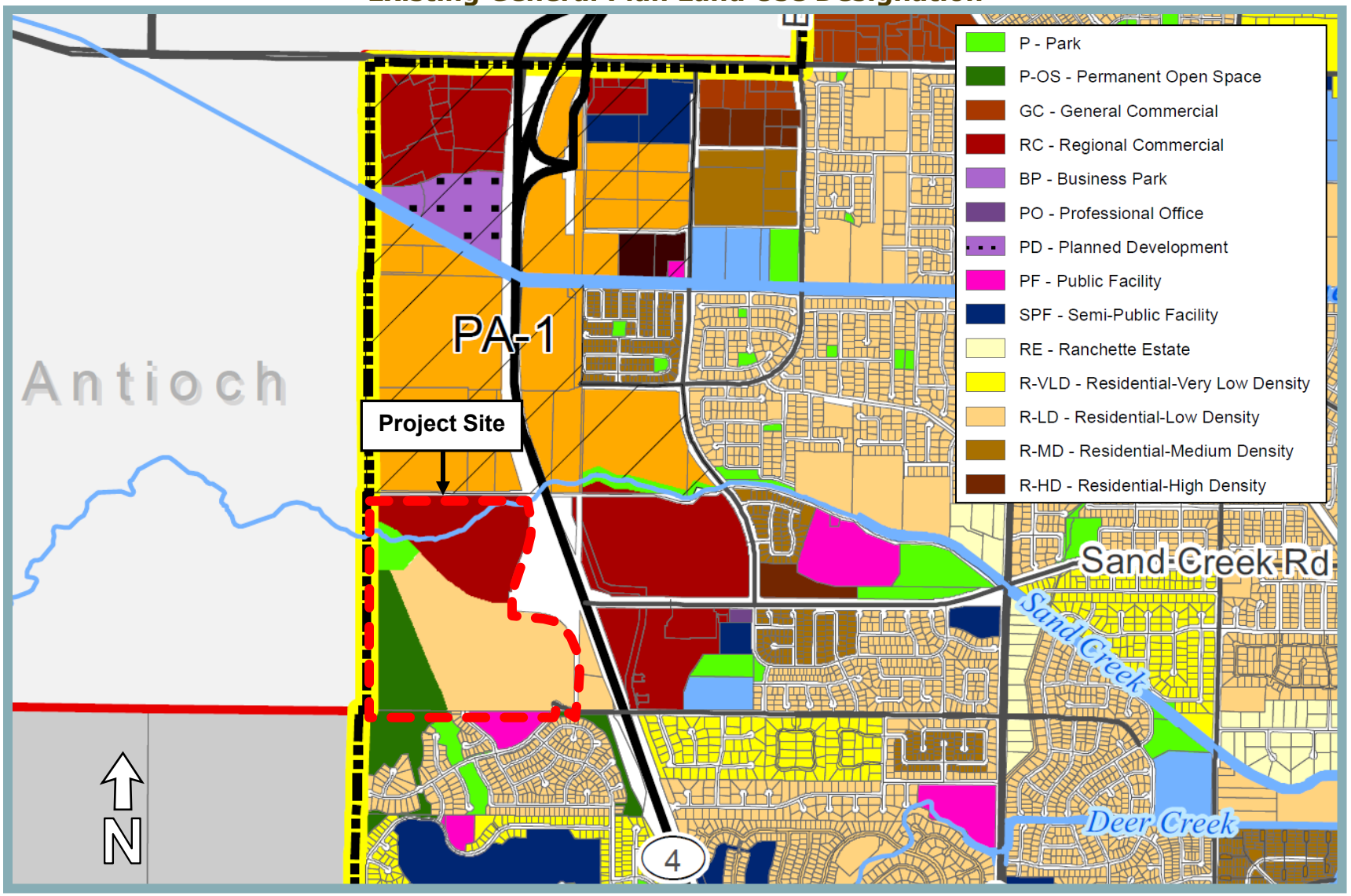
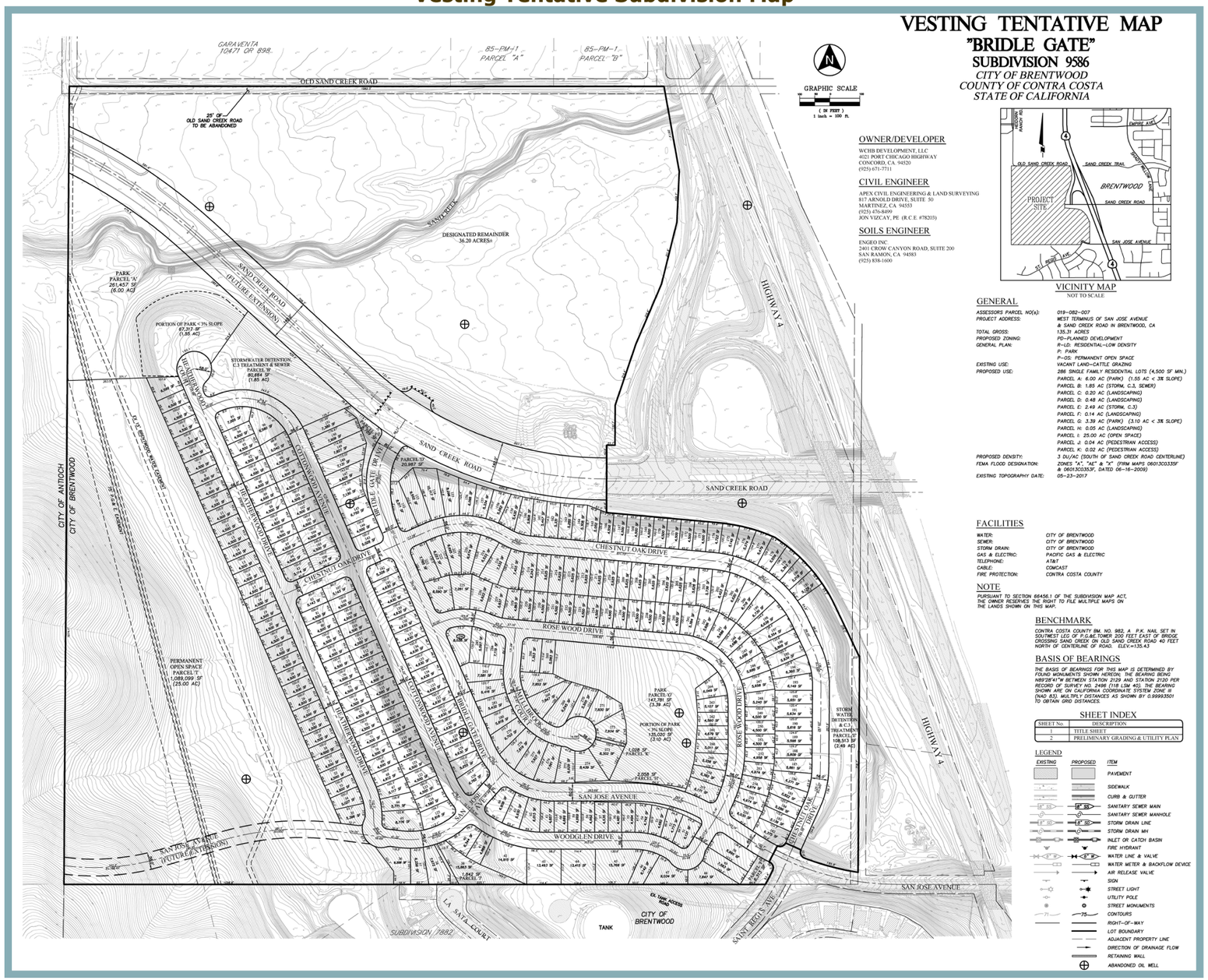


Figure 4
Vesting Tentative Subdivision Map



Note: The project site acreage in the map shown above has been updated pursuant to an update to the Assessor's Parcel Map that occurred subsequent to the proposed project's application submittal.

Single-Family Residential Development

The proposed project would include subdivision of the project site to construct 286 single-family homes in the southeastern portion of the site. Lot sizes would range from 4,500 to 15,863 square feet (sf), with one- to three-story residences ranging from 1,592 sf to 2,392 sf. Overall, a total of 61.961 acres of the project site would be developed with residential uses. Therefore, buildout of the single-family residential development would result in a density of approximately 4.62 dwelling units per acre (du/ac).[3] It should be noted that while this density calculation differs slightly from the density shown on the VTSM for the proposed project (see Figure 4), the density calculation included herein is based only on the portions of the site dedicated to residential use, consistent with guidance included in the City's General Plan.

Parks, Landscaping, and Open Space

Two parcels totaling 9.39 acres (six acres in the northwest portion of the site and 3.39 acres in the southeast portion of the site, respectively) would be dedicated to the City of Brentwood for use as public parks (see Figure 5, Parcel A and Parcel G). The parks would provide recreational amenities for residents of the proposed single-family subdivision. Landscaping elements would be provided throughout the proposed park areas and all other developed portions of the site consistent with City requirements.

As discussed previously, Sand Creek flows from west to east through the northern portion of the proposed project site. The 33.9 acres of land located north of the future Sand Creek Road extension (see below for road extension details) within the project site, which includes the majority of the portion of Sand Creek located within the site, is not proposed for development in this application. The remainder of the portion of Sand Creek located within the project site would be located within the proposed six-acre park. An additional 25 acres of permanent open space (Parcel I) would be located within the southwestern portion of the site.

Utilities and Drainage

Water and sewer service for the proposed project would be provided by the City of Brentwood. If not already completed by the City, the proposed project would be served by the extension of 16-inch water and 10-inch sewer lines within the portion of Sand Creek Road along the project frontage, which would then be connected to additional lines constructed within internal streets to serve the proposed development areas (see Figure 6).

Stormwater draining off impervious areas such as roofs, parking areas, and streets within the project site would be transported through new 18-inch storm drains to two bio-retention basins located in the northwestern portion of the site, southeast of the proposed six-acre park (Parcel B), and along the southeast boundary of the site (Parcel E), respectively.

Access and Circulation

The proposed project would include construction of new internal roadways and the extension of San Jose Avenue to the west.

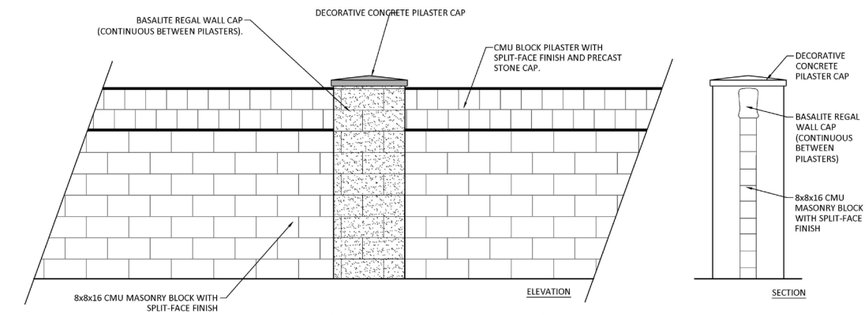
It should be noted that a separate City-initiated capital improvement project will construct the central 56-foot of roadway including two, 20-foot lanes and a 16-foot median, streetlights, wet and dry utilities, and a full width bridge (four-lane arterial) across Sand Creek Road, with one lane in each direction, from the westerly existing terminus at SR 4 to Heidorn Ranch Road to the northwest.

[3] 61.961 acres/286 single-family homes = 4.62 dwelling units per acre.

Figure 5
Landscaping Plan

BRIDLE GATE SUBDIVISION

BRENTWOOD, CALIFORNIA



MASONRY WALL SCHEMATIC (CONCEPTUAL)
NTS

STREET TREE MATRIX

SYM	BOTANICAL/ COMMON NAME	SIZE	WATER USE*
	ARBUTUS 'MARINA'/ STRAWBERRY TREE	15 GAL	LOW
	CELTIS SINENSIS/ CHINESE HACKBERRY	15 GAL	LOW
	GINKGO BILOBA/ MAIDENHAIR TREE	15 GAL	MED
	KOELREUTERIA BIPINNATA/ CHINESE FLAME TREE	15 GAL	LOW
	QUERCUS AGRIFOLIA/ COAST LIVE OAK	15 GAL	LOW

SHRUBS/ GROUNDCOVERS

SYM	BOTANICAL/ COMMON NAME	SIZE	WATER USE*
	ACCA SELLOWIANA/ PINEAPPLE GUAVA	5 GAL	LOW
	BERBERIS T. 'CRIMSON PYGMY'/ DWARF JAPANESE BARBERRY	1 GAL	MED
	CALLISTEMON V. 'LITTLE JOHN'/ DWARF BOTTLEBRUSH	1 GAL	LOW
	CEANOTHUS 'CONCHA'/ WILD LILAC	5 GAL	LOW
	CORREA PULCHELLA 'MISSION BELLS'/ AUSTRALIAN FUSCHSIA	5 GAL	LOW
	HEMEROCALLIS 'RED RUM'/ RED DAYLILY	1 GAL	MED
	LANTANA 'GOLD RUSH'/ GOLD RUSH LANTANA	1 GAL	LOW
	LAVANDULA A. 'MUNSTEAD'/ ENGLISH LAVANDER	1 GAL	LOW
	LIRIOPE MUSCARI/ BIG BLUE LILY TURF	1 GAL	MED
	MAHONIA AQUIFOLIUM 'O. F.'/ OREGON GRAPE	1 GAL	MED
	PITTOSPORUM T. 'VARIEGATA'/ VARIGATED TOBIRA	5 GAL	MED
	RIBES VIBURNIFOLIUM/ EVERGREEN CURRANT	5 GAL	LOW
	ROSA X 'NOARE'/ RED FLOWER CARPET ROSE	5 GAL	MED
	ROSMARINUS 'HUNTINGTON CARPET'/ ROSEMARY	1 GAL	LOW
	SANTOLINA ROSMARINIFOLIA/ SANTOLINA	1 GAL	LOW
	TRACHELOSPERMUM/ JASMINOIDES STAR JASMINE	1 GAL	MED

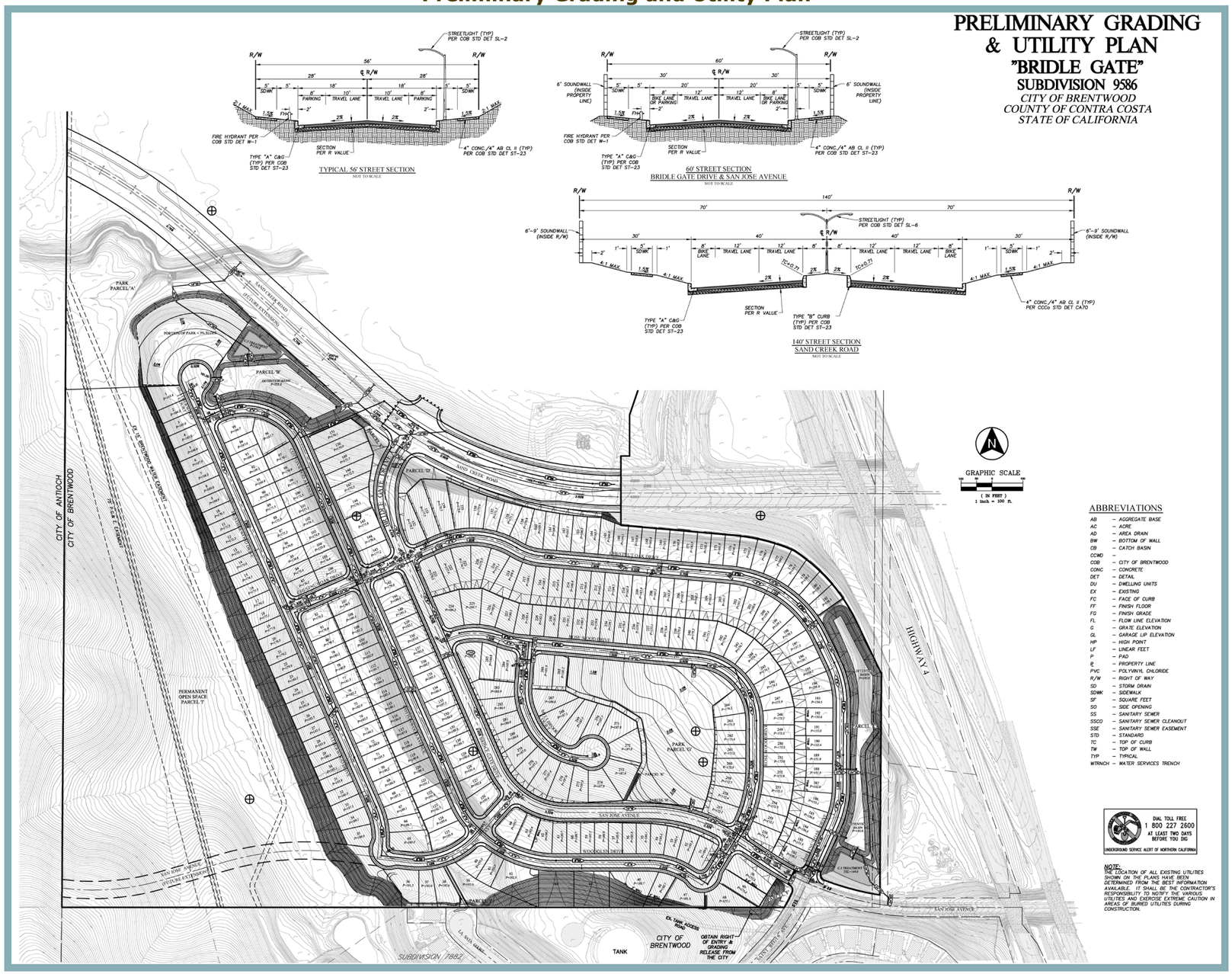
N

0' 125'
62' 250'
SCALE: 1"=125'-0"

NON-IRRIGATED BASIN/DETENTION HYDROSEED

SPECIES	LBS/ACRE
AGROSTIS EXARATA	2.0
DISTICHLIS	2.0
ELYMUS TRACHYCAULUS	4.0
ELYMUS TRITICOIDES RIO	3.0
HORDEUM BRACHYANTHERUM	4.0
HORDEUM DEPRESSUM	3.0
HORDEUM INTERCEDENS	3.0
MUHLENBERGIA RIGENS	0.5
PLANTAGO INSULARIS	20.0
SISRINCHIUM BELLUM	1.0
SPOROBOLUS AIRIOIDES	1.5
TRIFOLIUM WILLDENOVII	3.0
TOTAL:	47.0

Figure 6
Preliminary Grading and Utility Plan



The remaining Sand Creek Road improvements, which consist of the two additional lanes to create a four-lane arterial roadway, and the landscaping of the median and parkways, will be required to be completed by the developers of adjoining properties. The future Sand Creek Road extension would extend along the northern boundary of the proposed single-family residential portion of the project and connect to one of the new internal roadways to provide site access. Site access would also be provided by the proposed extension of San Jose Avenue.

An internal circulation system would be provided throughout the proposed single-family residential subdivision. Each internal roadway would be designed to meet current City standards and would include sidewalks on both sides. Pedestrian access would be provided in the form of sidewalks and trails throughout the proposed development, in conformance with City standards.

Design Review

In accordance with the Brentwood Zoning Ordinance, all proposed structures are subject to design review approval by the Planning Commission in order to foster a good design character through consideration of aesthetic and functional relationships to surrounding development. Therefore, because the proposed project would include the development of 286 single-family residences, the proposed project would be subject to Design Review approval.

Rezone

Correspondence from City staff has indicated that a Rezone to amend PD-36 may be required. The applicant disagrees. The potential Rezone would pertain to the development standards for PD-36 with respect to, among other things, lot sizes, setbacks, lot coverage, and consistency of use. Impacts related to a potential Rezone are addressed herein.

Discretionary Actions

The proposed project would require the following approvals from the City of Brentwood:

- Certification of the Environmental Impact Report, including adoption of Findings of Fact and a Statement of Overriding Considerations;
- Adoption of the Mitigation Monitoring and Reporting Program;
- A potential Rezone to amend the PD-36 Zoning District (see comment above);
- Vesting Tentative Subdivision Map; and
- Design Review.

G. ENVIRONMENTAL CHECKLIST

The following checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

Less-Than-Significant with Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level.

Less-Than-Significant Impact: Any impact that would not be considered significant under CEQA relative to existing standards.

No Impact: The project would not have any impact.

I. AESTHETICS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	✖	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	✖	☐
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	✖	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	✖	☐	☐

Discussion

a,b. Examples of typical scenic vistas would include mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other area designated for the express purpose of viewing and sightseeing. In general, a project's impact to a scenic vista would occur if development of the project would substantially change or remove a scenic vista.

The City of Brentwood is located in the eastern valley area of Contra Costa County, immediately east of the Diablo Range, which includes Mount Diablo. The City of Brentwood has recognized views of Mount Diablo, in addition to local hills and ridgelines and open space areas, as scenic resources to be preserved (see Policy COS 7-3 of the Conservation and Open Space Element of the Brentwood General Plan). Public spaces and/or public viewing or sightseeing areas within the vicinity of the project site include St. Regis Avenue, San Jose Avenue, La Sata Drive, Old Sand Creek Road, and SR 4, as well as Black Gold Park.

According to the 2014 Brentwood General Plan EIR and the Caltrans California Scenic Highway Mapping System, the City of Brentwood does not contain an officially designated State Scenic Highway.[4] However, it should be noted that a segment of SR 4 located adjacent to the eastern boundary of the project site is listed as an Eligible State Scenic Highway. In addition, the 2014 Brentwood General Plan EIR identifies SR 4 as a local scenic route due to the panoramic vistas of the Diablo Range and Mount Diablo afforded to drivers on the highway.

Given the sloping topography of the project site, views of the Diablo Range and Mount Diablo from SR 4 to the east of the project site are framed by rolling hillsides within the project site (see Figure 7). The proposed project would include grading of these hillsides within the southern portion of the site to accommodate the proposed residential subdivision. Figure 8 provides a photo simulation of views the project site looking west from SR 4 following project development.

The proposed grading activities would reduce the elevation of the higher portions of the project site and build up the lower portions such that the required cut and fill soils would balance across the project site.

[4] City of Brentwood. *2014 Brentwood General Plan EIR* [pg. 3.1-5]. July 22, 2014.

Figure 7
Existing View of Project Site from SR 4 Looking West



Figure 8
View of the Developed Project Site from SR 4 Looking West



While the project applicant would be required to refrain from unnecessary leveling or grading through compliance with General Plan Policy COS 7-2 ("Preserve the topography of Brentwood's hills by discouraging unnecessary leveling/grading activities prior to site-building on hillsides where development is permitted."), the proposed onsite grading cuts would avoid hauling soils to the site. In addition, because the site has been anticipated for development in the General Plan, some level of grading has been anticipated to occur at the project site.

The project site does not contain scenic resources, including any trees, rock outcroppings, or historic buildings, that would be visible from SR 4. The portions of the project site that are proposed for development are currently designated for buildout with residential and open space uses per the General Plan, and associated impacts related to scenic vistas and scenic resources were analyzed in the General Plan EIR. In addition, all development occurring on the project site would be subject to Design Review consistent with the criteria set forth in Section 17.820.007 of the City's Municipal Code. The Design Review process would strive to ensure that the proposed project would be compatible with other facilities in the immediate area and with the overall setting of the area as viewed from key vantage points in the community.

Based on the above, the proposed project would not have a substantial adverse effect on a scenic vista and would not damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway, and a ***less-than-significant*** impact would occur.

c. Implementation of the proposed project would change the existing visual setting from open grazing land to a suburban area consisting of a single-family residential subdivision as well as associated improvements within the project site, including parks, open space, stormwater detention and treatment areas, utility connections, and an internal roadway network. The following discussion provides an analysis of the changes in visual character and quality, as viewed from public areas in the project vicinity, that would be expected to occur as a result of the proposed project.

Distinguishing between public and private views is important, because private views are views seen from privately-owned land and are typically associated with individual viewers, including views from private residences. Public views are experienced by the collective public, and include views of significant landscape features and along scenic roads. According to CEQA (Public Resources Code, § 21000 et seq.) case law, only public views, not private views, are protected under CEQA. For example, in *Association for Protection of Environmental Values in Ukiah v. City of Ukiah* (1991) 2 Cal.App.4th 720, the court determined that "we must differentiate between adverse impacts upon particular persons and adverse impacts upon the environment of persons in general. As recognized by the court in *Topanga Beach Renters Assn. v. Department of General Services* (1976) 58 Cal.App.3d 188: '[A]ll government activity has some direct or indirect adverse effect on some persons. The issue is not whether [the project] will adversely affect particular persons but whether [the project] will adversely affect the environment of persons in general.'" Therefore, the focus in this section is on potential impacts to public views.

Public views in the project vicinity would consist primarily of views seen by motorists traveling on SR 4 and motorists, bicyclists, and pedestrians traveling on local roadways to the south of the project site, including La Sata Drive, St. Regis Avenue, and San Jose Avenue. Pre- and post-construction views of the project site looking west from SR 4 are

presented above in Figure 7 and Figure 8, respectively. As shown therein, while middleground views consisting of grazing land would be converted to residential uses, background views such as the Diablo Range, Mount Diablo, and rolling hills would not be impacted. Views of the site from the commercial shopping centers to the east of the site would be blocked by the elevated SR 4 roadway. Views of the site would also be available from Old Sand Creek Road to the north.

The proposed project would be consistent with the project site's existing General Plan land use designations. Thus, buildout of the project site would not result in a substantial change to the aesthetic character or quality of the site beyond what was previously analyzed in the General Plan EIR. In addition, the proposed project would include grading of the hill in the southwestern portion of the project site. All development occurring on the project site would be subject to Design Review consistent with the criteria set forth in Section 17.820.007 of the City's Municipal Code. The Design Review process would include a review of the exterior appearance of all proposed structures to ensure compliance with the City's established Design Guidelines. The project would be evaluated for consistency with the type and intensity of development in the surrounding areas. Furthermore, even though the proposed project would include grading of the hill in the southwestern corner of the site, Design Review would ensure the existing visual character of the site is not substantially reduced. Moreover, as noted above, the project applicant would be required to refrain from unnecessary leveling or grading through compliance with General Plan Policy COS 7-2 ("Preserve the topography of Brentwood's hills by discouraging unnecessary leveling/grading activities prior to site-building on hillsides where development is permitted").

Based on the above, the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings beyond what has been previously evaluated in the General Plan EIR. As such, a ***less-than-significant*** impact would occur.

d. The project site is currently vacant and undeveloped. Implementation of the proposed project would change the site to a developed residential site and would, therefore, introduce new sources of light and glare where little or none currently exists. Potential sources of light and glare associated with the proposed project would include interior light spilling through windows, exterior lighting on homes, street lighting on the internal street systems, and headlights from on-site vehicle traffic.

The single-family residences would be visually compatible with the existing Brentwood Hills residential neighborhood to the south, and, thus, light and glare associated with the southern portion of the project site would be relatively similar to what already occurs in the area. Nevertheless, given that the project site is currently undeveloped, the proposed project could be considered to create a new source of substantial light or glare which would adversely affect day or night-time views in the area, and a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

I-1. *In conjunction with development of the proposed project, the developer shall shield all on-site lighting so that nighttime lighting is directed within the project site and does not illuminate adjacent properties. A detailed*

lighting plan shall be submitted for the review and approval by the Community Development Department and the Public Works Department in conjunction with the project improvement plans. The lighting plan shall indicate the locations and design of the shielded light fixtures.

II. AGRICULTURE AND FOREST RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	✖	☐	☐
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	✖
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	✖
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	✖
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	✖	☐	☐

Discussion

a,e. The 126.86-acre project site is currently vacant and undeveloped. The site has historically been used for dry farming of grains or hay. Sand Creek flows west to east through the northern portion of the site and supports both native riparian vegetation and a variety of landscaped or planted ornamentals. The remainder of the project site is currently vacant and covered with grasses and weedy vegetation.

According to the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP), the project site is identified as Farmland of Local Importance.[5] The project site contains the following soil types: Capay Clay (0 to 3 percent slopes), Rincon Clay Loam (0 to 2 percent slopes), Sycamore Silty Clay Loam (Clay Substratum), Brentwood Clay Loam, Altamont Clay (15 to 30 percent slopes), and Altamont Clay (9 to 15 percent slopes).[6] According to the "Guide to Mapping Units" included in the Contra Costa County Soil Survey, all of the on-site soils are considered Class I, II, III, or IV, as defined by the United States Department of Agriculture Natural Resource Conservation Service.[7] Section 17.730.020 of the City of Brentwood's Agricultural Preservation Program states that, "agricultural land" requiring mitigation, includes but is not limited to: "[…] Class I, II, III, or IV soils as defined by the United States Department of Agriculture Natural Resource Conservation Service." As a result, all on-site agricultural land that would be converted for development of the proposed project would be subject to mitigation per the City's Agricultural Preservation Program.

[5] California Department of Conservation. *California Important Farmland Finder.* Available at: https://maps.conservation.ca.gov/dlrp/ciff/. Accessed April 2023.

[6] United States Department of Agriculture, Natural Resources Conservation Service. *Web Soil Survey*. Available at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed April 2023.

[7] United States Department of Agriculture, Soil Conservation Service. *Soil Survey of Contra Costa County, California*. September 1977.

It should be noted that the portions of the project site that would be developed by the proposed project are currently designated for residential and open space uses per the City's General Plan. In addition, the project site is not located within a portion of the City planning area designated Agricultural Conservation (AGCON) per the City's General Plan.

According to the General Plan EIR, conversion of farmlands associated with buildout of the planning area would result in a significant and unavoidable impact even with implementation of General Plan goals and policies aimed at preserving agricultural lands. Given the fact that the project site has been previously anticipated for buildout with residential and open space uses per the City's General Plan, conversion of farmland associated with buildout of the project site has been previously analyzed in the General Plan EIR. Furthermore, as noted above, the project will be required to comply with Chapter 17.730, Agricultural Preservation Program, of the Brentwood Municipal Code, which requires the project applicant to preserve agricultural lands by either:

1. Granting an agricultural conservation easement to or for the benefit of the City and/or a qualified land trust approved by the City on agricultural land deemed acceptable by the City. The easement shall encumber the exact acreage of the proposed entitlement, including any land used for park and recreation purposes and may encumber land acquired by the City and/or qualified land trust in fee; or
2. Paying an in-lieu fee established by City Council resolution. The fee may be adjusted annually but may not be increased by more than ten percent during any twelve-month period.

Without compliance with the City's agricultural preservation requirements, the project's conversion of agricultural land would result in a ***potentially significant*** impact.

Mitigation Measure(s)

Implementation of the following mitigation measure would mitigate potential impacts related to the loss of agricultural resources to a *less-than-significant* level.

II-1. *Prior to recordation of any final map or issuance of any grading permit, the developer shall comply with Chapter 17.730 (Agricultural Preservation Program) of the Brentwood Municipal Code in order to mitigate the project's conversion of agricultural land, as defined in Section 17.730.020, by granting an agricultural conservation easement or paying the current agricultural conservation City fee in effect at that time to provide funds to purchase conservation easements to mitigate the loss of farmland.*

b. The project site is not under Williamson Act contract, nor is the site zoned for agricultural use. The current zoning designation for the project site is PD-36. Therefore, the project would have ***no impact*** with respect to conflicting with agricultural zoning or Williamson Act contracts.

c,d. The project site is not considered forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), and is not zoned Timberland Production (as defined by Government Code section 51104[g]). Therefore, the proposed project would have ***no impact*** with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

III. AIR QUALITY. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	✖	☐	☐	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	✖	☐	☐	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	✖	☐	☐	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	✖	☐	☐	☐

Discussion

a-d. The City of Brentwood is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD).The proposed project would include the development of 286 single-family residences, as well as associated improvements within the project site, including parks, stormwater detention and treatment areas, utility connections, and construction of an internal roadway network. As such, development of the proposed project could result in emissions such that the project would have the potential to conflict with or obstruct implementation of the applicable air quality plan, result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under applicable federal and/or State ambient air quality standards, expose existing sensitive receptors to substantial pollutant concentrations, and/or result in emissions of concern (such as those leading to odors, emission of dust, or emissions considered to constitute air pollutants) adversely affecting a substantial number of people. Therefore, a ***potentially significant*** impact would result.

Further analysis of the above potential impact will be discussed in the Air Quality, Greenhouse Gas Emissions, and Energy chapter of the Bridle Gate Project REIR.

IV. BIOLOGICAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	✖	☐	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	✖	☐	☐	☐
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	✖	☐	☐	☐
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	✖	☐	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	✖	☐	☐	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	✖	☐	☐	☐

Discussion

a-f. The proposed project would include the development of 286 single-family residences, as well as associated improvements within the project site, including parks, stormwater detention and treatment areas, utility connections, and construction of an internal roadway network on a site that is currently vacant and covered with grasses and weedy vegetation. As such, development of the proposed project could result in impacts related to biological resources such that the project could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS); have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS; have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites; conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and/or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan. Therefore, a ***potentially significant*** impact could occur.

Further analysis of the above potential impact will be discussed in the Biological Resources chapter of the Bridle Gate Project REIR.

V. CULTURAL RESOURCES. *Would the project:*		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a.	Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	✖	☐
b.	Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	☐	✖	☐	☐
c.	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	✖	☐	☐

Discussion

a. The following discussion is based on a Updated Cultural Resources Assessment (Updated Cultural Report) prepared for the proposed project by Ric Windmiller, Consulting Archaeologist, and Dana Supernowicz, Architectural Historian in April of 2020.[8] Windmiller Consulting, Inc. conducted a site survey as part of a previous 2004 study and revisited the site on April 16, 2020. In 2004, Windmiller identified the Elissondo Ranch Complex, the western half of which was located on the Bridle Gate property and the eastern half of which was located on the SR 4 Bypass Authority property. The Bridle Gate portion of the complex included three structures: a large barn, small barn and chicken coop, and a house trailer. Windmiller also identified a private bridge over Sand Creek, which consisted of an old railroad flatcar and abutments. It should be noted that the structures identified in the Updated Cultural Report have since been removed and do not currently exist on the project site.

The Updated Cultural Report included an assessment of the identified resources to determine the resources were eligible for listing the California Register of Historic Resources (CRHR). The Updated Cultural Report concluded that the Elissondo Ranch Complex and old railroad flatcar and abutments are not associated with an important person or persons and do not yield any information important to history. Thus, the Elissondo Ranch Complex and old railroad flatcar and abutments were determined not to be eligible for listing as historical resources in the CRHR.

Based on the above, the proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5, and a ***less-than-significant*** impact would occur.

b,c. As part of the Updated Cultural Report, a records search of the California Historic Resources Information System (CHRIS) was performed by the Northwest Information Center (NWIC) for cultural resource site records and survey reports within the proposed project area. The CHRIS search concluded that the project site does not contain any recorded archaeological resources, historic buildings or structures included in any lists of historic resources, nor does the project site contain Native American resources. In addition, a records search by the Native American Heritage Commission (NAHC) of the Sacred Lands File resulted in negative findings of cultural resources on the project site.

However, considering that unknown archaeological resources, including human remains, and/or historic resources have the potential to exist on-site, ground-disturbing activity

[8] Windmiller Consulting, Inc. *Bridle Gate Updated Cultural Resources Assessment, Brentwood, Contra Costa County*. April 2020.

related to project construction could encounter such resources. Therefore, the proposed project could cause a substantial adverse change in the significance of a historic or archaeological resource pursuant to CEQA Guidelines Section 15064.5 and/or disturb human remains, including those interred outside of dedicated cemeteries during construction. Thus, impacts could be considered ***potentially significant***.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

V-1. *Prior to grading permit issuance, the developer shall submit plans to the Community Development Department for review and approval which indicate (via notation on the improvement plans) that a qualified archaeologist shall conduct a Cultural Resources Worker Environmental Awareness Program (WEAP) training for all personnel involved in ground-disturbing, site preparation construction activities on the project site prior to construction and ground-disturbing activities. The training shall include basic information about the types of artifacts that might be encountered during construction activities, and procedures to follow in the event of a discovery. The training shall be provided for any additional personnel added to the project even after the initiation of construction and ground disturbing activities.*

V-2. *Prior to grading permit issuance, the developer shall submit plans to the Community Development Department for review and approval which indicate (via notation on the improvement plans) that if historic and/or cultural resources are encountered during site grading or other site work, all such work shall be halted immediately within 100 feet and the contractor shall immediately notify the Community Development Department of the discovery. In such case, a qualified archaeological monitor shall be retained by the developer, at its own expense, and shall evaluate any potentially important discovery. Significance determinations shall be measured in terms of criteria for inclusion on the California Register of Historical Resources (Title 14 CCR, §4852[a]), and the definition of tribal cultural resources set forth in Public Resources Code Section 21074. The archaeologist shall be required to submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Comments on the report shall be submitted by the Native American tribes within 30 days of receipt of the report. Further grading or site work within the area of discovery shall not be allowed until the preceding work has occurred.*

V-3. *Prior to grading permit issuance, the developer shall submit plans to the Community Development Department for review and approval which indicate (via notation on the improvement plans) that if human remains, or remains that are potentially human, are found during construction, a professional archeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance. The archaeologist shall notify the Contra Costa County Coroner (per §7050.5 of the State Health and Safety Code). The provisions of §7050.5 of the California Health and Safety Code, §5097.98 of the California Public Resources Code, and Assembly Bill 2641 will be implemented. If the Coroner determines the*

remains are Native American and not the result of a crime scene, then the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the project (§5097.98 of the Public Resources Code). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the project contractor does not agree with the recommendations of the MLD, the NAHC can mediate (§5097.94 of the Public Resources Code). If an agreement is not reached, the qualified archaeologist or MLD must rebury the remains where they will not be further disturbed (§5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center, using an open space or conservation zoning designation or easement, or recording a reinternment document with the county in which the property is located (AB 2641). Work cannot resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

VI. ENERGY. *Would the project:*		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a.	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	✖	☐	☐	☐
b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	✖	☐	☐	☐

Discussion

a,b. The main forms of available energy supply are electricity, natural gas, and oil. Energy would be used to construct the proposed project, and once constructed, energy would be used for the lifetime of the proposed project.

Construction of the proposed project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the sites where energy supply cannot be met via a hookup to the existing electricity grid.

Following implementation of the proposed project, PG&E would provide electricity to the project site. Energy use associated with operation of the proposed project would be typical of residential uses, requiring electricity for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC), electronic equipment, machinery, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, could involve the use of electric or gas-powered equipment. In addition to on-site energy use, the proposed project would result in transportation energy use associated with resident vehicle trips generated by the proposed project.

Due to the proposed project's anticipated use of energy during construction and operations, the proposed project has the potential to result in a significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation, as well as conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Thus, a ***potentially significant*** impact could occur.

Further analysis of the above potential impact will be discussed in the Air Quality, Greenhouse Gas Emissions, and Energy chapter of the Bridle Gate Project REIR.

VII. GEOLOGY AND SOILS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	✖	☐	☐
ii. Strong seismic ground shaking?	☐	✖	☐	☐
iii. Seismic-related ground failure, including liquefaction?	☐	✖	☐	☐
iv. Landslides?	☐	✖	☐	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	✖	☐	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	✖	☐	☐
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	✖	☐	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	✖
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	✖	☐	☐

Discussion

The following discussions are based on a Geotechnical Exploration prepared for the proposed project by ENGEO Incorporated (see Appendix A)[9] and relevant General Plan policies. Although the document was prepared in 1999, the geological conditions identified therein are not anticipated to have changed. Thus, the conclusions presented in the 1999 Geotechnical Exploration remain valid.

ai-ii. According to the General Plan EIR, the project site is not within an Alquist-Priolo Special Studies Zone; however, the EIR indicates that the Brentwood area is located in a seismically active zone. Five active faults are located within an approximate 50-mile radius of the project site. The nearest active faults are the Greenville and Concord faults, located approximately nine miles southwest and 13 miles west, respectively. However, known active or potentially active faults do not exist on the project site. In addition, the project site is not located within a State-designated Alquist-Priolo Fault Zone.[10] Thus, the potential for fault rupture risk at the project site is relatively low.

An earthquake of moderate to high magnitude generated by the above faults could cause considerable ground shaking at the project site. However, the proposed project would be subject to all applicable regulations within the California Building Standards Code (CBSC)

[9] ENGEO Incorporated. *Geotechnical Exploration, Ellisondo Parcel, Brentwood, California.* September 15, 1999.
[10] California Geologic Survey. *Seismic Hazard Zone Report for the Brentwood 7.5-Minute Quadrangle, Contra Costa County, California.* 2018.

and Chapter 15.04 (Building Code) of the City's Municipal Code, which provides standards to protect property and public safety by regulating the design and construction of foundations, building frames, and other building elements. However, a ***potentially significant*** impact could occur related to exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, or landslides if the aforementioned regulations are not implemented.

Mitigation Measure(s)

Implementation of the following mitigation measure would ensure the above impact is reduced to a *less-than-significant* level.

VII-1. *All project buildings shall be designed in conformance with the current edition of the California Building Standards Code (CBSC).*

VII-2. *Prior to grading permit issuance, the applicant shall submit a final geotechnical evaluation of the project site that analyzes soil stability including soil expansion, and the potential for lateral spreading, subsidence, liquefaction or collapse. The report shall identify any on site soil and seismic hazards and provide design recommendations for onsite soil and seismic conditions. The geotechnical evaluation shall be reviewed and approved by the City Engineer, Chief Building Official, and a qualified Geotechnical Engineer to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the project design in order to adhere to all geotechnical requirements contained in the California Building Code.*

VII-3. *All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the City Engineer, Chief Building Official, and a qualified Geotechnical Engineer prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the project design in order to adhere to all geotechnical requirements contained in the California Building Code.*

aiii-aiv,
c. Risks associated with liquefaction, landslides, lateral spreading, and subsidence are discussed in detail below.

Liquefaction

Liquefaction is a phenomenon in which saturated, cohesionless soils are subject to a temporary total loss of shear strength due to pore pressure build-up associated with seismic events. The Geotechnical Exploration prepared for the proposed project concluded that on-site soils consisted primarily of natural alluvial deposits and shallow deposits of residual soil over bedrock. Based on the material types and densities of granular materials encountered on-site and lack of groundwater, the risk of liquefaction at the project site was determined to be low.[11]

[11] ENGEO Incorporated. *Geotechnical Exploration, Ellisondo Parcel, Brentwood, California* [pg. 16]. September 15, 1999.

Landslides

Seismically-induced landslides are triggered by earthquake ground shaking. The risk of this hazard is greatest in the late winter when groundwater levels are highest and hillside colluvium is saturated. The risk of landslides is present at the project site due to varying degrees depending on the slope conditions and time of year. According to the Geotechnical Exploration, portions of the project site where residential development is proposed contain considerable slopes. As such, development on the project site could be subject to landslide risks. However, according to the Geotechnical Exploration prepared for the project site, the hazard of seismically-induced landsliding to the proposed structures could be adequately mitigated by properly engineered stabilization of hillslopes and/or creation of sufficient buffers between hillslope areas and development areas. It should be noted that the proposed project would include grading of the hills within the southern portion of the project site to accommodate the proposed residential subdivision, which would reduce the elevation of the higher portions of the project site. The proposed grading would help to reduce the likelihood of future landslide occurrence.

Lateral Spreading

Lateral spreading is a phenomenon in which a soil mass moves towards a free face, such as an excavation or road cut, or down a gentle slope. Per the Geotechnical Evaluation, lateral spreading is not likely to pose a risk to the proposed project due to the low liquefaction potential.

Subsidence/Settlement

According to the project Geotechnical Exploration, areas of artificial fill, extending up to five feet in thickness, are present around the previous oil and gas well sites located on the project site. Other areas of deep fill are anticipated in the lower lying areas of the project site. Such artificial fill is considered highly susceptible to excessive total and differential-settlement, or subsidence, in the absence of remediation. To reduce potential total and differential settlements, the Geotechnical Exploration recommended that the uncontrolled existing fills be completely over excavated and removed. The actual extent of the fill would need to be determined during grading and would require removal and replacement with properly-engineered fill.

Conclusion

Based on the above, the proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving liquefaction or landslides. In addition, the project would not be subject to risks associated with lateral spreading. However, in the absence of proper mitigation to remediate artificial fill materials located on the project site, such fill materials could potentially result in on- or off-site subsidence or collapse. Furthermore, in the absence of proper mitigation to ensure the recommendations in the Geotechnical Exploration Report are properly incorporated into project design, the proposed project could result in adverse impacts. Thus, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would ensure the above impact is reduced to a *less-than-significant* level.

VII-4. *During construction, the project contractor shall completely remove and recompact any existing non-engineered fill on-site under the supervision of*

a registered geotechnical engineer, according to the recommendations presented in the Geotechnical Exploration Report and to the satisfaction of City. A written summary of the operations shall be submitted to the City Engineer.

VII-5. *All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the City Engineer, Chief Building Official, and a qualified Geotechnical Engineer, or through the state approval process for the school, prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the project design. In addition, prior to issuance of a building permit for any lot, the applicant shall submit to the City a letter from a qualified Geotechnical Engineer and Civil Engineer stating that the lot has been constructed in conformance with the approved Grading Plan and recommendations in the Geotechnical Report. The Geotechnical Exploration Report provides feasible measures including, but not limited to: demolition and stripping design grades be cleaned to a firm undisturbed soil surface; specification of backfill materials and procedure; slope gradient guidelines; creek bank and bed protection proper foundation design; reinforced structural mat foundations; and post-tensioned slabs.*

b. Issues related to erosion and degradation of water quality during construction are discussed in Section X, Hydrology and Water Quality, of this IS, under question 'a'. As noted therein, a Storm Water Pollution Prevention Plan (SWPPP) for the site would be required. A SWPPP describes best management practices (BMPs) to control or minimize pollutants from entering stormwater and addresses both grading/erosion impacts and non-point source pollution impacts of the development project, including post-construction impacts. The City of Brentwood requires all development projects to use BMPs to treat runoff. However, if BMPs are not implemented to treat runoff, a ***potentially significant*** impact would occur.

VII-6. *Prior to grading permit issuance, the applicant shall submit a final grading plan to the City Engineer for review and approval. If the grading plan differs significantly from the proposed grading illustrated on the approved project plans, plans that are consistent with the new revised grading plan shall be provided for review and approval by the City Engineer.*

VII-7. *Any applicant for a grading permit shall submit an erosion control plan to the City Engineer for review and approval. The plan shall identify protective measures to be taken during construction, supplemental measures to be taken during the rainy season, the sequenced timing of grading and construction, and subsequent revegetation and landscaping work to ensure water quality in creeks and tributaries in the General Plan Area is not degraded from its present level. All protective measures shall be shown on the grading plans and specify the entity responsible for completing and/or monitoring the measure and include the circumstances and/or timing for implementation.*

VII-8. *Grading, soil disturbance, or compaction shall not occur during periods of rain or on ground that contains freestanding water. Soil that has been soaked and wetted by rain or any other cause shall not be compacted until*

completely drained and until the moisture content is within the limit approved by a Soils Engineer. Approval by a Soils Engineer shall be obtained prior to the continuance of grading operations. Confirmation of this approval shall be provided to the City Engineer prior to commencement of grading.

d. Expansive soils shrink/swell when subjected to moisture fluctuations, which can cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Building damage due to volume changes associated with expansive soils can be reduced by performing proper moisture conditioning and compaction of fill materials within selected ranges to reduce their swell potential, and using structurally reinforced "rigid" mats or post-tensioned mats designed to resist the deflections associated with soil expansion. Per the Geotechnical Exploration, a high shrink-swell potential exists in the soils underlying the site. The clayey soil and clayey bedrock materials within the subject area display moderate to high potential for shrink-swell behavior, according to Plasticity Indices. Compliance with CBSC standards would reduce potential impacts related to expansive soil. Nonetheless, the proposed project could be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code, and a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would ensure the above potential impact is reduced to a *less-than-significant* level.

VII-9. Implement Mitigation Measure VII-5.

e. The proposed project would connect to extended or existing sewer infrastructure, and, thus, would not require the use of septic systems. Therefore, ***no impact*** would occur related to having soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

f. The City's General Plan indicates that known paleontological resources do not exist within the City planning area. However, development allowed under the General Plan could result in the discovery and disturbance of previously unknown or undiscovered paleontological resources. Geologic formations, including the Upper Cretaceous marine sedimentary rocks and various Quaternary subunits, that have a moderate to high potential for paleontological resources, are present throughout many areas of the city. The City's General Plan EIR concluded that with implementation of Action COS 6e, which requires all new development projects to comply with procedures upon discovery of unique paleontological resources, impacts related to disturbance of paleontological resources would be less than significant.

As noted in the City's General Plan EIR, the majority of the City is underlain by Quaternary Marine/Alluvium, which contains mostly nonmarine unconsolidated alluvium, lake, playa, and terrace deposits. Such soil types are not considered unique geologic features and are common within the geographic area of the city. Furthermore, the City's General Plan does not note the existence of any unique geologic features within the city. Consequently, implementation of the proposed project would not be anticipated to have the potential to result in direct or indirect destruction of unique geologic features.

Although the proposed project would not have the potential to result in the destruction of unique geologic features, previously unknown paleontological resources could exist within the project site. Thus, ground-disturbing activity, such as grading, trenching, or excavating associated with implementation of the proposed project, could have the potential to disturb or destroy such resources. Therefore, the proposed project could result in the direct or indirect destruction of a unique paleontological resource, and a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

VII-10. *Should construction or grading activities result in the discovery of unique paleontological resources, all work within 100 feet of the discovery shall cease. The Community Development Department shall be notified, and the resources shall be examined by a qualified archaeologist, paleontologist, or historian, at the developer's expense, for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist, paleontologist, or historian shall submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Work may only resume in the area of discovery when the preceding work has occurred. The language of this mitigation shall be included via notation on the project improvement plans.*

VIII. GREENHOUSE GAS EMISSIONS. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	✖	☐	☐	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	✖	☐	☐	☐

a,b. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to the proposed development would be primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. Because construction and operation of the proposed project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, impacts related to GHG emissions and global climate change could be cumulatively considerable and considered ***potentially significant***.

Further analysis of the above impact will be included in the Air Quality, Greenhouse Gas Emissions, and Energy chapter of the Bridle Gate Project REIR.

IX. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	✖	☐	☐	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	✖	☐	☐	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	✖	☐	☐	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	✖	☐	☐	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	✖	☐	☐	☐
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	✖	☐	☐	☐
g. Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires?	✖	☐	☐	☐

Discussion

a-g. The proposed project would include the development of 286 single-family residences, as well as associated improvements within the project site, including parks, stormwater detention and treatment areas, utility connections, and construction of an internal roadway network. As such, development of the proposed project could result in impacts related to hazards and hazardous materials such that the project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment; emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment; or, for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area; or impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and/or expose people or structures, either directly or indirectly, to the risk of loss, injury, or death involving wildland fires. Therefore, a ***potentially significant*** impact could occur.

Further analysis of the above potential impact will be included in the Hazards and Hazardous Materials chapter of the Bridle Gate Project REIR.

X. HYDROLOGY AND WATER QUALITY. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	✖	☐	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	✖	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	☐	✖	☐	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	✖	☐	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	✖	☐	☐
iv. Impede or redirect flood flows?	☐	☐	✖	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	✖	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	✖	☐

Discussion

a. During the early stages of construction activities, topsoil would be exposed due to grading and excavation of the site. After grading and prior to overlaying the ground surface with impervious surfaces and structures, the potential exists for wind and water erosion to discharge sediment and/or urban pollutants into stormwater runoff, which could adversely affect water quality.

The State Water Resources Control Board (SWRCB) regulates stormwater discharges associated with construction activities where clearing, grading, or excavation results in a land disturbance of one or more acres. Given that the proposed project would disturb more than one acre of land, the proposed construction activities would be subject to applicable SWRCB regulations. Performance Standard NDCC-13 of the City's National Pollutant Discharge Elimination System (NPDES) permit requires applicants to show proof of coverage under the State's General Construction Permit prior to receipt of any construction permits. The State's General Construction Permit requires a SWPPP to be prepared for the site. A SWPPP describes BMPs to control or minimize pollutants from entering stormwater and must address both grading/erosion impacts and non-point source pollution impacts of the development project, including post-construction impacts. The City of Brentwood requires all qualifying development projects to use BMPs to treat runoff.

Following completion of project buildout, the portions of the site planned for development would be largely covered with impervious surfaces and topsoil would no longer be

exposed. As such, the potential for impacts to water quality would be reduced. In addition, as discussed in further detail below, the proposed project would include two bio-retention basins located in the northwestern portion of the site, southeast of the proposed six-acre park (Parcel B), and along the southeast boundary of the site (Parcel E), respectively. The bio-retention basins have been designed for treatment and hydromodification sufficient to handle stormwater from all on-site impervious areas prior to discharge to the City's stormwater drainage system.

Based on the above, the proposed project could violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality without the preparation of a SWPPP and implementation of BMPs, and a ***potentially significant*** impact would occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

X-1. *Prior to issuance of grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP). The Developer shall file the Notice of Intent (NOI) and associated fee to the SWRCB. The SWPPP shall serve as the framework for identification, assignment, and implementation of BMPs. The contractor shall implement BMPs to reduce pollutants in stormwater discharges consistent with the requirements established in 15.52.60(F): Erosion and Sediment Control of the City's Municipal Code. The SWPPP shall be submitted to the City Engineer for review and approval and shall remain on the project site during all phases of construction. Following implementation of the SWPPP, the contractor shall subsequently demonstrate the SWPPP's effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable.*

X-2. *Prior to the completion of construction, the applicant shall prepare and submit, for the City's review, an acceptable Stormwater Control Operation and Maintenance Plan. In addition, prior to the sale, transfer, or permanent occupancy of the site, the applicant shall be responsible for paying for the long-term maintenance of treatment facilities, and executing a Stormwater Management Facilities Operation and Maintenance Agreement and Right of Entry in the form provided by the City of Brentwood. The applicant shall accept the responsibility for maintenance of stormwater management facilities until such responsibility is transferred to another entity.*

The applicant shall submit, with the application of building permits, a draft Stormwater Facilities and Maintenance Plan, including detailed maintenance requirements and a maintenance schedule for the review and approval by the City Engineer. Typical routine maintenance consists of the following:

- *Limit the use of fertilizers and/or pesticides. Mosquito larvicides shall be applied only when absolutely necessary.*

- *Replace and amend plants and soils as necessary to insure the planters are effective and attractive. Plants must remain healthy and trimmed if overgrown. Soils must be maintained to efficiently filter the storm water.*
- *Visually inspect for ponding water to ensure that filtration is occurring.*
- *After all major storm events, remove bubble-up risers for obstructions and remove if necessary.*
- *Continue general landscape maintenance, including pruning and cleanup throughout the year.*
- *Irrigate throughout the dry season. Irrigation shall be provided with sufficient quantity and frequency to allow plants to thrive.*
- *Excavate, clean and or replace filter media (sand, gravel, topsoil) to insure adequate infiltration rate (annually or as needed).*

X-3. *Design of on-site drainage facilities shall meet with the approval of both the City Engineer and the Contra Costa County Flood Control and Water Conservation District prior to the issuance of grading permits.*

X-4. *Contra Costa County Flood Control and Water Conservation District drainage fees for the Drainage Area shall be paid prior to issuance of grading permits to the satisfaction of the City Engineer.*

X-5. *The Applicant/Developer shall ensure that the project site shall drain into a street, public drain, or approved private drain, in such a manner that un-drained depressions shall not occur. Satisfaction of this measure shall be subject to the approval of the City Engineer.*

X-6. *The construction plans shall indicate roof drains emptying into a pipe leading to the project bioswale areas for the review and approval of the City Engineer prior to the issuance of building permits.*

X-7. *The improvement plans shall indicate concentrated drainage flows not crossing sidewalks or driveways for the review and approval of the City Engineer prior to the issuance of grading permits.*

b,e. Water supplies for the project site are supplied by the City of Brentwood. According to the City's 2020 Urban Water Management Plan (UWMP), the City's current water supply consists of both surface water from the Delta and groundwater which is pumped from the East Contra Costa (ECC) Subbasin underlying the City through nine wells within the service area, five of which are active.[12] While the proposed project would create new impervious surfaces within the site, the ECC Subbasin has a total surface area of approximately 168 square miles; therefore, the groundwater basin within which the project site is located would be recharged from many sources over a large area. Except for seasonal variations resulting from recharge and pumping, the General Plan EIR anticipates the City will pump a relatively stable amount of groundwater through the year 2045. Therefore, any new impervious surfaces associated with the project would not interfere substantially with groundwater recharge within the ECC Subbasin.

[12] City of Brentwood. *2020 Urban Water Management Plan*. June 2021, revised December 2021.

Given that the proposed project is consistent with the site's current land use designation, residential development of the project site has been anticipated by the City. As such, the project would not result in increased use of groundwater supplies beyond what has been anticipated by the City and accounted for in the UWMP. Additionally, the proposed project would be subject to the specific regulations on water use imposed by the UWMP.

Therefore, the proposed project would result in a ***less-than-significant*** impact with respect to substantially decreasing groundwater supplies or interfering substantially with groundwater recharge such that the project would impede sustainable groundwater management of the basin. In addition, the project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

ci-iii. All municipalities within Contra Costa County (and the County itself) are required to develop surface water control standards for new development projects as part of the renewal of the Countywide NPDES permit. Known as the "C.3 Standards," new development and redevelopment projects that create or replace 10,000 or more sf of impervious surface area must contain and treat stormwater runoff from the site. The proposed project is a C.3 regulated project and is required to include appropriate site design measures, source controls, and hydraulically-sized stormwater treatment measures.

The Preliminary Stormwater Control Plan (PSCP) prepared for the proposed project by Balance Hydrologics, Inc. (see Appendix B)[13] divided the portion of the project site proposed for development into two drainage management areas (DMAs) labeled as DMA W and DMA E (see Figure 9). Generally, DMA W consists of the western portion of the project site, and DMA E consists of the eastern portion of the site. Under existing conditions, DMA W drains into Sand Creek, while DMA E drains into San Jose Avenue on the southeastern corner of the property. Similar to pre-project conditions, following project development, DMA W would drain to a detention basin and bioretention basin and then to the existing outfall in Sand Creek. DMA E would drain to a detention basin and bioretention basin that would connect to the existing storm drain line at San Jose Avenue.

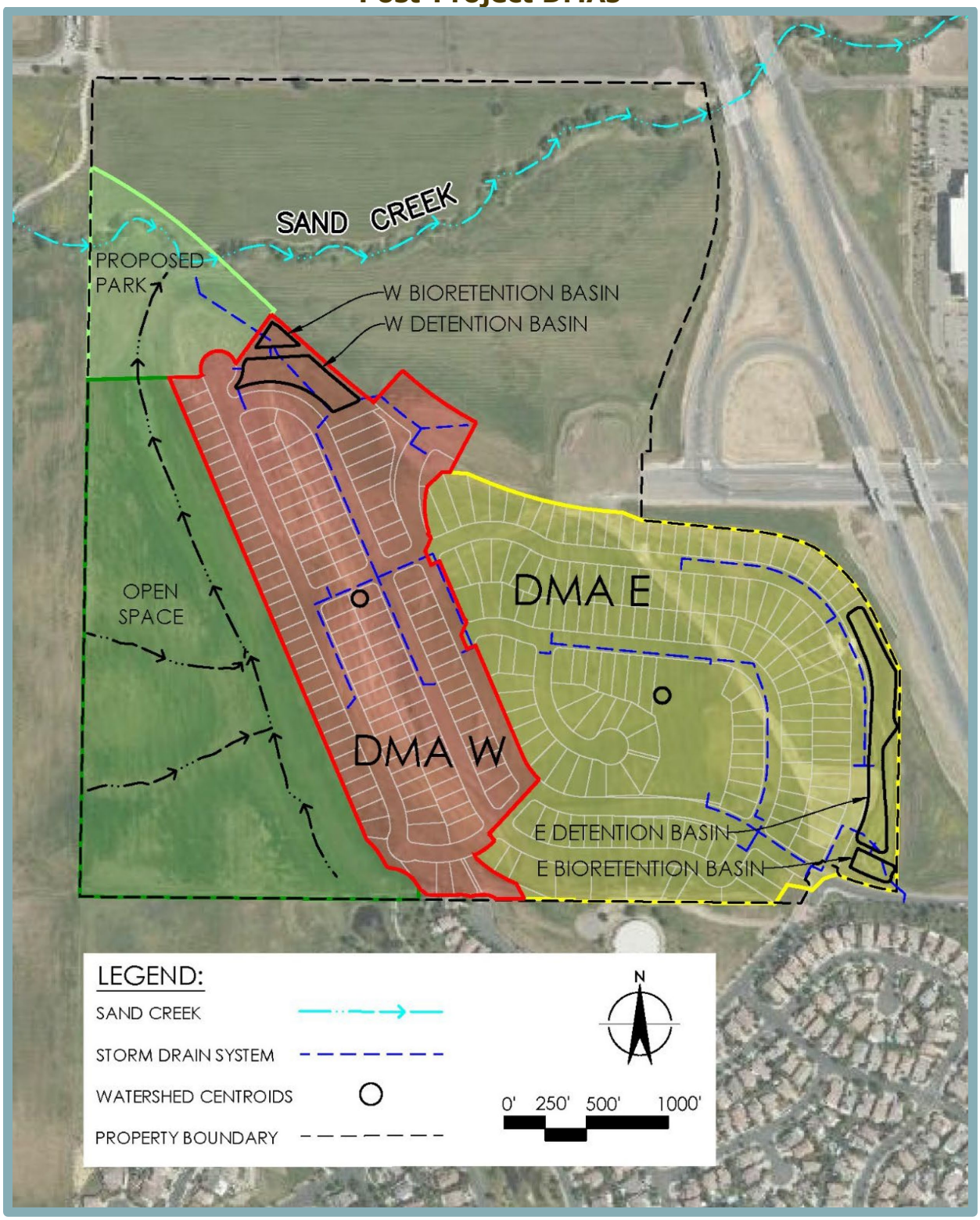
Both bioretention basins have been designed to exceed the minimum volume requirements, as calculated by the Integrated Management Practice (IMP) sizing calculator. Therefore, runoff from somewhat more intense storms will also be treated and hydro-modified. After infiltration into the basins, the treated storm water enters the storm drainage system. All storm drain outfalls into Sand Creek will be required to be sized and constructed to accommodate the full development potential of the entire upstream watershed.

Conclusion

A PSCP has been prepared for the proposed project, demonstrating how the project will comply with C.3 standards and adequately treat and detain stormwater runoff. In addition, a long-term maintenance plan is needed to ensure that all proposed stormwater treatment and control BMPs function properly.

[13] Balance Hydrologics, Inc. *Preliminary Stormwater Control Plan for the Bridle Gate Project, City of Brentwood*. February 18, 2022.

Figure 9
Post-Project DMAs



Should the proposed water quality treatment and control facilities not be maintained properly, a ***potentially significant*** impact could occur with respect to creating or contributing runoff water which would exceed the capacity of existing or planned stormwater drainage systems or providing substantial additional sources of polluted runoff.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

X-8. *Prior to the completion of construction activities, the applicant shall prepare and submit, for the City's review, an acceptable Stormwater Control Operation and Maintenance Plan. In addition, prior to the sale, transfer, or permanent occupancy of the site the applicant shall be responsible for paying for the long-term maintenance of treatment facilities, and executing a Stormwater Management Facilities Operation and Maintenance Agreement and Right of Entry in the form provided by the City of Brentwood. The applicant shall accept the responsibility for maintenance of stormwater management facilities until such responsibility is transferred to another entity.*

The applicant shall submit, with the application of building permits, a draft Stormwater Facilities and Maintenance Plan, including detailed maintenance requirements and a maintenance schedule for the review and approval by the City Engineer. Typical routine maintenance consists of the following:

- *Limit the use of fertilizers and/or pesticides. Mosquito larvicides shall be applied only when absolutely necessary.*
- *Replace and amend plants and soils as necessary to ensure the planters are effective and attractive. Plants must remain healthy and trimmed if overgrown. Soils must be maintained to efficiently filter the storm water.*
- *Visually inspect for ponding water to ensure that filtration is occurring.*
- *After all major storm events remove trash, inspect drain pipes and bubble-up risers for obstructions and remove if necessary.*
- *Continue general landscape maintenance, including pruning and cleanup throughout the year.*
- *Irrigate throughout the dry season. Irrigation shall be provided with sufficient quantity and frequency to allow plants to thrive.*
- *Excavate, clean and/or replace filter media (sand, gravel, topsoil) to ensure adequate infiltration rate (annually or as needed).*

X-9. *Contra Costa County Flood Control & Water Conservation District drainage fees for the Drainage Areas shall be paid by the applicant prior to issuance of building permits.*

civ. According to the June 16, 2009 Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), Panel IDs 06013C0353F and 06013C0335F, the 100-year flood plain limits (Zones AE and A) extend out from the defined channel of Sand Creek,

which traverses the northern portion of the project site in an east-west manner. In addition, the 100-year flood plain extends southerly, just outside the far western edge of the project site. The proposed project would not include development within the 100-year flood zone. As such, the proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows. Therefore, a ***less-than-significant*** impact would occur related to such.

d. Tsunamis are defined as sea waves created by undersea fault movement. A tsunami poses little danger away from shorelines; however, when it reaches the shoreline, a high swell of water breaks and washes inland with great force. Waves may reach 50 feet in height on unprotected coasts. Historic records of the Bay Area used by one study indicate that nineteen tsunamis were recorded in San Francisco Bay during the period of 1868-1968. Maximum wave height recorded at the Golden Gate tide gauge (where wave heights peak) was 7.4 feet. The available data indicate a standard decrease of original wave height from the Golden Gate to about half original wave height on the shoreline near Richmond, and to nil at the head of the Carquinez Strait. As Brentwood is several miles inland from the Carquinez Strait, the project site is not exposed to flooding risks from tsunamis and adverse impacts would not result.

A seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir, whose destructive capacity is not as great as that of tsunamis. Seiches are known to have occurred during earthquakes, but none have been recorded in the Bay Area. In addition, the project is not located near a closed body of water. Therefore, the proposed project is not anticipated to be impacted by seiches in the future.

Mudflows typically occur in mountainous or hilly terrain. Given the existing and proposed topography, the project site can be characterized as hilly terrain. A Geotechnical Exploration was prepared for the project site by ENGEO Incorporated, which provides recommendations for the design and construction of the project. Mitigation measure VI-1 of this IS requires that all grading and foundation plans be reviewed and approved by the City Engineer and Chief Building Official prior to grading and building permit issuance to ensure that all geotechnical recommendations specified in the geotechnical evaluation report are properly incorporated and utilized in design. Implementation of the geotechnical recommendations would ensure that potential impacts resulting from mudslides would be reduced to a less-than-significant level.

Overall, with implementation of the mitigation measures set forth within this IS, impacts would be ***less than significant***.

XI. LAND USE AND PLANNING. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	✖	☐
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	✖	☐

Discussion

a. A project risks dividing an established community if the project would introduce infrastructure or alter land use so as to change the land use conditions in the surrounding community, or isolate an existing land use. Existing land uses in the project vicinity include a single-family residential development (Brentwood Hills) to the south and commercial uses to the east across SR 4. The proposed project would be consistent with the type and intensity of existing residential uses to the south. As such, the proposed project would not physically divide an established community and a ***less-than-significant*** impact would occur.

b. The project site is currently designated RC, R-LD, P-OS, and P per the City's General Plan and is zoned PD-36. Land designated for PD-36 uses are intended for concentrations of a variety of mixed uses to serve specific areas of the City. In addition, with the implementation of required mitigation measures, the proposed project would not conflict with City policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect, including, but not limited to, the City's noise standards, applicable SWRCB regulations related to stormwater, and East Contra Costa County (ECCC) Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) standards.

The project's consistency with assorted General Plan goals and policies is illustrated below:

Table 1
General Plan Consistency Table

General Plan Goals and Policies	Project Consistency
Policy LU 1-4: Require new development to occur in a logical and orderly manner, focusing growth on infill locations and areas designated for urbanization on the Land Use Map (Figure LU-1), and be subject to the ability to provide urban services, including paying for any needed extension of services.	The project proposes to locate in an area designated for urbanization in the Land Use Map of the General Plan. As discussed in the Utilities & Service Systems chapter of this IS, the project site would be served by applicable urban services with incorporation of design features, payment of required development impact fees, and mitigation measures.
Policy LU 1-5: Encourage new development to be contiguous to existing development, whenever possible.	The project would be located directly north of the existing Brentwood Hills residential subdivision and immediately south of the PA-1 Specific Plan planning area.
Policy LU 1-8: Maintain and/or establish buffers and appropriate open space areas between Brentwood and the neighboring cities of Antioch and Oakley.	The project proposes to include two parks totaling 9.39 acres, well as 25 acres of open space, some located on the site's western boundary, thereby offering an open space

	buffer between the City of Antioch, which adjoins the site's western property line, and the City of Brentwood.
Policy LU 6-1: Create residential areas in Brentwood that include innovative designs which are linked with bikeways and pedestrian trails, commercial and employment centers, and transit stops.	An internal circulation system would be provided throughout the proposed single-family residential subdivision. Each internal roadway would be designed to meet current City standards and would include sidewalks on both sides. Pedestrian access would be provided in the form of sidewalks and trails throughout the proposed development, in conformance with City standards.

Based on the above, the project would not cause a significant environmental impact due to conflicts with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, a ***less-than-significant*** impact would occur.

XII. MINERAL RESOURCES. *Would the project:*		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	✖	☐
b.	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	✖	☐

Discussion

a,b. The City's General Plan EIR identifies coal, oil and gas, and sand as the significant mineral resources within the area. According to the Phase I Environmental Site Assessment prepared for the proposed project, the project site contains up to seven crude oil or natural gas production wells that have been decommissioned and abandoned in accordance with the Department of Oil, Gas, and Geothermal Resources State regulations (see Appendix C).[14] The project site has not been used for such purposes since approximately 1996. Per Section 17.680.021 of the City's Municipal Code, the proposed project is required to include adequate development setbacks from abandoned wells. The setbacks would ensure that the proposed project would not preclude future access of the wells, if necessary. Nonetheless, because the wells have been decommissioned and abandoned, the proposed project would not result in the loss of availability of such resources. Thus, a ***less-than-significant*** impact would occur.

[14] ENGEO Incorporated. *Subject: Bridle Gate, Sand Creek Road and San Jose Avenue, Brentwood, California, Phase I Environmental Site Assessment.* May 6, 2020.

XIII. NOISE. *Would the project result in:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	✖	☐	☐	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	✖	☐	☐	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	✖	☐	☐	☐

Discussion

a-c. The proposed project would include the development of 286 single-family residences, as well as associated improvements within the project site, including parks, stormwater detention and treatment areas, utility connections, and construction of an internal roadway network. As such, development of the proposed project could cause impacts related to noise such that the project could result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; the generation of excessive groundborne vibration or groundborne noise levels; and/or, for a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels. Therefore, a ***potentially significant*** impact could occur.

Further analysis of the above potential impact will be included in the Noise chapter of the Bridle Gate Project REIR.

XIV. POPULATION AND HOUSING. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	☐	☐	✖	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	✖

Discussion

a. Because the portion of the site proposed for residential development has the General Plan land use designation of R-LD, the development of residential uses on the project site has been anticipated by the City. The City's General Plan assumes 3.22 persons per household in new, detached single-family residential units.[15] Therefore, the proposed project could be expected to house approximately 921 residents (286 units x 3.22 persons per household = 920.9).

Population growth itself does not constitute an environmental impact; rather, increased demands on the physical environment resulting from increases in population are considered environmental impacts. For example, increased demands on City services could require system upgrades, the construction of which could have environmental impacts. Physical environmental effects associated with development of the proposed project are evaluated throughout this IS and are further addressed in the REIR. As discussed in Section XV, Public Services, of this IS, the project site is located in an urban area and is located within the vicinity of existing development. Therefore, construction of new or expanded public services facilities would not be necessary to serve the proposed project.

While the proposed project would result in population growth, such growth could be accommodated by existing public services and infrastructure and would not result in significant adverse environmental effects. In addition, given that the proposed project is consistent with the site's current General Plan land use designation, population growth associated with the proposed project would not be unplanned. Thus, a ***less-than-significant*** impact would occur related to inducing substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure).

b. The project site is currently vacant and devoid of any habitable structures. As such, the proposed project would not displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere. Therefore, ***no impact*** would occur.

[15] City of Brentwood. *2014 Brentwood General Plan Draft Environmental Impact Report* [pg. 3.10-32]. April 2014.

XV. PUBLIC SERVICES. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Fire protection?	☐	✖	☐	☐
b. Police protection?	☐	✖	☐	☐
c. Schools?	☐	✖	☐	☐
d. Parks?	☐	☐	✖	☐
e. Other Public Facilities?	☐	☐	✖	☐

Discussion

a. Fire protection services are currently provided to the site by the Contra Costa County Fire Protection District (Con Fire). Con Fire protects approximately 553 square miles and nearly one million residents, across 35 fire stations. The City of Brentwood is served primarily by Station 92, which is the nearest station to the project site and is located approximately two miles south of the site at 201 John Muir Parkway.

The General Plan includes nine policies and four actions (Policies CSF 1-1 through 1-3, and 4-1 through 4-6, and Actions CSF 1a, and 4a-c) to provide that fire protection services are provided in a timely fashion, are adequately funded, are coordinated between the City and appropriate service agency, and that new development pays their fair share of services. Among the action items included in the General Plan that are applicable to the project are the following:

- Action CSF 1a: Requiring new development to pay their fair share fees of the cost of on and off-site community services and facilities;
- Action CSF 4a: Continue to enforce the CBC and the California Fire Code to ensure that all construction implements fire-safe techniques, including fire resistant materials, where required; and
- Action CSF 4b: As part of the City's existing development review process for new projects, the City would continue to refer applications to the CCCFPD [currently Con Fire] for determination of the project's potential impacts on fire protection services. Requirements would be added as conditions of project approval, if appropriate.

The project would comply with the General Plan actions listed above. For example, the City of Brentwood collects one-time development impact fees that support the construction of new fire facilities.[16]

The City collects a fire facility impact fee, but not a service fee. The District has identified insufficient funding to increase service availability. This shortfall has resulted in staffing deficiencies that do not allow the District to meet current service level response time

[16] City of Brentwood. *City of Brentwood Development Fee Program, 2022 Update.* Available at: https://www.brentwoodca.gov/home/showpublisheddocument/4664/637921133863100000. Accessed May 4, 2023.

standards. While an increase in response times or in demand on public facilities, services, and utilities do not, on their own, constitute an environmental impact under CEQA, if such an increase requires the construction of new or expanded public facilities to meet the increased demand, then the construction necessitated by that project will require CEQA analysis and, potentially, mitigation. (*City of Hayward v. Trustees of California State University* (2015) 242 Cal.App.4th 833.)

Should the proposed project fail to comply with the relevant General Plan policies and actions related to fire service, the impact from the proposed project could be ***potentially significant*** regarding the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

XV-1. *Prior to building permit issuance, the developer shall cause the project to be annexed into the most current Community Facilities District established for Emergency Medical and Fire Protection Service Funding, per Brentwood Municipal Code Chapter 17.635.*

XV-2. *The project applicant shall participate in a Community Facilities District, which has been established by the Fire District and will include annual assessments in an amount sufficient to cover the service costs associated with the new residences.*

b. The City of Brentwood Police Department (Brentwood Police) provides law enforcement and police protection services throughout the City over an area of approximately 14 square miles, and would provide police protection services to the project site. The Brentwood Police station is located at 9100 Brentwood Boulevard, approximately 3.75 miles southeast of the project site. As of 2021, the Brentwood Police Department employed 72 sworn officers, meaning the City has a ratio of approximately 1.11 sworn officers per 1,000 residents.[17]

The Brentwood General Plan includes eight policies and five actions (Policies CSF 1-1 through 1-3, and 3-1 through 3-5; and Actions CSF 1a and 3a-d) to provide that police protection services are provided in a timely fashion, are adequately funded, are coordinated between the City and appropriate service agency, and that new development pays their fair share of services. Among the policies and actions included in the Brentwood General Plan that are applicable to the project are the following:

- Policy CSF 3-4: Emphasize the use of physical site planning as an effective means of preventing crime. Open spaces, landscaping, parking lots, parks, play areas, and other public spaces should be designed with maximum feasible visual and aural exposure to community residents;
- Policy CSF 3-5: Promote coordination between land use planning and urban design through consultation and coordination with the Police Department during the review of new development applications;

[17] Brentwood Police Department. *2021 PD Performance Report.* Available at: https://www.brentwoodca.gov/home/showpublisheddocument/4840/637835438572570000. Accessed April 2023.

- Action CSF 1a: Requiring new development to pay their fair share fees of the cost of on and off-site community services and facilities; and
- Action CSF 3c: As part of the development review process, consult with the police department in order to ensure that the project design facilitates adequate police staffing and that the project addresses its impacts on police services.

Because the proposed project would increase population, the proposed project could require increased use of police protection services. The project applicant would be required by the City to comply with the above policies and actions, which have been included for the purposes of mitigation impacts related to police protection services. For example, Action CSF 1a requires new development to pay their fair share fees of the cost of on and off-site community services and facilities. The fees would provide existing police facilities with additional funding for personnel, equipment, and other facility needs.

Based on the above, the project could have a ***potentially significant*** impact regarding the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

XV-3. *Prior to approval of the final map, the developer shall cause the project to be annexed into the most current City Community Facilities District, per Brentwood Municipal Code Chapter 17.636.*

c. The project site is located within the Brentwood Union School District and Liberty Union High School District. Development of the proposed project would generate additional students in the area. However, the developer is required to pay development impact fees to help pay for public services that include public schools. Thus, any increased demand for educational facilities resulting from the proposed project would be mitigated through payment of such fees. In addition, Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "legislative or adjudicative act involving the planning, use, or development of real property." (Government Code § 65996(b).) Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be "full and complete mitigation." Therefore, according to SB 50, the payment of the necessary school impact fees for the project would be full and satisfactory CEQA mitigation. As such, a ***potentially significant*** impact may occur to school facilities without such mitigation.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

XV-4. *Prior to building permit issuance, the developer shall submit to the Community Development Department written proof from the Liberty Union High School District and the Brentwood Union School District that appropriate school mitigation fees have been paid.*

d,e. A six-acre parcel within the northwest portion of the site and a 3.39-acre parcel within the southeast portion of the site, totaling 9.39 acres, would be dedicated to the City of Brentwood for use as public parks (see Figure 4, Parcel A and Parcel G). The parks would provide a recreational amenity for residents of the proposed single-family subdivision. Landscaping elements would be provided throughout the proposed park area and all other developed portions of the site consistent with City requirements.

Chapter 16.150 of the City's Municipal Code specifies that subdivision projects including more than fifty parcels are required to dedicate 0.0160 acre of land per dwelling unit for park purposes. In addition, Policy CSF 2-2 of the City's General Plan requires that the City achieve and maintain a minimum overall citywide ratio of five acres of parkland per 1,000 residents.

The proposed project would include the development of 286 single-family residences. Applying the Brentwood standard of 3.22 residents per dwelling unit, the proposed project would create housing for approximately 921 residents. The Brentwood General Plan calls for five acres of park per 1,000 residents. The proposed project would thus require approximately 4.6 acres of park space for the new residents. As discussed above, the proposed project would include the development of 9.39 acres of park space on-site. Therefore, the proposed project would include a sufficient amount of parkland, as defined by the Brentwood General Plan.

Additionally, the increase in residents to the City of Brentwood could increase the use of other public facilities, such as libraries. The City has established a Development Impact Fee Program to supplement the Community Facility Fee Fund, which covers funding sources for public facilities, including library operations. The fees are collected at issuance of building permit for new development with fees determined by the fee schedule in effect at the time of permit issuance. As a standard condition of project approval, the project applicant is required to pay the City's development impact fee pursuant to the Schedule of City Fees in effect at the time of issuance of building permits. As such, the proposed project would result in a less-than-significant impact related to library facilities.

Based on the above, the project would have a ***less-than-significant*** impact regarding the need for new or physically altered parks or other public facilities, the construction of which could cause significant environmental impacts.

XVI. RECREATION. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	✖	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	✖	☐

Discussion

a. As explained above under Question 'd' of the Public Services section, the VTSM for the proposed project includes more than sufficient park land acreage for the proposed 286 single-family units. Therefore, the proposed project would have a ***less-than-significant*** impact with respect to increasing the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

b. The proposed project would not require the expansion of any existing recreational facilities in the project region. While the project would include the construction of new park facilities within the project site, the physical effects associated with construction of such facilities has been evaluated throughout this IS and further in the REIR. With the exception of potential impacts related to air quality, biological resources, hazards and hazardous materials, noise, GHG emissions, energy, and transportation, which will be further evaluated in the Air Quality, Greenhouse Gas Emissions, and Energy, Biological Resources, Hazards and Hazardous Materials, Noise, and Transportation and Circulation chapters, respectively, of the REIR, all environmental impacts have been determined to be less than significant with implementation of mitigation in this IS. Therefore, a ***less-than-significant*** impact would occur.

XVII. TRANSPORTATION. *Would the project:*		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a.	Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	✖	☐	☐	☐
b.	Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	✖	☐	☐	☐
c.	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	✖	☐	☐	☐
d.	Result in inadequate emergency access?	✖	☐	☐	☐

Discussion

a. The proposed project would result in an increase in resident vehicle traffic on the street system surrounding the project area. The proposed project has the potential to generate new bicycle and pedestrian traffic as well. Determination of traffic impacts based solely on vehicle level of service (LOS) is no longer allowable based on CEQA Guidelines Section 15064.3. However, the potential remains for the proposed project to result in conflicts with City programs, plans, ordinances, and policies related to transportation facilities, including transit, roadway, bicycle, and pedestrian facilities. Therefore, a ***potentially significant*** impact could occur.

Further analysis of the above impact will be included in the Transportation and Circulation chapter of the Bridle Gate Project REIR.

b. Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Per Section 15064.3, for projects commencing July 1, 2020, analysis of vehicle miles travelled (VMT) attributable to a project will be considered the most appropriate measure of transportation impacts for CEQA purposes. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Given that the proposed project would generate new vehicle trips, a ***potentially significant*** impact could occur.

Further analysis of the above impact will be included in the Transportation and Circulation chapter of the Bridle Gate Project REIR.

c,d. Vehicular access to the proposed project would be provided from Sand Creek Road to the north and from San Jose Avenue to the south. The internal circulation system would consist of multiple roads to all the residences. The proposed increase in development intensity of the site through development of the proposed project could cause an increase in traffic-related hazards or affect emergency access in the project area. Without further evaluation, the proposed project could result in a ***potentially significant*** impact related to an increase in hazards from design features or incompatible uses, or inadequate emergency access to the project.

Further analysis of the above impact will be included in the Transportation and Circulation chapter of the Bridle Gate Project REIR.

XVIII. TRIBAL CULTURAL RESOURCES. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).	☐	✖	☐	☐
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	✖	☐	☐

Discussion

a,b. As discussed in Section V, Cultural Resources, of this IS, the Updated Cultural Report prepared for the proposed project included a record search of the NWIC and a NAHC Sacred Lands File search. Per the NAHC Sacred Lands File, the site does not contain known tribal cultural resources.

In compliance with AB 52 (Public Resources Code Section 21080.3.1), the City distributed project notification letters to the following tribes: Wilton Rancheria, Chicken Ranch Rancheria of Me-Wuk Indians, Guidiville Indian Rancheria, Nashville Enterprise Miwok-Maidu-Nishinam Tribe, Tule River Indian Tribe, The Ohlone Indian Tribe, North Valley Yokuts Tribe, Muwekma Ohlone Indian Tribe of the SF Bay Area, Wukasche Indian Tribe/Eshom Valley Band, The Confederated Villages of Lisjan, Indian Canyon Mutsun Band of Costanoan, and Amah Mutsun Tribal Band of Mission San Juan Bautista. The letters were distributed on October 28, 2022. Requests to consult were not received from any of the aforementioned tribes.

Based on the history of disturbance at the project site as a result of past development and agricultural uses, as well as the lack of identified tribal cultural resources at the site, known tribal cultural resources are not expected to occur within the site. Nevertheless, the possibility exists that development of the proposed project could result in a substantial adverse change in the significance of a tribal cultural resource if previously unknown tribal cultural resources are uncovered during grading or other ground-disturbing activities. Thus, a ***potentially significant*** impact to tribal cultural resources could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

XVIII-1. *If tribal cultural resources are discovered during project-related construction activities, all ground disturbances within a minimum of 50 feet of the find shall be halted until a qualified professional archaeologist can evaluate the discovery. The archaeologist shall examine the resources,*

assess their significance, and recommend appropriate procedures to the lead agency to either further investigate or mitigate adverse impacts. If the find is determined by the lead agency in consultation with the Native American tribe traditionally and culturally affiliated with the geographic area of the project site to be a tribal cultural resource and the discovered archaeological resource cannot be avoided, then applicable mitigation measures for the resource shall be discussed with the geographically affiliated tribe. Applicable mitigation measures that also take into account the cultural values and meaning of the discovered tribal cultural resource, including confidentiality if requested by the tribe, shall be completed (e.g., preservation in place, data recovery program pursuant to Public Resources Code §21083.2[i]). During evaluation or mitigative treatment, ground disturbance and construction work could continue on other parts of the project site.

XIX. UTILITIES AND SERVICE SYSTEMS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	✖	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	✖	☐
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	✖	☐
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	✖	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	✖	☐

Discussion

a-c. Brief discussions of the water, wastewater, stormwater drainage, electrical, and telecommunications facilities that would serve the proposed project are included below.

Water

The primary source of raw water supply to the City of Brentwood is provided by the Sacramento/San Joaquin Rivers Delta, and is then treated at the City of Brentwood Water Treatment Plant. Buildout of the City's planning area, including the project site, is accounted for in the City's UWMP, which provides a detailed analysis of the City's water distribution system. The City also has an adopted Capital Improvement Program (CIP) that includes improvements necessary to provide safe and reliable water delivery throughout the City based on projected growth and associated increases in demand on the City's distribution system. According to the General Plan EIR, in accordance with General Plan policies and applicable regulations, impacts related to the construction or expansion of water facilities or infrastructure would be less than significant.

The proposed project would be provided water service by the City through connections to the existing 16-inch water mains in Sand Creek Road along the project frontage. From the points of connection, eight- and 16-inch water lines would be extended throughout the site and would connect to each of the proposed buildings.

According to the General Plan EIR, sufficient water supplies would be available to serve buildout of the General Plan from existing entitlements and resources, and new or expanded entitlements would not be required during single- and multiple-dry years. Therefore, the General Plan EIR concluded that in accordance with applicable regulations and water conservation policies, as well as applicable General Plan polices, impacts under

normal, single-dry and multiple-dry years would be less than significant. The City of Brentwood has adopted the 2020 UWMP, which analyzes the City's water supply and demand. The information presented in the 2020 UWMP provides an updated analysis of the City's water supply and demand, compared to what was included in the City's General Plan EIR. According to the City's UWMP, the projected water supply exceeds the water demand for normal, single-dry, and multiple-dry years until at least 2045.

Given that the proposed project is consistent with the site's current General Plan land use designation, the type and intensity of growth that would be induced by the proposed project was generally considered in the General Plan and associated water use has been analyzed in the General Plan EIR and the City's updated 2020 UWMP. Therefore, the proposed project would not require or result in the construction of new water treatment facilities or expansion of existing facilities, and sufficient water supplies would be available to serve the project from existing entitlements and resources.

Wastewater

The Public Works Department's Wastewater Division operates and maintains the City's Wastewater Treatment Plant (WWTP), a tertiary treatment plant that provides recycled water for a variety of landscape and industrial uses. According to the City of Brentwood General Plan EIR, the WWTP has an average dry weather flow capacity of 5 million gallons per day (mgd) and was designed to be expandable to an average dry weather flow capacity of 10 mgd. The WWTP is also currently being expanded to accommodate an average dry weather flow capacity of 6.4 mgd. The expansion is expected to be completed in 2023.[18] After being treated, wastewater is normally discharged into Marsh Creek or recycled for irrigation.

The General Plan EIR bases anticipated wastewater demand on a generation rate of 243 gallons per day (gpd) per residence. The proposed project would include the construction of 286 residential units. Therefore, the proposed project would be anticipated to generate a total of 69,498 gpd of wastewater.[19] Wastewater services would be provided to the project site through connections to existing eight-inch pipes in Sand Creek Road, and would extend throughout the site to each residence.

An increase of 69,498 gpd is relatively minor compared to the 3.4 mgd of average dry weather flow currently treated by the WWTP, and would not have a substantial impact on the available capacity of the WWTP. However, the General Plan EIR states that buildout of the General Plan within the city limits would result in the generation of 10.2 to 12.5 mgd, which is above the projected treatment capacity of the City's WWTP, following completion of the capacity expansion improvements. Therefore, additional development would require expansions to the WWTP in order to accommodate full buildout of the General Plan. While full buildout of the proposed General Plan would slightly exceed the existing treatment capacity of the WWTP, the General Plan includes provisions to ensure that new development cannot be approved until it can be demonstrated that adequate capacity is available to serve it. The General Plan determined that through implementation of the goals, policies, and actions to ensure an adequate and reliable wastewater collection and treatment system included in the General Plan, impacts associated with wastewater treatment and compliance with waste discharge requirements are less than significant. Because the proposed project is consistent with the project site's current General Plan

[18] City of Brentwood. *2020 Urban Water Management Plan.* June 2021, revised December 2021.
[19] 286 residential units X 243 gpd per residential unit = 69,498 total gpd.

land use designation, construction and operation of the proposed project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities. However, the City requires that design calculations be reviewed and approved by the City Engineer as part of the development process to ensure the wastewater demand can be accommodated.

Stormwater

The General Plan EIR determined that compliance with the General Plan policies and action listed above would ensure that adequate stormwater drainage and flood control infrastructure exists to serve future developed under the General Plan, and a less than significant impact would occur to stormwater facilities. The project site is currently undeveloped, vacant land. Completion of the proposed project would increase site runoff due to the introduction of impervious surfaces to the site. As discussed in further detail in Section X, Hydrology and Water Quality, of this IS, the proposed project would comply with the most recent Contra Costa Clean Water Program Stormwater C.3 Guidebook, as well as all City stormwater requirements. In compliance with the C.3 Guidebook, the proposed project would include on-site bioretention facilities sized to exceed the minimum volume requirement necessary to adequately manage all runoff from the proposed impervious surfaces. Therefore, the proposed project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Electricity and Telecommunications

Electricity service for the proposed project would be provided by PG&E by way of existing electrical infrastructure in the project vicinity. The proposed project would not use natural gas. The project would not require major upgrades to, or extension of, existing infrastructure. Thus, impacts to electricity and telecommunications infrastructure would be less than significant.

Conclusion

Based on the above, the proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. In addition, sufficient water supplies would be available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years, and adequate wastewater treatment capacity is available to serve the project's projected demand in addition to the provider's existing commitments. Thus, a ***less-than-significant*** impact would occur.

d,e. The solid waste from Brentwood is disposed of at Keller Canyon County landfill. Keller Canyon Landfill covers 1,399 acres of land; 244 acres are permitted for disposal. The site currently handles 2,500 tons of waste per day, although the permit for the site allows up to 3,500 tons of waste per day to be managed at the facility. According to the California Department of Resources Recycling and Recovery (CalRecycle), the Keller Canyon Landfill has a remaining capacity of 63,408,410 cubic yards out of a total permitted capacity of 75,018,280 or 85 percent remaining capacity.[20]

[20] California department of Resources Recycling and Recovery (CalRecycle). *Facility/Site Summary Details: Keller Canyon Landfill (07-AA-0032)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/4407?siteID=228. Accessed April 2023.

As noted above, the proposed project would be consistent with the project site's existing General Plan land use designations. As such, solid waste generation associated with the single-family residences has been previously anticipated for the site. Furthermore, the project would be required to comply with all applicable provisions of Chapter 8.16, Solid Waste, of the City's Municipal Code. Therefore, the proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals and would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. Thus, the proposed project's impact to solid waste would be ***less than significant***.

XX. WILDFIRE. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	✖	☐
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	✖	☐
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	✖	☐
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	✖	☐

Discussion

a-d. According to the CAL FIRE Fire and Resource Assessment Program, the project site is not located within or near a state responsibility area or lands classified as a Very High Fire Hazard Severity Zone (VHFHSZ).[21] The nearest VHFHSZ is approximately eight miles west of the project site. Therefore, the site is not in or near a VHFHSZ. Based on the above, the proposed project would not be subject to risks related to wildfires, and a ***less-than-significant*** impact would occur.

However, for informational purposes, the area directly south of the project site is occupied with residential development, which would act as a fire break, reducing the potential for fire to spread to the project site from the south. Similarly, the area to the east of the site consists of SR 4 and other existing development. The area to the north consists of actively maintained and irrigated agricultural land, which would not be considered a substantial fire risk. However, the area to the west of the site is undeveloped. With implementation of the proposed project, site clearing activities would remove vegetation within the developable area and would create a buffer between the undeveloped area and the proposed residences. Furthermore, development of the proposed project would include the installation of fire suppression systems (e.g., fire hydrants, fire sprinklers, smoke detectors) and would be designed in accordance with the latest requirements of the California Fire Code. In accordance with State standards, the project would be required to maintain defensible space to provide a fire break that would prevent the spread of ground fires and protect on-site structures. The proposed project would also be subject to fire safety requirements of the CCCFPD. Compliance with such would ensure that the potential hazards associated with wildland fires to the proposed buildings and structures would be reduced.

[21] California Department of Forestry and Fire Protection. *Contra Costa County, Very High Fire Hazard Severity Zones in LRA*. January 7, 2009.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	✖	☐	☐	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	✖	☐	☐	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	✖	☐	☐	☐

Discussion

a. As discussed in Section IV, Biological Resources, of this IS, the proposed project could potentially result in impacts to special-status plant and wildlife species and other biological resources. Thus, implementation of the proposed project could have the potential to degrade the quality of the environment by potentially reducing the habitat for special-status plant and animal species. In addition, the project could have a substantial adverse effect on riparian habitat or other sensitive natural communities. The project site is predominantly undeveloped, has been previously disturbed, and does not contain any known historic or prehistoric resources. Thus, implementation of the proposed project is not anticipated to have the potential to result in impacts related to archaeological resources or human remains. Nevertheless, Mitigation Measures V-1, V-2, and V-3 would ensure that in the event that prehistoric resources are discovered within the project site, such resources would be protected in compliance with the requirements of CEQA and other State standards.

Considering the above, although the proposed project would not eliminate important examples of the major periods of California history or prehistory, the project has the potential to degrade the quality of the environment, substantially reduce or impact the habitat of fish or wildlife species, cause fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. Therefore, a ***potentially significant*** impact would occur.

Further analysis of the above potential impacts upon biological resources will be included in the Biological Resources chapter of the Bridle Gate Project REIR.

b. The proposed project in conjunction with other development within the City of Brentwood could incrementally contribute to cumulative impacts in the project area, particularly in relation to air quality, GHG emissions, and transportation. A discussion of cumulative impacts associated with the proposed project will also be discussed in the Statutorily

Required Section chapter, as well as in relevant technical chapters of the Bridle Gate Project REIR. Thus, a ***potentially significant*** impact could occur with regard to cumulative impacts in the project area.

Further analysis of the above impacts will be included in the Bridle Gate Project REIR.

c. As described in this IS, implementation of the proposed project could result in impacts related to air quality, biological resources, energy, GHG emissions, hazards and hazardous materials, noise, and transportation. As such, in the absence of further study, the project could cause substantial adverse effects on human beings, and a ***potentially significant*** impact could occur.

Further analysis of the above impacts will be included in the Bridle Gate Project REIR.

Appendix A

Geotechnical Exploration

GEOTECHNICAL EXPLORATION

ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

SUBMITTED

TO

WEST COAST HOME BUILDERS, INC.

CONCORD, CALIFORNIA

PREPARED

BY

ENGEO INCORPORATED

PROJECT NO. 3359.2.050.01

SEPTEMBER 15, 1999

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Project No.
3359.2.050.01

September 15, 1999

Mr. Richard Sestero
West Home Builders, Inc.
4021 Port Chicago Highway
P.O. Box 4113
Concord, CA 94524-4113

Subject: Ellisondo Parcel
Brentwood, California

GEOTECHNICAL EXPLORATION

Dear Mr. Sestero:

With your authorization, we conducted a geotechnical exploration at your proposed residential project located southwest of the intersection of San Jose Avenue and Sand Creek Road, in Brentwood, California.

The accompanying report contains our exploration data, conclusions, and recommendations for grading and final development of the project. It is our opinion that the proposed development is feasible from a geotechnical standpoint provided the recommendations included in this report are incorporated into the project plans and implemented during construction.

We are pleased to be of service to you on this project and will continue to consult with you and your design team as project planning progresses.

Very truly yours,

ENGEO INCORPORATED

Debra Carey, CEG

Theodore P. Bayham, RCE

dc/tpb/ja:gex

Reviewed by:

Paul C. Guerin, GE

REGISTERED PROFESSIONAL ENGINEER
THEODORE P. BAYHAM
NO. C48793
EXP. 9-30-00
CIVIL
STATE OF CALIFORNIA

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INTRODUCTION

At your request, we conducted a geotechnical exploration at the Ellisondo property located southwest of the intersection of San Jose Avenue and Sand Creek Road, in Brentwood, California.

Purpose

The purpose of this study is to evaluate subsurface information and perform a geotechnical exploration to develop geotechnical conclusions and recommendations for proposed mixed single-family residential and commercial development and appurtenant roadways. This report contains our conclusions regarding site development, recommendations for site preparation and grading, foundation design for the residential structures and preliminary roadway design. Details regarding the proposed structures and improvements for the commercial portions of the site have not been determined at this time; as such, it is anticipated that design-level explorations may be required for future commercial buildings at the site after details regarding proposed building types and structural loads, individual pad grading, and building layouts have been determined.

Scope of Services

The scope of our work included:

1. Review of available maps and reports regarding geotechnical and geologic characteristics of the subject site.
2. Exploratory drilling and logging of sixteen borings.
3. Sampling and laboratory testing of subsurface materials.
4. Analysis of the geotechnical data.
5. Preparation of this report presenting our findings and recommendations.

Once grading and improvement plans have been prepared for the planned project, ENGEO Incorporated should review these for conformance with the intent of our recommendations. During that time, ENGEO may need to perform supplemental analyses and/or modify the recommendations contained herein, as deemed appropriate.

Site Location and Description

The subject site, known as the Ellisondo property, is situated west of San Jose Avenue and south of the existing Sand Creek Road in Brentwood, California. The location of the site is shown on the Site Location Map, Figure 1. The property is located northeast of Mt. Diablo and northwest of Brentwood and encompasses an area of about 160 acres. Structures presently on the property consist of one residence and a farm building in the northeast corner of the site. An existing PG&E natural gas pipeline crosses the western margin of the property as shown in the air photograph (1992), Figure 2. Sand Creek Road borders the property on the north, San Jose Avenue borders the property on the east, undeveloped lands border the property on the west, and an existing residential development borders the southern side of the site. At the time of our field exploration (May 1999), the nearly square-shaped property was undeveloped. Prior uses for the site include dry-land farming, agriculture and extraction of crude oil. Previously existing oil wells have been permanently closed and abandoned (Oxy USA Inc., 1992).

The central and western portions of the project site contain moderately sloping hillsides along a northwesterly trending ridge. A northwesterly trending valley is located west of the ridge. A portion of Sand Creek crosses the northern portion of the property. The northeastern and eastern portions of the site consist of gently easterly sloping topography ranging in elevation from approximately 120 feet above mean sea level (msl) to approximately 160 feet above msl. The highest elevation at the site is along the ridge in the southwestern portion of the site, at an approximate elevation of 230 feet above msl.

Proposed Development

According to a conceptual development plan provided to us (Figure 3) by West Coast Home Builders, Inc., (untitled and undated), the northern half of the site will be developed for commercial use and the southern half of the site will be developed for residential use. Details regarding the residential and commercial development have not been determined at this time.

As indicated on the conceptual development plan, mass grading at the site is anticipated to involve cuts in the south center of the site on the upper portion of two small rolling hills, and fills are anticipated on the eastern half and northern, lower elevations. The maximum cuts are anticipated to be approximately 30 feet deep, and the maximum fills are anticipated to be up to about 20 to 30 feet thick along the lower elevation areas. Designated undeveloped open space is shown along the western and southern margins of the site.

We understand that the residential area will be developed with one- to two-story-high detached residential buildings. The number of units, layout and structural details regarding the planned residential lots has not been determined at this time; however, based on similar developments, it is anticipated that the building loads for the residential development will be light to moderate. It is anticipated that site development will include the installation of underground utilities, and construction of interior roadways servicing the planned development. The details regarding the commercial structures and layout in this area have not been determined at this time.

The conceptual diagram indicates that Sand Creek Road will be realigned and pass through the site generally in an east-west direction. Sand Creek Road will separate the residential and commercial developments. The proposed Route Four bypass will traverse the northeast corner of the site with an interchange at Sand Creek Road.

FIELD EXPLORATION

Our field exploration was conducted in May 1999 and consisted of drilling sixteen test borings throughout the site. The borings ranged in depth from about 15 to 30 feet and were located at the approximate locations shown on Figure 5. The borings were located by taping or pacing from existing features and the shown locations should be considered approximate.

Test borings were drilled by Ram Drilling using a truck-mounted B-24 drill rig with 4-inch-diameter continuous flight augers. Soil samples recovered during drilling were retrieved using a 3-inch O.D. California-type split-spoon sampler fitted with 6-inch-long brass liners and a 2-inch O.D. standard penetration test split-spoon sampler.

Blow counts were obtained using a 140-pound hammer with a 30-inch drop. Penetration resistance of driven samples was field recorded as the number of blows needed to drive the sampler 18 inches in 6-inch increments, and the blow counts on the boring logs are recorded as the number of blows required for the last one foot of penetration. No correction factors have been applied to field blow counts presented on the boring logs.

Borings were logged in the field by an ENGEO geologist. The field logs were then used to develop the report borelogs (Figures 7 through 22). The logs depict subsurface conditions within the borings for the date of drilling; however, subsurface conditions may vary with time.

Laboratory Testing

Samples recovered during borehole drilling were tested to determine the following soil characteristics:

Test	ASTM Designation	Location of Results Within this Report
Natural Unit Weights and Moisture Contents	D-2216	Boring Logs, Figures 7 through 22
Atterberg Limits	D-4318	Figure 23
Unconfined Compression Strength	D-2166	Figures 24 through 26
Swell Potential "B"	D-4546	Figures 27 through 30
Compaction Curve	D-1557	Figures 31 and 32
Resistance R-Value	Cal 216	Figures 33 and 34

The purpose of these tests is explained in Table II. The laboratory test results are shown on the borelogs (Figures 7 through 22) and are summarized on Table III. Individual test results are presented on Figures 23 through 35.

Subsurface Stratigraphy

Soils found at the site consist of natural alluvial deposits and shallow deposits of residual soil over bedrock. The soil deposits consist predominately of stiff to hard sandy to silty clay with some silty and clayey sand layers. The upper 5 to 15 feet of the soil is moist. Below this upper layer, the clayey soil is typically stiff to very stiff, and the granular material is generally medium dense to dense. Markley formation bedrock is located beneath the soils on site.

Plasticity Indices (PI) of on-site materials range from 24 to 43. This indicates that the on-site materials have a moderate to critically high shrink-swell potential when subjected to fluctuations in moisture content.

Ground Water

Ground water was not encountered during drilling. All ENGEO boreholes were backfilled on the day of drilling with cement grout in accordance with Contra Costa County Health Services Department requirements. Fluctuations in ground-water levels may occur seasonally and over a period of years because of precipitation, changes in drainage patterns, irrigation and other factors. Future landscape irrigation may cause an overall rise in ground-water levels.

GEOLOGIC CONDITIONS

Bedrock and Sediment Geology

The geology in the area has been mapped by Brabb, Sonneman and Switzer (1971), and Atwater (1982) of the U.S. Geological Survey. Faults in the area have been mapped by Atwater (1982) and Pampeyan (1979) of the U.S. Geological Survey, C. W. Jennings (1977) of the California Division of Mines and Geology, and by Weber-Band (1998) in a thesis for the University of California.

The site sediments are composed of alluvium from Sand Creek. Sand Creek is located within the northern portion of the site and flows easterly. The alluvium deposited on site consists of silt, sand and gravel, mixed with clay. As shown on the Regional Geologic Map, Figure 4, the sediments are mapped as Qa (alluvium). These materials are unconsolidated.

Bedrock at the site consists of Eocene-age Markley Sandstone (Tem). Markley Sandstone is massive, with a distinctive component of mica and also contains claystone and siltstone interbeds. The Markley Sandstone is mapped beneath the ridge in the southwestern portion of the site and extends beneath the younger alluvium (Qa) in the north and eastern portions of the site. The deeper bedrock beneath the site is faulted by inactive faults and has provided structural traps for reservoirs of oil and natural gas. The oil and natural gas deposits beneath the site are considered nearly depleted due to extraction in the last century.

The bedrock formation at the site is relatively young and weak. Weathering has further weakened the rock, as has fracturing from overburden unloading and tectonics. Bedrock strikes to the northwest/west and dips shallowly to the northeast. As such, north facing cut slopes may be susceptible to slope instability. Further consultation regarding slope stability should be made as project planning progresses.

Review of USDA Soil Map

The USDA (1977) soil designations shown on Figure 2 indicate that the soils on the hilly portions of the site consist of Altamont clay (AbD, AbE). Altamont clay typically consists of 2 to 3 feet of dark grayish brown clay, underlain by grayish brown, silty clay, and grayish brown shale to more than 5 feet in depth. Altamont clay is described as having a high shrink-swell potential and medium to low shear strength. Permeability is rated as slow. This soil type is also noted for its high corrosivity.

The nearly level areas in the northeastern portion of the site are mapped as Brentwood clay (Bb), Capay clay (CaA) or Sycamore silty clay (Sp). These soils typically consist of 1½ to 3 feet of brown to dark grayish brown clay, underlain by brown to yellowish brown clay to silty clay, and mottled grayish brown, brown and reddish brown silty clay to more than 5 feet in depth. These soils are described as having a high shrink-swell potential and medium to low shear strength. Permeability is rated as slow. These soil types are also noted for their high corrosivity. Shallow ground water may be encountered in areas underlain by Sycamore silty clay.

Faulting and Seismicity

The site is not located within a State of California Earthquake Fault Zone. No active faults are mapped on the property. The nearest State of California zoned, active[1] faults are the Greenville and Concord faults, located about 9 miles southwest and 13 miles west, respectively.

[1] An active fault is defined by the State Mining and Geology Board as one that has had surface displacement within Holocene time (about the last 10,000 years) (Hart, 1992). The State of California has prepared maps designating zones for special studies that contain these active earthquake faults.

Large historical earthquakes have not occurred within the Brentwood area. Historical seismicity has been limited to low magnitude and microseismic events. Historically, distant sources to the west of Brentwood have produced the largest earthquakes and nearby sources have produced a sporadic background of smaller earthquakes with low to intermediate magnitudes.

Table I summarizes pertinent faults in the region along with the peak ground accelerations expected at the site from each fault during the maximum moment earthquake magnitude. Figure 6 shows the approximate locations of these faults. Distant seismic ground shaking sources include the major known active faults of the Bay Area, namely the San Andreas, Hayward, Calaveras, Rodgers Creek-Healdsburg and the Concord-Green Valley faults. These sources are all at least 10 miles west of the Brentwood area and are known to be capable of producing moderate to large-scale seismic events.

Sources for design basis ground shaking near the Brentwood area include the Calaveras, Concord, and Greenville faults, small local faults that may produce low magnitude earthquakes, and deeper wrench faulting in the lower crust (Weber-Band, 1998). This crustal scale wedging is estimated by Blake (1993) to be capable of a maximum moment earthquake on the order of magnitude 7. The magnitude 6.7 Coalinga earthquake in 1983 is thought to have occurred on the buried thrust fault in the lower crust often referred to as the Coast Ranges-Sierran Block (CRSB) boundary zone (Unruh and others, 1993). Earthquakes on blind thrust faults are not expected to cause surface ground rupture as might occur along a major strike slip fault, however, secondary seismic hazards could be expected from such an event.

Based on the current state of knowledge, it appears likely that secondary seismic hazards from an earthquake on any of the above listed sources including the Coast Ranges-Sierran Block boundary zone, would occur in all regional areas of localized weak soils such as on unstable slopes or in improperly constructed fills. Site grading recommendations are designed with this in mind.

DISCUSSION AND CONCLUSIONS

Based on the findings from subsurface explorations, laboratory test results and analyses, we conclude that the proposed residential development is feasible from a geotechnical standpoint. The recommendations included in this report, along with sound engineering practices, should be incorporated into the design of the project and also implemented during construction of the project.

The main geotechnical concerns for the proposed site development include:

(1) The presence of moderate to highly expansive soil and bedrock materials which are susceptible to significant volume changes (swell and compression) with varying moisture contents.

(2) The presence of existing unstable colluvial deposits along slopes.

(3) The presence of near surface soft and compressible colluvial and alluvial deposits susceptible to excessive total and differential settlements.

Other geotechnical matters addressed in this report include: seismic hazards, stability of proposed cut and fill slopes; preliminary foundation recommendations; retaining walls design criteria; preliminary pavement design; underground utilities; drainage and subdrainage recommendations, and shrinkage/swell factors.

Expansive Soils

The expansive nature of the native soil and bedrock is of significant geotechnical concern in this region. The clayey soil and clayey bedrock materials within the subject area display Plasticity Indices (PI) of 24 to 43, which is an indication of moderate to high potential for shrink-swell behavior.

Expansive soils shrink and swell as a result of moisture changes. This can cause heaving and cracking of slabs-on-grade, pavements and foundations. Building damage due to volume changes associated with expansive soils can be reduced by performing proper moisture conditioning and compaction of fill materials within selected ranges to reduce their swell potential, and using structurally reinforced "rigid" mats or post-tensioned mats designed to resist the deflections associated with the soil expansion. Foundation criteria are further discussed in the "Foundations" section of this report.

Successful construction on expansive soils requires special attention during construction. It is imperative that exposed soils be kept moist by occasional sprinkling for several days prior to placement of concrete for foundation construction. It is extremely difficult to remoisturize clayey soils without excavation, moisture conditioning, and recompaction. Mitigation measures should include the prevention of moisture variation.

Rough Shrinkage/Swell Factors

The factors provided below should be considered rough estimates since several assumptions were made in the calculations. Rough estimates for shrinkage/swell factors of the on-site soil/rock materials are as follows:

1. Colluvium and near surface alluvial deposits within the upper 5 feet of existing grade are estimated to have an average shrinkage factor of about 10 percent.
2. Bedrock cuts are estimated to have an average swell factor of about 5 percent.

Slope Stability

It is our opinion that the geologic conditions at the site capable of causing slope instability are colluvial deposits mapped along the side slopes of the ridge in the southwestern portion of the

site. Based on a review of the tentative development plans, it appears that upper portions of the identified colluvial areas will be removed by design cut. In general, the lowest risk approach is to remove these deposits in their entirety. This approach is recommended for the colluvial deposits along slopes within the limits of grading. In areas where major cut slopes are to remain in-place upslope of areas of the development, it is recommended that a 20-foot-wide debris bench with a keyed toe buttress fill be constructed. The debris bench should be of sufficient width to act as a run-out or catchment area for potential upslope debris (Figure 38).

Although slope instability can be a significant hazard, it can also be mitigated by proper grading measures. Recommendations for maximum slope gradients, slope rebuilding and construction of debris benches between rear property lines and open space slopes are provided in the recommendations section of this report.

Compressible Colluvial and Soft Alluvial Deposits

Excessive total and differential settlement at the site may also result from consolidation of the soft and compressible colluvial and alluvium deposits typically encountered in the upper 2 feet in lower elevation areas where fills will be placed and from settlement of foundation elements supported over these compressible colluvial and soft alluvial deposits.

To reduce settlement resulting from these deposits, it is recommended that these deposits be overexcavated, completely removed, and replaced with engineered fill material. It is anticipated that these deposits may be reused as fill material.

Artificial Fill Materials

Areas of artificial fills extending up to 5 feet in thickness are present surrounding the previous oil and gas well sites. It is not known whether or not these materials were placed as engineered fill.

Information regarding the placement and compaction of these materials (if available) should be reviewed if these existing fills are proposed to remain in-place. Otherwise, assuming these materials are uncontrolled, they are considered highly susceptible to excessive total and differential settlements. Therefore, to reduce potential total and differential settlements, any uncontrolled existing fills should be completely overexcavated and removed. The actual extent of the fill will need to be determined during grading and will require removal and replacement with properly engineered fill. If existing artificial fills are cleared of unsuitable debris, rubble and any hazardous materials, these soils are anticipated to be suitable for reuse as engineered fill.

Swell/Settlement Related to Deep Fill

Fills up to about 30 feet in thickness are anticipated in the lower lying areas. It is estimated that deep fills will undergo settlement during placement and continuing for a period of time following mass grading. As the fills eventually become wetted from irrigation and rainfall over a long period of time (possibly several years following site grading), additional movements (i.e. heave or compression) of the fill may result due to the effects of hydro-expansion/compression. The magnitude and depth of swell is dependent on many factors including the clay component of the fill, in-place fill density, moisture content, surcharge loads, etc.

Based on our laboratory test results, remolded on-site materials exhibit swell upon inundation under surcharge loads of less than about 2,000 pounds per square foot (psf), which corresponds to approximately 15 feet of fill. At increased surcharge loads greater than about 2,000 psf, the remolded on-site materials (compacted to 90 percent at 3 percent above optimum moisture content) are expected to exhibit minor compression when inundated. On this basis, we estimate that subsequent to the initial settlement of the fill material, about 1 to 2 inches of total long-term heave may result once the fills become wetted. In the deeper portions of the fill, some hydro-compression or settlement may result from long-term wetting. Figure 35 shows the

graphic plot of measured swell/settlement of on-site materials upon inundation for various surcharge loads.

Bedrock Rippability and Suitability

Based on field observations during drilling at the subject site, blow counts recorded in the exploratory borings, and laboratory test results, it is our opinion that the site bedrock should be rippable with conventional heavy construction equipment (such as a Caterpillar D-8). Trenching for utilities should be excavatable with conventional equipment.

In general, all soil and bedrock materials observed on the site appear suitable for use as engineered fill, if properly processed. If rocks greater than 6 inches in diameter are encountered during grading, these should be placed in accordance with recommendations provided in the "Soil Materials" Section 2.02A-1 of Part 2 of the Guide Contract Specifications in the Appendix.

Seismic Hazards

Potential seismic hazards resulting from a nearby moderate to major earthquake can be classified as primary or secondary. The primary hazard is ground rupture, or surface faulting. The common secondary seismic hazards include ground shaking, ground lurching, landsliding, soil liquefaction, densification and lateral spreading. These hazards are discussed in the following sections. Based on topographic and lithologic data, the risk from regional subsidence or uplift, tsunamis or seiches is considered low to unlikely at the site.

Ground Rupture. Since there are no known active faults crossing the site and the property is not within an Earthquake Fault Special Study Zone, the likelihood of primary fault ground rupture is considered low.

Ground Shaking. An earthquake of moderate to high magnitude generated within the San Francisco Bay Region could cause considerable ground shaking at the site. The degree of shaking is dependent on the magnitude of the event, the distance to its epicenter and local geologic conditions. Deterministic computer studies from California fault data yield maximum moment horizontal accelerations at the site of up to 0.3 g based on the attenuation relation by Campbell and Bozorgnia (1994) (Table I).

To mitigate ground shaking effects, all structures should be designed using sound engineering judgment and the latest 1997 Uniform Building Code (UBC) requirements as a minimum. Based on the subsurface soil conditions encountered and the Greenville fault seismic source, the site may be characterized for design, based on Chapter 16 of the 1997 UBC using the following information:

Categorization/Coefficient	Design Value
Soil Profile Type (Table 16-J)	S_c
Seismic Zone (Figure 16A-2)	4
Seismic Zone Factor (Table 16-I)	0.4
Seismic Source Type (Table 16-U)	B
Near Source Factor N_a (Table 16-S)	1.0
Near Source Factor N_v (Table 16-T)	1.0
Seismic Coefficient C_a (Table 16-Q)	0.40 N_a
Seismic Coefficient C_v (Table 16-R)	0.56 N_v

We anticipate that these factors should be reevaluated during structural design.

Conformance to current building code recommendations does not constitute any kind of guarantee that significant structural damage will not occur in the event of a maximum magnitude earthquake. The design-basis earthquake ground motion for residential and commercial construction has a 10 percent chance of exceedance in 50 years according to the 1997 UBC.

Lurching. Ground lurching is a result of the rolling motion imparted to the ground surface during energy released by an earthquake. Such rolling motion can cause ground cracks to form. The potential for the formation of these cracks is considered greater at contacts between deep alluvium and bedrock. While such an occurrence is possible at the site, the offset or strain is expected to be very minor.

Seismically-Induced Landslides. Seismically induced landslides are triggered by earthquake ground shaking. The risk of this hazard is greatest in the late winter when ground-water levels are highest and hillside colluvium is saturated. This risk is also present at the site to varying degrees depending on the slope conditions and time of year. In our opinion, the hazard of seismically induced landsliding to the proposed structures can be best mitigated by properly engineered stabilization of hillslopes or creation of sufficient buffers between hillslope areas and development areas.

Liquefaction. Liquefaction is a phenomenon in which saturated, cohesionless soils are subject to a temporary but essentially total loss of shear strength because of pore pressure build-up under the reversing cyclic shear stresses associated with earthquakes. Based on the material types and densities (blow counts) of granular materials encountered in our borings and the lack of ground water, the risk of liquefaction is considered low at this site.

Densification Due to Earthquake Shaking. Densification of granular soils above and below the ground-water level can cause settlement due to earthquake-induced vibrations. Since there are no loose granular deposits at the site, densification is expected to be minor.

Lateral Spreading. Lateral spreading is a failure within a nearly horizontal soil zone (possibly due to liquefaction) which causes the overlying soil mass to move toward a free face, or down a

gentle slope. It is our opinion, that lateral spreading at the site is unlikely, due to the low liquefaction potential.

Differential Fill Thickness

We recommend that the differential fill thickness under individual buildings be less than 10 feet. Local subexcavation of soil material and replacement by engineered fill will be necessary to achieve this requirement (Figure 39). Overexcavation requirements will be provided by the Geotechnical Engineer based on review of the final 40-scale grading plans.

Corrosion Potential

The USDA (1977) classified the on-site soils of having a high corrosion potential to uncoated steel. Based on this finding, we conclude that chemical tests should be conducted on subgrade soils prior to foundation and utility construction.

GRADING RECOMMENDATIONS

Supplemental recommendations and modifications to the geotechnical recommendations presented herein should be provided during grading, as needed. As-built keyway and subdrain locations should be submitted at the completion of grading.

Grading

We recommend that the final grading plans for the project be developed in coordination with ENGEO in order to mitigate known soil and rock conditions. Before contract bidding, the final grading plans should be reviewed by ENGEO.

Prior to grading, a notification of at least 48 hours is needed in order for ENGEO to coordinate its schedule with the grading contractor. Grading operations should meet the requirements of the "Guide Contract Specifications" included in the Appendix and must be observed and tested by ENGEO's field representative.

After the grading operations commence, the Engineering Geologist should make geologic observations of cut areas at frequent intervals. This is advised so that geologic recommendations can be updated as grading proceeds.

Demolition and Stripping

Site development will commence with the removal of the existing vegetation and any other improvements, uncontrolled existing fills, excavation and removal of buried structures including utilities, septic tanks and their leach fields. Underground structures, which could act as water traps or could deteriorate, should be removed from the project site.

All debris, vegetation or loose, soft compressible materials in any location to be graded should also be removed as necessary for project requirements. The Geotechnical Engineer should determine the depth of removal of such materials in the field at the time of grading.

Topsoil is estimated to be from 6 to 12 inches in thickness depending on location. The Geotechnical Engineer or his/her qualified representative in the field should determine the actual depths of removal of these materials. Subject to approval by the Landscape Architect, strippings and organically contaminated soils can be used in landscape areas. Otherwise, such soils should be removed from the project site. Any topsoil that will be retained for future use in landscape areas should be stockpiled in areas where it will not interfere with grading operations.

Excavations resulting from demolition and stripping below design grades should be cleaned to a firm undisturbed soil surface determined by the Geotechnical Engineer. This surface should then be scarified, moisture conditioned and backfilled with compacted engineered fill. The requirements for backfill materials and placement operations are the same as those for engineered fill as described in the "Fill Placement" section.

No loose or uncontrolled backfilling of depressions resulting from demolition and stripping are permitted.

Graded Slopes

For the long-term stability of the site and to minimize maintenance, ENGEO recommends that major graded slopes be constructed at slope gradients not exceeding 3:1 (horizontal:vertical). Steeper slope gradients are acceptable in specific limited situations; however, in no case are unreinforced graded slopes to be steeper than 2:1 (horizontal:vertical) as indicated in the table below. The following slope gradient guidelines may generally be applied for mass grading design.

Maximum Slope Gradients (horizontal:vertical)	Fill Slope Height (ft)	Cut Slope Height (ft)
2:1	Less than 15	Less than 4
3:1	Greater than 15	Greater than 4

An Engineering Geologist should observe all cuts in bedrock for features that indicate adverse slope stability. All fill slopes should be adequately keyed into the underlying bedrock where called for by the Geotechnical Engineer, or firm natural materials unaffected by shrinkage cracks (Figures 36 and 38).

Flooding and Creek Bank Protection

A portion of the site is located along Sand Creek. The flooding potential for the areas along the creek should be evaluated by the project Civil Engineer. The required creek bank and bed protection along the proposed improvements should be provided by the project Erosion Control Specialist in conjunction with the project hydrologist and should include erosion control measures and surface protection along the project. Based on experience in the vicinity, we recommend that a minimum structure setback for buildings be determined by projection of a 3:1 (horizontal:vertical) imaginary surface from the toe elevation of the creek banks to proposed finished grades above the top of the banks plus an additional horizontal distance of 15 feet beyond this 3:1 projection.

Selection of Materials

With the exception of organically contaminated soil containing more than 2 percent organics, the site soils are suitable for use as engineered fill. The Geotechnical Engineer should be informed when import materials are planned for the site. Import materials should conform to Section 2.02B of Part I of the Guide Contract Specifications in the Appendix and must be

approved by the Geotechnical Engineer. A sample of such material should be submitted to the Geotechnical Engineer for evaluation by laboratory testing prior to delivery at the site.

Fill Placement

After stripping or subexcavation, the firm undisturbed surface should be scarified to a depth of 12 inches, moisture conditioned and recompacted to provide adequate bonding with the initial lift of fill. All fills should be placed in thin lifts. The lift thickness should not exceed 8 inches or the depth of penetration of the compaction equipment used, whichever is less.

The following compaction control requirements are generally applied to general fills:

1. Moderately to highly expansive soils and bedrock material (P.I greater than 12) to be used as fill should be compacted as follows: Within the upper 5 feet of finished grade, these fill materials should be moisture conditioned to at least 4 percent above optimum moisture content and compacted to between 85 and 90 percent relative compaction. At depths between 5 and 30 feet of finished grade, these fill materials should be moisture conditioned to at least 3 percent above optimum moisture content and compacted to at least 90 percent relative compaction. At depths greater than 30 feet below finished grade, these fills should be moisture conditioned to at least 3 percent over optimum moisture content and compacted to not less than 95 percent relative compaction.

2. Non- to low-expansive soil and bedrock materials (P.I. less than or equal to 12) to be used as fill should be compacted as follows. Within the upper 30 feet of finished grade, these fills should be moisture conditioned to above optimum moisture content and compacted to not less than 90 percent relative compaction. At depths greater than 30 feet below finished grade, these fills should be moisture conditioned to above optimum moisture content and compacted to not less than 95 percent relative compaction.

Relative compaction refers to in-place dry density of the fill material expressed as a percentage of the maximum dry density as determined by ASTM D-1557-91. Optimum moisture is the moisture content corresponding to the maximum dry density.

It is important that all site preparation, including demolition and stripping, be done under the observation of a Geotechnical Engineer or his/her field representative and should be carried out according to the requirements contained in the Guide Contract Specifications in Appendix A.

Foundations

The major consideration in foundation design at the site is the swelling potential of the on-site soils. The effect of heaving can be minimized by the choice of a proper foundation system. In order to reduce the effects of the potentially expansive soils, the foundations should be sufficiently stiff to move as rigid units with minimum differential movements. This section provides recommendations for appropriate foundation types for proposed residential structures. It is anticipated that design level explorations may be required for commercial structures once details regarding these have been determined.

Provided the surface soil materials are removed and recompacted as recommended in the "Fill Placement" section, a mat foundation system can be used to support the proposed residential buildings. Either post-tensioned slabs or conventional thickened slabs can be used. We anticipate that structural mats constructed on swelling soils will move differentially. Structural mats may need to be stiffened to reduce differential movements due to swelling/shrinkage to a value compatible with the type of structure that will be constructed. The Geotechnical Engineer should review the final foundation plans when they become available to check for conformance with these recommendations. In addition, the Geotechnical Engineer or his/her representative should observe foundation construction.

We recommend that the foundation slabs be underlain by a sand cushion and a tough vaporproof membrane, at least 10 mils thick (Part I of Guide Contract Specifications, Section 2.05D), to minimize moisture condensation under the floor coverings. The Architect should be consulted on this matter.

Reinforced Structural Mats

It is anticipated that mat foundations can be used to support the proposed one- or two-story residential structures on level building pads. For building areas capped with a minimum of 3 feet of non- to low-expansive fill (depending on its availability), these structural mats should be designed for unsupported interior span distances of 10 feet minimum, and an edge cantilever distance of 3 feet minimum. These reinforced structural mats should have a minimum thickness of 8 inches.

For building areas capped with less than 3 feet of non- to low-expansive materials, these structural mats should be designed for a 6-foot-edge cantilever distance and a 20-foot unsupported interior-span distance. These structural mats should have a minimum thickness of 10 inches.

All mats should be reinforced with top and bottom steel, as determined by the Structural Engineer to provide structural continuity and permit spanning of local irregularities. Structural reinforced mats should be designed to accommodate a maximum differential movement of 1/600 of the effective span without experiencing structural distress to the slabs or excessive deflections in the framing and wall finishes. Structural mats should be designed for an allowable uniform soil pressure of 1,000 pounds per square foot (psf). All mats should be designed with a thickened edge at least 12 inches wide and 2 inches increased thickness along the edge. The minimum backfill height of soil against the mat at the perimeter should be 6 inches.

Post-Tensioned Slabs

Post-tensioned slabs should be designed according to the method recommended in the Design and Construction of Post-Tensioned Slabs-on-Ground (PTI–latest edition). The following soil design criteria for the post-tensioned slab foundations may be used:

Thickness of Non- to Low Expansive Cap	Center Lift Condition		Edge Lift Condition	
	e_m (feet)	y_m (inches)	e_m (feet)	y_m (inches)
Minimum 3 feet	5.5	3.6	4.0	0.9
Less than 3 feet	5.5	4.0	4.0	1.4

These values should be confirmed after grading based upon soil conditions at subgrade level on the building pads. The post-tensioned slabs should be designed to impose a maximum allowable bearing pressure of 1,000 pounds per square foot (psf) for dead-plus-live loads. This value may be increased by one-third when considering total loads including wind or seismic loads. All post-tensioned slabs should be designed with a thickened edge at least 12 inches wide and 2 inches increased thickness along the edge. The minimum backfill height of soil against the slab at the perimeter should be 6 inches.

Post-tensioned slabs should be designed to accommodate a maximum differential movement of 1/600 of the effective span without experiencing structural distress to the slabs or excessive deflections in the framing and wall finishes.

Foundation Subgrade Presaturation

The subgrade material under structural mats and post-tensioned slabs should be smooth, uniform and non-yielding under the weight of compaction equipment. In addition, the foundation subgrade should be moisture conditioned by presoaking or sprinkling these areas immediately (typically within 48 hours) prior to placement of the concrete foundation elements. In general,

presoaking should be performed in such a manner as to obtain moisture contents of at least 4 percent above optimum. The subgrade should not be allowed to dry prior to concrete placement. The moisture content of the foundation subgrade soils should be checked by the Geotechnical Engineer prior to their acceptance to receive concrete.

Secondary Slab-on-Grade Construction

This section provides guidelines for secondary slabs such as porch slabs, exterior patio slabs, walkways, driveways and steps. Secondary slabs-on-grade should be constructed structurally independent of the foundation system. This allows slab movement to occur with a minimum of foundation distress. Where slab-on-grade construction is anticipated, care must be exercised in attaining a near-saturation condition of the subgrade soil before concrete placement.

Slabs-on-grade should be designed specifically for their intended use and loading requirements by the Structural Engineer. As mentioned previously, some of the site soils have a moderate to high expansion potential; therefore, cracking of conventional slabs should be expected in the future. To reduce and control cracking, slabs-on-grade should be reinforced with steel rebar and provided with frequent control joints. The actual reinforcement should be designed by the Structural Engineer and should, as a minimum, consist of No. 3 bars spaced 16 inches on center each way. In our experience, welded wire mesh is not sufficient to control slab cracking.

Secondary slabs-on-grade should have a minimum thickness of 4 inches. A 4 inch thick layer of clean crushed rock or gravel (Section 2.04, Part I of "Guide Contract Specifications") should be placed under all concrete slabs.

Steel should not be used to tie porch slabs, exterior patio slabs, driveways, walkways and steps to adjacent foundations. Exterior slabs may be constructed with thickened edges extending at least

6 inches into compacted soil to minimize water infiltration, and they should slope away from the building to prevent water from flowing toward the buildings.

Retaining Walls

Unrestrained drained retaining walls less than 10 feet in vertical height and constructed on level ground may be designed for active lateral fluid pressures determined as follows:

Backfill Slope Condition (horizontal:vertical)	Active Pressure (pound per cubic foot (pcf))
Level	50
4:1	55
3:1	60
2:1	70

Passive pressures acting on wall foundations may be assumed as 250 pcf provided that the area in front of the retaining wall is level for a distance of at least 10 feet or three times the depth of foundation. The upper one-foot of soil should be excluded from passive pressure computations unless it is confined by pavement or a concrete slab.

The friction factor for sliding resistance may be assumed as 0.35. It is recommended that retaining wall footings be designed using an allowable bearing pressure of 2,500 psf in firm native materials or fill. Appropriate safety factors against overturning and sliding should be incorporated into the design calculations. The Geotechnical Engineer should be consulted on design values where surcharge loads such as from automobiles are expected or where a downhill slope exists below a proposed wall.

All retaining walls should be provided with drainage facilities to prevent the buildup of hydrostatic pressures behind the walls. Wall drainage may be provided using a 4-inch-diameter

perforated pipe embedded in Class 2 permeable material (Part I of Guide Contract Specifications, Section 2.05B), or free-draining gravel surrounded by synthetic filter fabric. The width of the drain blanket should be at least 12 inches. The drain blanket should extend to about one foot below the finished grades. As an alternative, prefabricated synthetic wall drain panels can be used. The upper one-foot of wall backfill should consist of on-site clayey soils. Collector perforated pipes should be directed to an outlet approved by the Civil Engineer. Subdrain pipe, drain blanket and synthetic filter fabric should meet the minimum requirement as listed in Part I of the Guide Contract Specifications.

All backfill should be placed in accordance with recommendations provided above for engineered fill. Light equipment should be used during backfill compaction to minimize possible overstressing of the walls.

Preliminary Pavement Design

Based on the field explorations and laboratory testing, we estimate that site materials have R-values ranging from 5 to 12. The following preliminary pavement sections have been determined for Traffic Indices of 5.0 to 9.0 and an assumed a minimum R-value of 5. According to methods contained in Topic 608 of Highway Design Manual by CALTRANS and City of Brentwood requirements, the following minimum asphaltic concrete pavement sections are recommended:

Traffic Index	Alternative I		Alternative II		
	AC (in.)	AB (in.)	AC (in.)	AB (in.)	ASB (in.)
5.0	4*	9*	--	--	--
6.0	4*	9*	--	--	--
7.0	4*	16	4*	9*	8
8.0	5	18	5	9*	10
9.0	5.5	21	5.5	9*	13

Notes: AC is asphaltic concrete
AB is aggregate base Class 2 Material with minimum R = 78
ASB is aggregate subbase with minimum R = 50
* - Minimum pavement section component thickness as required by City of Brentwood
In addition, where R-Value of less than 10 is determined in final pavement area subgrades, the City of Brentwood requires that the pavement area subgrade be completely blanketed with a geotextile subgrade supporting membrane.

The Traffic Index should be determined by the Civil Engineer or appropriate public agency. These sections are for estimating purposes only. Actual sections to be used should be based on R-value tests performed on samples of actual subgrade materials recovered at the time of grading.

Pavement materials and construction should comply with the specifications and requirements of the Standard Specifications by the State of California Division of Highways, City of Brentwood requirements and the following minimum requirements.

- All pavement subgrades should be scarified to a minimum depth of 12 inches below finished subgrade elevation; low expansive subgrade soils should be moisture conditioned to above optimum and compacted to at least 95 percent relative compaction and moderate to highly expansive subgrade soils should be moisture conditioned to not less than 3 percent above and compacted to at least 92 percent relative compaction.

- Subgrade soils should be in a stable, non-pumping condition at the time aggregate baserock materials are placed and compacted.

- Adequate provisions must be made such that the subgrade soils and aggregate baserock materials are not allowed to become saturated.

- Class 2 Aggregate Subbase Materials should meet current Caltrans specifications for Class 2 Aggregate Base and should be compacted to at least 95 percent of maximum dry density.
- Asphalt paving materials should meet current Caltrans specifications for asphalt concrete.
- All concrete curbs separating pavement and irrigated landscaped areas should extend into the subgrade and below the bottom of adjacent aggregate baserock materials.

Drainage

The building pads must be positively graded at all times to provide for rapid removal of surface water runoff from the foundation systems and to prevent ponding of water under floors or seepage toward the foundation systems at any time during or after construction. Ponded water will cause undesirable soil swell and loss of strength.

Ponding of storm water must not be permitted on the building pads during prolonged periods of inclement weather. As a minimum requirement, finished grades should have slopes of at least 3 to 5 percent within 7 feet from the exterior walls at right angles to them to allow surface water to drain positively away from the structures. For paved areas, the slope gradient can be reduced to 2 percent. All surface water should be collected and discharged into the storm drain system. Landscape mounds must not interfere with this requirement. Sufficient area drains should be constructed around the residential buildings to remove excessive surface water.

All roof storm water should be collected and directed to downspouts. Storm water from roof downspouts should be directed to a solid pipe that discharge to the street or to an approved outlet.

Requirements for Landscaping Irrigation

Vegetation should not be planted immediately adjacent to structures. If planting adjacent to the buildings is desired, we recommend using plants that require very little moisture with drip irrigation systems.

Sprinkler systems should not be installed where they may cause ponding or saturation of foundation soils within 5 feet of the walls or under structures. Ponding or saturation of foundation soils may cause soil swell, consequent loss of strength, and movements of the foundation and slabs.

Irrigation of landscaped areas should be strictly limited to that necessary to sustain vegetation. Excessive irrigation could result in saturating, weakening, and possible swelling of foundation soils. The Landscape Architect and prospective owners should be informed of the surface drainage requirements included in this report.

If, at any time, the drainage or irrigation requirements cannot be followed, it is very important that the foundation soils be protected from adverse wetting caused by poor drainage. This can be accomplished by installing perimeter subdrains.

Ponding of storm water, except within engineered sediment detention basins, should not be permitted at the site, particularly during work stoppage for rainy weather. Before the grading is halted by rain, positive slopes should be provided to direct the surface runoff water in a controlled manner.

Utilities

It is recommended that utility trench backfilling be done under the observation of a Geotechnical Engineer. Pipe zone backfill (i.e. material beneath and immediately surrounding the pipe) may consist of a well-graded import or native material less than ¾ inch in maximum dimension compacted in accordance with recommendations provided above for engineered fill. Trench zone backfill (i.e. material placed between the pipe zone backfill and the ground surface) may consist of native soil compacted in accordance with recommendations for engineered fill.

Where import material is used for pipe zone backfill, we recommend it consist of fine- to medium-grained sand or a well-graded mixture of sand and gravel and that this material not be used within 2 feet of finish grades. In general, uniformly-graded gravel should not be used for pipe or trench zone backfill due to the potential for migration of: (1) soil into the relatively large void spaces present in this type of material, and (2) water movement along trenches backfilled with this type of material. All utility trenches entering buildings and paved areas must be provided with an impervious seal consisting of native materials or concrete where the trenches pass under the building perimeter or curb lines. The impervious plug should extend at least 3 feet to either side of the crossing. This is to prevent surface water percolation into the sands under foundations and pavements where such water would remain trapped in a perched condition, allowing clays to develop their full expansion potential.

Care should be exercised where utility trenches are located beside foundation areas. Utility trenches constructed parallel to foundations should be located entirely above a plane extending down from the lower edge of the footing at an angle of 45 degrees. Utility companies and Landscape Architects should be made aware of this information.

Utility trenches in areas to be paved should be constructed in accordance with City of Brentwood requirements. Compaction of native trench backfill by jetting should not be allowed at this site.

If there appears to be a conflict between City or other agency requirements and the recommendations contained in this report, this should be brought to the Owner's attention for resolution prior to submitting bids.

To evaluate the corrosivity of the site soils, we recommend chemical testing of the subgrade soils after completion of rough grading in order to determine what type of cement should be used in concrete, and if special protection of concrete reinforcement and metal utility lines will be required.

LIMITATIONS AND UNIFORMITY OF CONDITIONS

This report is issued with the understanding that it is the responsibility of the owner to transmit the information and recommendations of this report to developers, owners, buyers, architects, engineers, and designers for the project so that the necessary steps can be taken by the contractors and subcontractors to carry out such recommendations in the field. The conclusions and recommendations contained in this report are solely professional opinions.

The professional staff of ENGEO Incorporated strives to perform its services in a proper and professional manner with reasonable care and competence but is not infallible. There are risks of earth movement and property damages inherent in land development. We are unable to eliminate all risks or provide insurance; therefore, we are unable to guarantee or warrant the results of our work.

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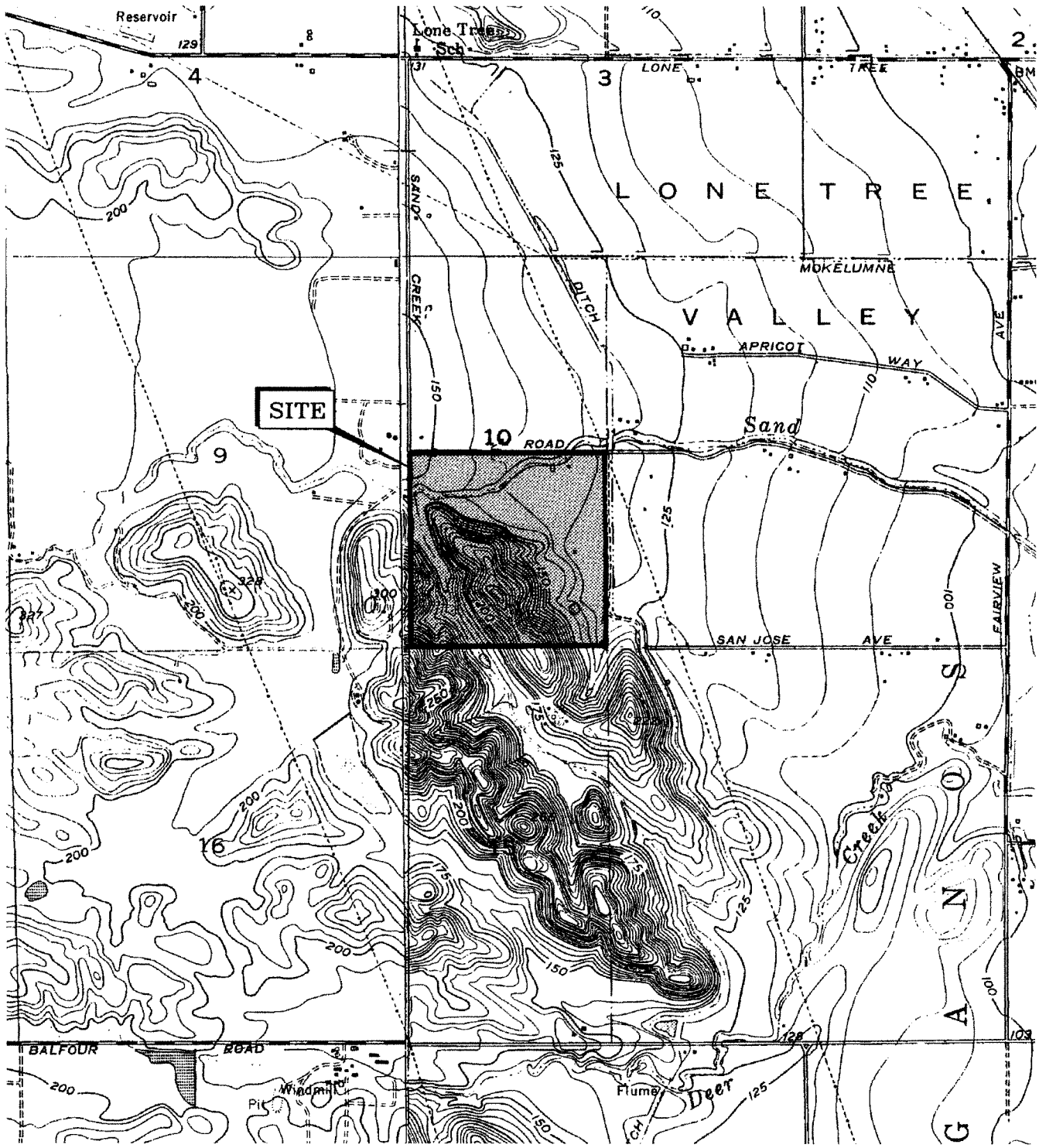
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APPENDIX A

Figure 1	Site Location Map
Figure 2	Air Photograph
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Figures 27 through 30	ASTM Swell Potential B Test Results
Figures 31 and 32	Compaction Curve Results
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Figure 37	Typical Subdrain Details
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Guide Contract Specifications

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SOURCE: U.S.G.S.

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SITE LOCATION MAP

ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

PROJECT NO.: 3359.2.050.01	FIGURE NO. 1
DATE: FEBRUARY 1999	
DRAWN BY: LB	CHECKED BY: TB



EXPLANATION

AbD	ALTAMONT CLAY, 9–15% SLOPES
AbE	ALTAMONT CLAY, 15–30% SLOPES
Bb	BRENTWOOD CLAY LOAM
CaA	CAPAY CLAY, 0–2% SLOPES
RbA	RINCON CLAY LOAM, 0–2% SLOPES
Sp	SYCAMORE SILTY CLAY LOAM, CLAY SUBSTRATUM

0 FEET 400
0 METERS 200

N

SOURCE: PACIFIC AERIAL SURVEYS, AV 4230-0134-9, 5-8-92, WITH USDA SOILS MAP, 1975 OVERLAY

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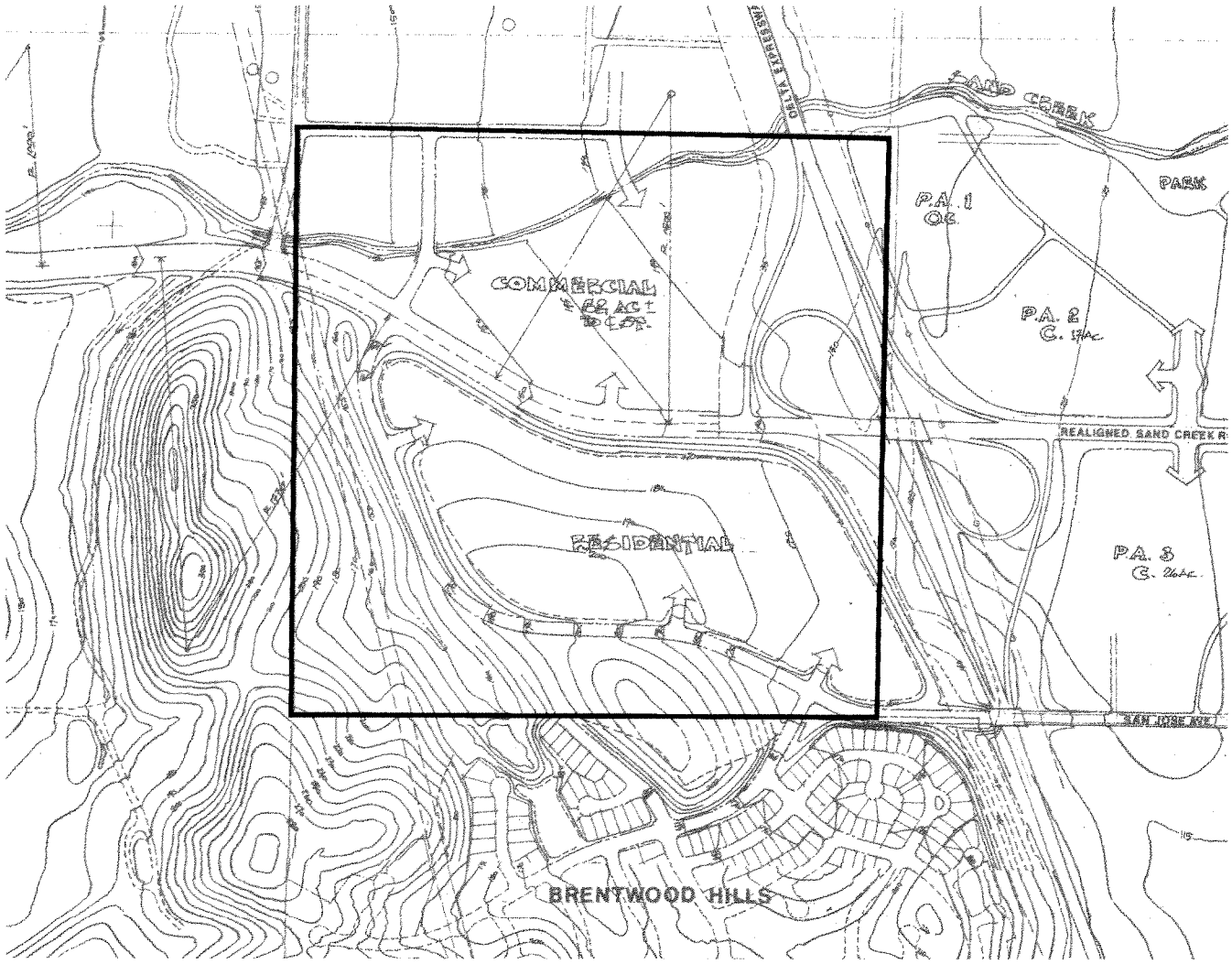
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AIR PHOTOGRAPH
ELLISONDO PARCEL
BRENTWOOD, CALIFORNIA

PROJECT NO.: 3359.2.050.01
DATE: FEBRUARY 1999
DRAWN BY: LB CHECKED BY: TB

FIGURE NO. 2

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0 FEET 800
0 METERS 400

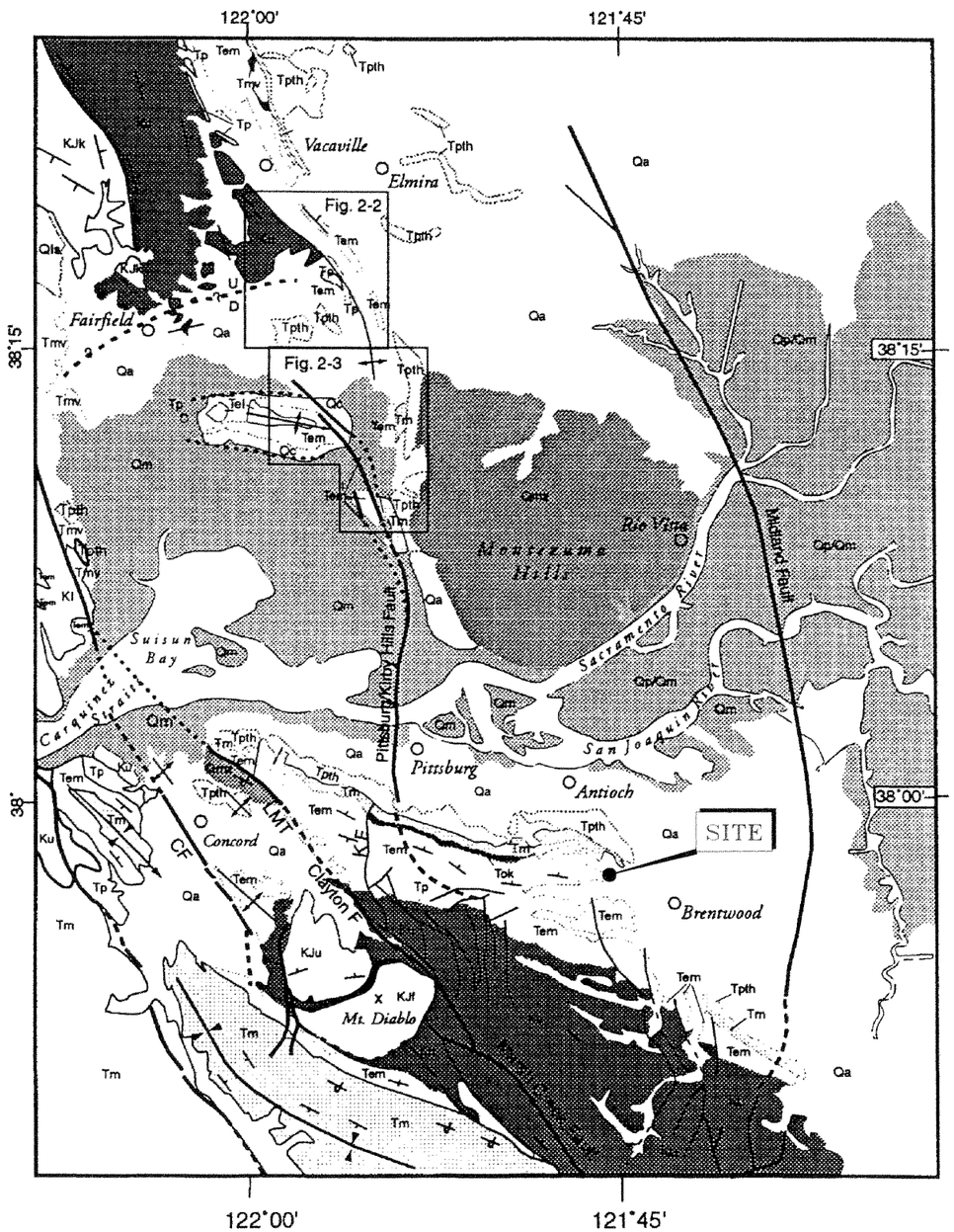
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CONCEPTUAL DIAGRAM
ELLISONDO PARCEL
BRENTWOOD, CALIFORNIA

PROJECT NO.: 3359.2.050.01	FIGURE NO. 3
DATE: FEBRUARY 1999	
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EXPLANATION

SURFICIAL DEPOSITS

Alluvial deposits — Basin deposits

- Qsc — stream channel deposits
- Qa — alluvium
- Qls — landslide deposits
- Qsd — sand dunes
- Qm — marsh
- Qp — peat

FANS AND TERRACES

- Modesto Fm (?) — Qml — lower member: higher alluv. terrace & fans; stands a meter or less above Qa and Qb
- Qt — Travertine in small patches in southern Vaca Mountains; possibly marking ancient fault.

OLDER UNCONSOLIDATED UNITS

- (Rockland ash) — Qra — age = 0.45 my loosely agg. pummice lapilli ash; occurs to the south in the San Joaquin Valley
- Montezuma Fm approx. 200 m — Qmz — deeply weathered and dissected arkosic gravels, silts; contains local pumice beds. = Turlock Lake fm; = Tulare fm

angular unconformity

SEDIMENTARY ROCKS INCLUDING SOME VOLCANIC ROCKS

- Tehama Fm 150-300 m — Tpth — pale-green, gray, and tan sandstone and siltstone with lenses of cross-bedded pebble and cobble conglomerate of Coast Range and Sierran sources.
- Lawlor tuff 15-30 m — pumiceous tuff; age: 4.1±0.2 my (Sarna-Wojcecki, 1991)

angular unconformity

- Neroly Fm <760 m — Tmn — blue sandstone, minor shale, siltstone, tuff and andesite conglomerate. Contains a siltstone bed at top just south of Antioch (max 60 m thick). Marine grades into non-marine towards the top.
- Tm
- Cierbo Fm 60-600 m — Tmc — Brown, gray, and white standtone, minor conglomerate, tuff, and shale. Marine.
- Volcanics — Tmv — Basalt, vesicular and porphyritic; locally present north of Vacaville and in Los Medanos Hills.

- Kirker Fm 0-100 m — Tok — Locally contains a white tuff at the top (Kirker Tuff); light-gray tuffaceous sandstone, minor conglomerate and siltstone. Marine.

HOLOCENE / PLEISTOCENE / PLIOCENE / MIOCENE / OLIGOCENE

MIDDLE EOCENE / LOWER EOCENE / PALEOCENE / UPPER CRETACEOUS / LOWER CRETACEOUS / JUR / CRET

* Markley gorge only in subsurface

- Markley Fm. 200-1100 m — Tem — Massive reddish-brown to tan micaceous sandstone with minor amounts of light-gray thinly bedded shales; middle member is a light tan, thinly laminated siliceous shale.
- Nortonville Fm. 100-200 m — Ten — Brown mudstone and grayish-green claystone, minor siltstone and sandstone.
- Domengine Fm. 500-1300 m — Ted — Massive medium-grained brownish-gray to white cross-bedded sandstone with lensoid conglomerate beds and thin coal units.
- Capay Fm. & Hamilton Sand 650 m / Meganos Fm. 550 m — Tel — Brownish gray, thinly-bedded, clay shale and mudstone; light-gray sandstone with pebble conglomerate at base; marine.
  * Meganos gorge-fill: outcrops only along northeast flank of Mt. Diablo. Gray-brown sandstone and blue-gray shale with many sandstone interbeds; marine.
- Martinez Fm. 300 m — Tp — Massive brown and greenish-gray sandstone, frequently glauconitic, siltstone and interbeds of foraminiferal shale.
  * Martinez gorge and fill only in subsurface.
- Undiff. Upper Cretaceous ~6500 m
  - unnamed upper Cret. units — Ku — Massive sandstone, siltstone and shale, minor conglomerate. Marine. (Maestrichtian)
  - Forbes mem. — Kfo — Brown-gray clay shale with thin sand and silt interbeds. Marine.
  - Guinda mem. — Kg — Massive and thick-bedded tan-gray sandstone, common leaf impressions. Marine.
- Lower Cret. >1200 m — Kl — Shale and mudstones with thin to thick sandstone beds; some conglomerate beds. Distal turbidites.
- Knoxville Fm. >900 m — KJk — Mainly dark gray mudstone, minor siltstone, sandstone and 2 to 3 inch thick beds of limestone. Marine.

fault contact

- Franciscan Formation (thickness unknown) — KJf — Melange at Mt. Diablo consists of blocks of red and green chert, greenstone, graywacke, in a matrix of serpentinite, black argillite and shale. Tectonic assemblage of marine rocks.
- Franciscan Formation — Serpentinite along Coast Range Fault exposed at Mt. Diablo.

U / D — Fault, active or potentially active. U, upthrown side; D, downthrown side. Arrows show relative horizontal movement. Query indicates that fault location is uncertain or that further extent of fault is unknown.

56 — Strike and dip of bedding, (northwest, dip to northeast)

63 — Strike and dip of overturned bedding, (dip to northeast)

Anticline, plunging; axis dotted where inferred

Syncline, axis dotted where inferred

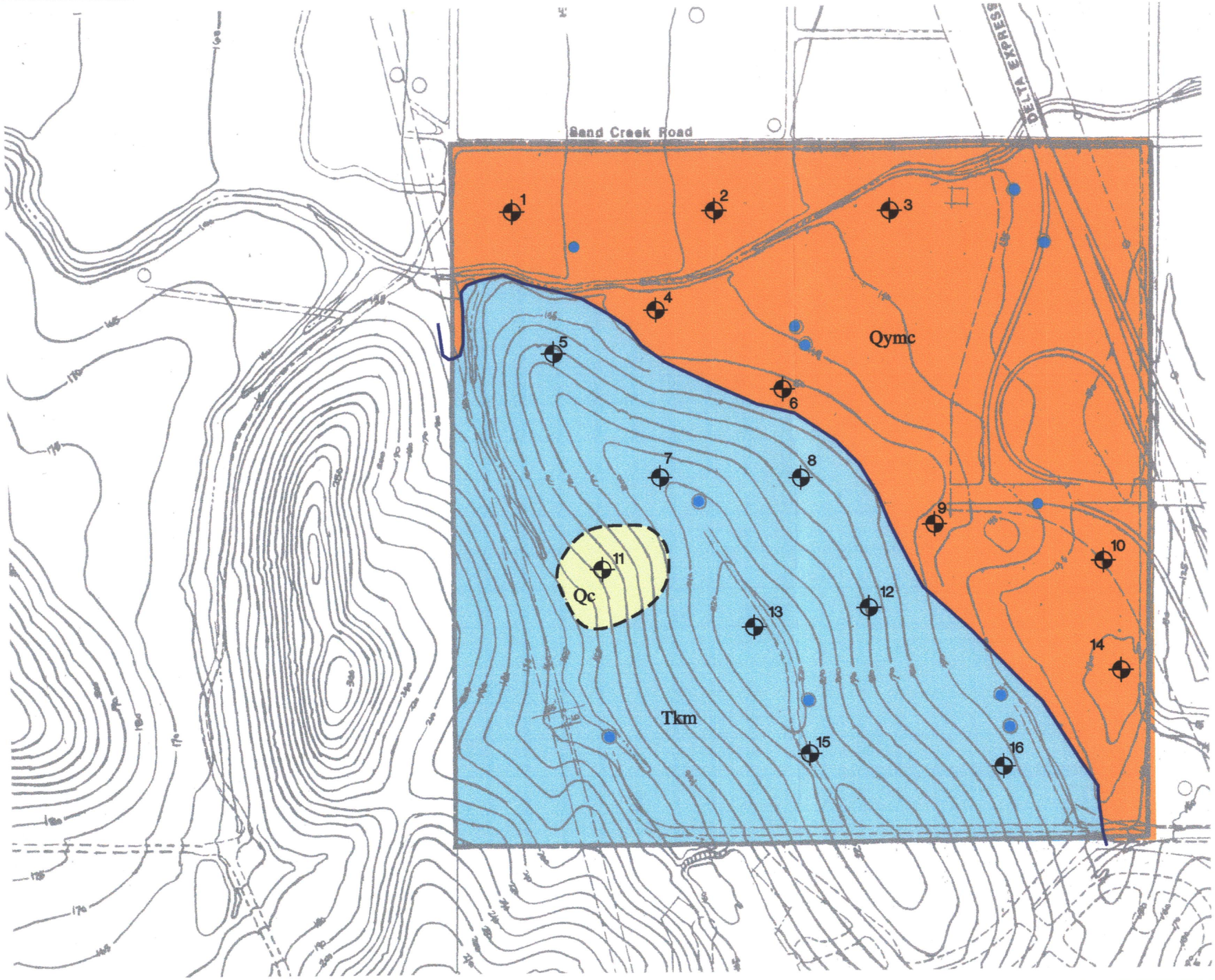
SOURCE: WEBER-BAND, 1998

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REGIONAL GEOLOGIC MAP
ELLISONDO PARCEL
BRENTWOOD, CALIFORNIA

PROJECT NO.: 3359.2.050.01
DATE: FEBRUARY 1999
DRAWN BY: LB CHECKED BY: DC
FIGURE NO. 4

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EXPLANATION

16 ⊕ BORING LOCATION

● OIL OR GAS WELL LOCATION

Qymc YOUNGER ALLUVIUM FROM SAND CREEK; SANDY TO SILTY CLAY, CLAYEY SAND; MEDIUM STIFF TO VERY STIFF AND MEDIUM DENSE TO DENSE.

Qc COLLUVIUM; SANDY TO SILTY CLAY SUSCEPTIBLE TO DOWNSLOPE MOVEMENT

Tkm MARKLEY FORMATION BEDROCK; MICACEOUS, ARKOSIC SANDSTONE, MINOR SILTSTONE OR SHALE, GYPSUM DEPOSITS COMMON.

0 FEET 400
0 METERS 200

N

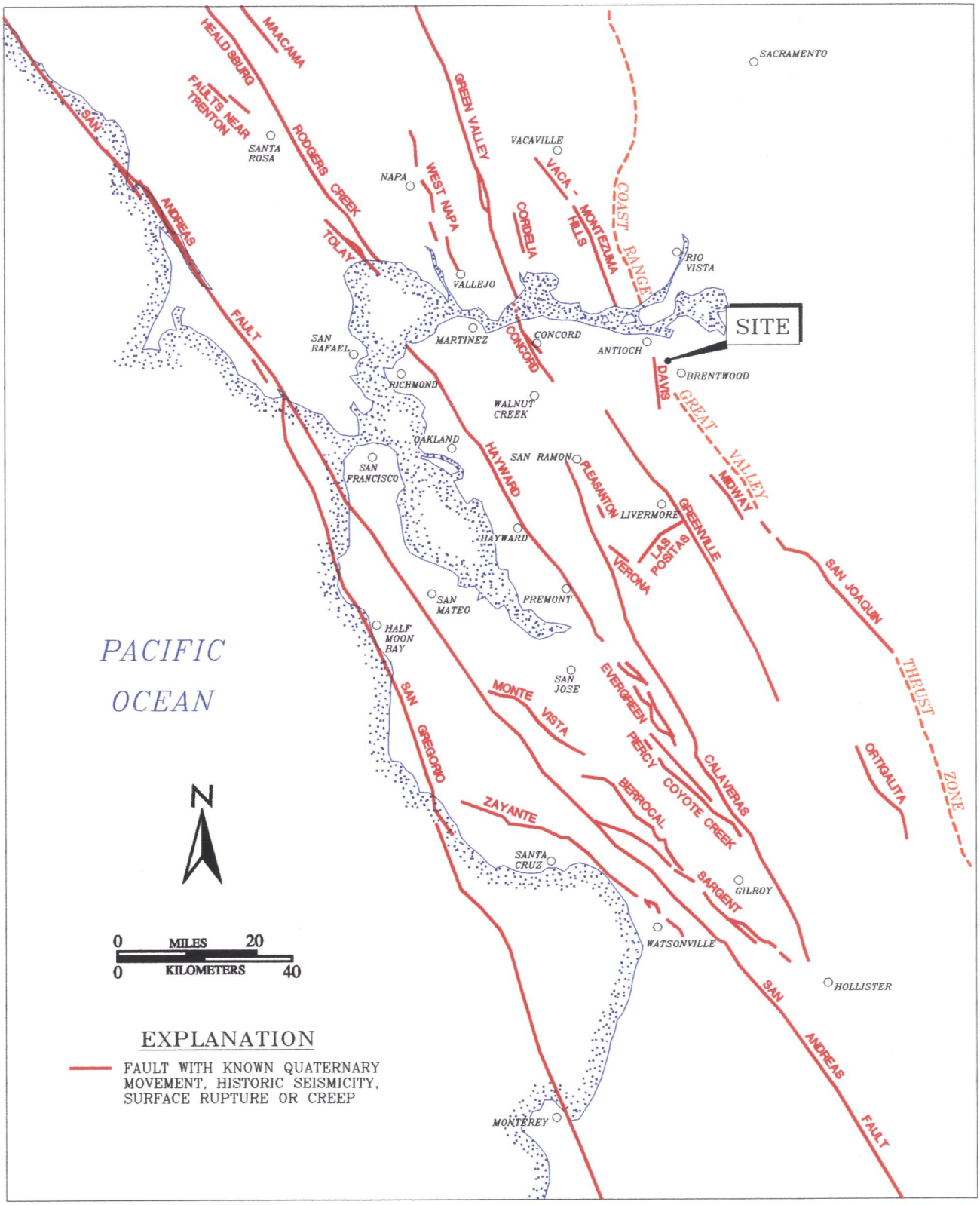
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SITE GEOLOGIC MAP WITH BOREHOLE LOCATIONS
ELLISONDO PARCEL
BRENTWOOD, CALIFORNIA

PROJECT NO.: 3359.2.050.01
DATE: FEBRUARY 1999
DRAWN BY: LB CHECKED BY: JB

FIGURE NO. 5

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REGIONAL FAULTING
ELLISONDO PARCEL
BRENTWOOD, CALIFORNIA

PROJECT NO.: 3359.2.050.01	FIGURE NO. 6
DATE: FEBRUARY 1999	
DRAWN BY: LB	CHECKED BY: TV

DATE OF BORING: May 13, 1999

SURFACE ELEVATION: Approx. 152.0 feet (46.3 meters)

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DESCRIPTION	BLOWS/FT	qu UNCON. COMP. STRENGTH (TSF) *FIELD PENET. APPROX.	IN PLACE DRY UNIT WEIGHT (PCF)	IN PLACE MOIST. CONTENT % DRY WEIGHT
0				SANDY CLAY, dark brown, stiff to very stiff, trace organics. (CL)				
	1	1-1-1			51/6"	+5*	114.1	12.4
5								
	2	1-2-1		SANDY CLAY with trace rock fragments, dark brown, very stiff, trace quartz, rock fragments and silicate minerals. (CL)	56/4"	+5*	118.5	13.1
10	3			SANDY CLAY, light brown, moist, medium stiff, trace quartz and rock fragments. (CL)				
		1-3-1			44	+5*	109.7	17.2
	4							
15				SILTY SAND, yellow brown, moist, medium dense. (SC)				
	5	1-4-1			22		101.0	9.7
				SILTY CLAY with trace sand, yellow brown, moist, stiff. (CL)				
20	6							
		1-5-1		SANDY CLAY, yellow brown, moist, stiff. (CL)	54		111.0	17.3
				Bottom of boring at approximately 21.5 feet. No ground water encountered during drilling.				
	7							
25								
	8							
30	9							

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ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

BORING NO.: 1

DATE: September 1999

PROJ. NO.: 3359.2.050.01

CHECKED BY

FIGURE NO. 7

SHEET 3359 GPJ 9/16/99

DATE OF BORING: May 13, 1999

SURFACE ELEVATION: Approx. 143.0 feet (43.6 meters)

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DESCRIPTION	BLOWS/FT	qu UNCON. COMP. STRENGTH (TSF) *FIELD PENET. APPROX.	IN PLACE DRY UNIT WEIGHT (PCF)	IN PLACE MOIST. CONTENT % DRY WEIGHT
0				SANDY CLAY, dark brown, moist, stiff to very stiff. (CL)				
		2-1-1			44	+5*	116.7	14.7
	1			CLAYEY SAND, yellow brown, dry, dense. (SC)				
5								
		2-2-1			54		106.3	8.7
	2							
				SANDY CLAY, yellow brown, dry, stiff. (CL)				
10		2-3-1			62/6"		114.0	11.1
	3							
	4			CLAYEY SAND, yellow brown, moist, medium dense to dense. (SC-SM)				
15		2-4-1			50		115.5	10.5
	5	2-5-1			18			8.2
				Bottom of boring at approximately 17 feet. No ground water encountered during drilling.				
20	6							
	7							
25								
	8							
30	9							

ET 3359.GPJ 9/16/99

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ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

BORING NO.: 2

DATE: September 1999

PROJ. NO.: 3359.2.050.01

CHECKED BY

FIGURE NO. 8

DATE OF BORING: May 13, 1999

SURFACE ELEVATION: Approx. 138.0 feet (42.1 meters)

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DESCRIPTION	BLOWS/FT	qu UNCON. COMP. STRENGTH (TSF) *FIELD PENET. APPROX.	IN PLACE DRY UNIT WEIGHT (PCF)	IN PLACE MOIST. CONTENT % DRY WEIGHT
0				SANDY CLAY, dark brown, moist, stiff. (CL)				
		3-1-1			56	+5*	115.4	11.6
5	1							
		3-2-1			66	+5*	113.9	16.1
	2			SANDY CLAY, yellow brown, moist, medium stiff. (CL)				
10	3	3-3-1			31	3.5*	95.2	22.6
				CLAYEY SAND, yellow brown, moist, medium dense. (SC)				
	4							
15		3-4-1			31		113.0	16.0
	5			Bottom of boring at approximately 15.5 feet. No ground water encountered during drilling.				
20	6							
	7							
25								
	8							
30	9							

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ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

BORING NO.: 3

DATE: September 1999

PROJ. NO.: 3359.2.050.01 CHECKED BY

FIGURE NO. 9

ET 3359.GPJ 9/16/99

DATE OF BORING: May 13, 1999

SURFACE ELEVATION: Approx. 146.0 feet (44.5 meters)

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DESCRIPTION	BLOWS/FT	qu UNCON. COMP. STRENGTH (TSF) *FIELD PENET. APPROX.	IN PLACE DRY UNIT WEIGHT (PCF)	IN PLACE MOIST. CONTENT % DRY WEIGHT
0				SANDY CLAY, dark brown, moist, stiff to very stiff. (CL)				
		4-1-1			29	+5*	109.3	12.4
	1							
5				SILTY CLAY, dark yellowish brown, with fine sand, dry, dense, carbonates present to 9 feet.				
		4-2-1			37	+5*	103.6	12.5
	2							
				CLAYEY SAND, yellow brown, dry, dense, with quartz, feldspar, and rock fragments present. (SC)				
10		4-3-1			78		123.8	10.6
	3							
	4							
15		4-4-1			45		115.4	9.7
				Bottom of boring at approximately 15.5 feet. No ground water encountered during drilling.				
	5							
20	6							
	7							
25								
	8							
30	9							

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BRENTWOOD, CALIFORNIA

BORING NO.: 4

DATE: September 1999

PROJ. NO.: 3359.2.050.01

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FIGURE NO. 10

SHEET 3359 GPJ 9/16/99

DATE OF BORING: May 13, 1999

SURFACE ELEVATION: Approx. 180.0 feet (54.9 meters)

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DESCRIPTION	BLOWS/FT	qu UNCON. COMP. STRENGTH (TSF) *FIELD PENET. APPROX.	IN PLACE DRY UNIT WEIGHT (PCF)	IN PLACE MOIST. CONTENT % DRY WEIGHT
0				SANDY CLAY, dark brown, moist, stiff to very stiff. (CL)				
		5-1-1		SANDSTONE, mottled light brown and orange, highly weathered, weak.	28	+5*	101.2	10.7
	1							
5		5-2-1			54	+5*	106.7	17.4
	2							
10	3	5-3-1		SANDSTONE, lithic, feldspar alteration to CLAY, slightly darker that above.	36			25.9
				CLAYSTONE, dark brown, completely weathered, friable.				
	4							
15		5-4-1		SILTSTONE, lithic, mottled light brown, orange and gray, moderately weathered, moderately hard.	61/6"		107.0	20.8
	5							
20	6	5-5-1			50/5.5"			26.5
				Bottom of boring at approximately 20 feet. No ground water encountered during drilling.				
	7							
25								
	8							
30	9							

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ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

BORING NO.: 5

DATE: September 1999

PROJ. NO.: 3359.2.050.01 CHECKED BY

FIGURE NO. 11

ET 3359.GPJ 9/16/99

DATE OF BORING: May 13, 1999

SURFACE ELEVATION: Approx. 150.0 feet (45.7 meters)

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DESCRIPTION	BLOWS/FT	qu UNCON. COMP. STRENGTH (TSF) *FIELD PENET. APPROX.	IN PLACE DRY UNIT WEIGHT (PCF)	IN PLACE MOIST. CONTENT % DRY WEIGHT
0				SANDY CLAY, dark brown, moist, stiff to very stiff, with roots. (CL)				
		6-1-1			26	+5*	89.9	22.6
	1			Dry hard.				
5		6-2-1			70		98.2	17.7
	2							
				SANDY CLAY, light brown, moist, stiff to very stiff. (CL)				
10	3	6-3-1			43	3.5*	99.6	13.1
				CLAYEY fine SANDSTONE, mottled orange brown and gray, dry moderately weathered, weak with oxide staining, with carbon and twig impressions.				
	4							
		6-4-1			50/3"		107.4	19.2
15								
	5							
				SANDY CLAYSTONE, light brown, moist, stiff to very stiff.				
	6			With gypsum.				
20		6-5-1			40			23.1
				Bottom of boring at approximately 20 feet. No ground water encountered during drilling.				
	7							
25								
	8							
30	9							

MET 3359 GPJ 9/16/99

ENGEO INCORPORATED

ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

BORING NO.: 6

DATE: September 1999

PROJ. NO.: 3359.2.050.01

CHECKED BY

FIGURE NO. 12

DATE OF BORING: May 13, 1999

SURFACE ELEVATION: Approx. 210.0 feet (64.0 meters)

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DESCRIPTION	BLOWS/FT	qu UNCON. COMP. STRENGTH (TSF) *FIELD PENET. APPROX.	IN PLACE DRY UNIT WEIGHT (PCF)	IN PLACE MOIST. CONTENT % DRY WEIGHT
0				SANDY CLAY, dark brown, moist, stiff to very stiff. (CL)				
		7-1-1			39	+5*	102.9	19.5
	1							
5		7-2-1		SANDSTONE, mottled light brown and orange, highly weathered, friable to moderately hard.	60/6"		92.8	20.0
	2							
				SANDSTONE, yellow and brown, lithic, moderately weathered, weak.				
10	3	7-3-1			34	3.0*		19.7
	4							
				Interbed of CLAYSTONE				
15		7-4-1		SANDSTONE, lithic, mottled light brown and gray, moderately weathered.	50/5"		113.9	14.5
	5							
				Interbed of CLAYSTONE.				
20	6	7-5-1			37			24.9
	7							
				SANDSTONE, lithic, mottled orange and gray, highly weathered, friable, quartz and feldspar, well sorted.				
25		7-6-1			34			18.0
	8							
	9							
30		7-7-1			40			21.4
				Bottom of boring at approximately 30 feet. No ground water encountered during drilling.				

ENGEO INCORPORATED

ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

BORING NO.: 7

DATE: September 1999

PROJ. NO.: 3359.2.050.01

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FIGURE NO. 13

3359 GPJ 9/16/99

DATE OF BORING: May 13, 1999

SURFACE ELEVATION: Approx. 180.0 feet (54.9 meters)

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DESCRIPTION	BLOWS/FT	qu UNCON. COMP. STRENGTH (TSF) *FIELD PENET. APPROX.	IN PLACE DRY UNIT WEIGHT (PCF)	IN PLACE MOIST. CONTENT % DRY WEIGHT
0				SANDY CLAY, dark brown, moist, stiff to very stiff. (CL)				
		8-1-1		CLAYSTONE, mottled gray and orange, highly weathered, weak to friable.	41	+5*	98.7	27.9
	1							
5		8-2-1			21			25.6
	2							
		8-3-1		Mottled gray and yellow.	50/3"		94.1	27.8
10	3							
				SANDSTONE, lithic, mottled gray and reddish orange, highly weathered, weak to friable.				
	4							
		8-4-1			30			23.8
15				Bottom of boring at approximately 15 feet. No ground water encountered during drilling.				
	5							
20	6							
	7							
25								
	8							
30	9							

ENGEO INCORPORATED

ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

BORING NO.: 8

DATE: September 1999

PROJ. NO.: 3359.2.050.01

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FIGURE NO. 14

3359 GPJ 9/16/99

DATE OF BORING: May 13, 1999

SURFACE ELEVATION: Approx. 145.0 feet (44.2 meters)

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DESCRIPTION	BLOWS/FT	qu UNCON. COMP. STRENGTH (TSF) *FIELD PENET. APPROX.	IN PLACE DRY UNIT WEIGHT (PCF)	IN PLACE MOIST. CONTENT % DRY WEIGHT
0				SANDY CLAY, dark brown, moist, stiff to very stiff, trace organics and rootlets. (CL)				
		9-1-1			41	+5	76.0	18.1
	1							
5		9-2-1		Color change to mottled light brown and dark brown.	65	+5*	104.2	19.7
	2							
				CLAYSTONE, mottled gray and orange, highly weathered, weak, with trace gypsum veins.				
10	3	9-3-1			76		90.3	30.6
	4							
		9-4-1			60/2"	4.0	94.2	28.0
15	5							
	6	9-5-1			36			38.7
20				Bottom of boring at approximately 20 feet. No ground water encountered during drilling.				
	7							
25								
	8							
	9							
30								

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ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

BORING NO.: 9

DATE: September 1999

PROJ. NO.: 3359.2.050.01

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FIGURE NO. 15

3359.GPJ 9/16/99

DATE OF BORING: May 13, 1999

SURFACE ELEVATION: Approx. 133.0 feet (40.5 meters)

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DESCRIPTION	BLOWS/FT	qu UNCON. COMP. STRENGTH (TSF) *FIELD PENET. APPROX.	IN PLACE DRY UNIT WEIGHT (PCF)	IN PLACE MOIST. CONTENT % DRY WEIGHT
0				SANDY CLAY, dark brown, moist, stiff to very stiff. (CL)				
		10-1-1			30	+5*		21.2
	1							
5		10-2-1		With trace calcium carbonate.	51		90.8	19.6
	2							
		10-3-1		SILTSTONE, gray, highly weathered, weak.	50/6"		86.2	23.4
10	3							
	4			Color changes to mottled red and gray with some clay partings.	25			24.1
15				Bottom of boring at approximately 15 feet. No ground water encountered during drilling.				
	5							
20	6							
	7							
25	8							
	9							
30								

ENGEO INCORPORATED

ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

BORING NO.: 10

DATE: September 1999

PROJ. NO.: 3359.2.050.01

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FIGURE NO. 16

3359.GPJ 9/16/99

DATE OF BORING: May 13, 1999

SURFACE ELEVATION: Approx. 170.0 feet (51.8 meters)

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DESCRIPTION	BLOWS/FT	qu UNCON. COMP. STRENGTH (TSF) *FIELD PENET. APPROX.	IN PLACE DRY UNIT WEIGHT (PCF)	IN PLACE MOIST. CONTENT % DRY WEIGHT
0				SANDY CLAY, dark brown, moist, stiff to very stiff. (CL)				
		11-1-1			54	+5*	110.6	12.4
	1							
5		11-2-1		White rootlets present	56	+5*	102.6	13.2
	2							
		11-3-1			37		105.9	13.4
10	3			SANDSTONE, lithic, mottled brown, white, and orange, highly weathered, weak with flaser bedding.				
				SANDSTONE, lithic, mottled brown, white and orange, highly weathered, weak, with gypsum.				
	4							
				Gypsum interval.				
15		11-4-1			32			23.3
				Bottom of boring at approximately 15 feet. No ground water encountered during drilling.				
	5							
20	6							
	7							
25	8							
30	9							

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ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

BORING NO.: 11

DATE: September 1999

PROJ. NO.: 3359.2.050.01

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FIGURE NO. 17

3359.GPJ 9/16/99

DATE OF BORING: May 13, 1999

SURFACE ELEVATION: Approx. 180.0 feet (54.9 meters)

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DESCRIPTION	BLOWS/FT	qu UNCON. COMP. STRENGTH (TSF) *FIELD PENET. APPROX.	IN PLACE DRY UNIT WEIGHT (PCF)	IN PLACE MOIST. CONTENT % DRY WEIGHT
0				SANDY CLAY, brown, dry, medium stiff, with calcium carbonate present. (CL)				
		12-1-1			15	+5*		18.7
	1			CLAYSTONE, white, highly weathered, weak.				
5		12-2-1			63		72.0	15.5
	2							
		12-3-1		Color changes to mottled gray and tan with white calcium carbonate deposits.	31			31.5
10	3							
	4			SILTSTONE, mottled red, yellow, and gray, with gypsum and trace quartz sands.				
15		12-4-1			36			26.7
	5			Bottom of boring at approximately 15 feet. No ground water encountered during drilling.				
20	6							
	7							
25								
	8							
	9							
30								

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ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

BORING NO.: 12

DATE: September 1999

PROJ. NO.: 3359.2.050.01

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FIGURE NO. 18

3359.GPJ 9/16/99

DATE OF BORING: May 13, 1999

SURFACE ELEVATION: Approx. 220.0 feet (67.1 meters)

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DESCRIPTION	BLOWS/FT	qu UNCON. COMP. STRENGTH (TSF) *FIELD PENET. APPROX.	IN PLACE DRY UNIT WEIGHT (PCF)	IN PLACE MOIST. CONTENT % DRY WEIGHT
0				SANDY CLAY, dark brown, dry, stiff to very stiff. (CL)				
		13-1-1			22	+5*	93.7	9.7
	1			SANDSTONE, lithic, mottled gray and brown, highly weathered, weak.				
5		13-2-1			60		103.8	16.7
	2							
				SILTY SANDSTONE				
10	3	13-3-1		SANDSTONE, lithic, gray, highly weathered, friable.	43			22.1
	4							
				Color changes to mottled gray and orange.				
15		13-4-1			34			27.8
	5							
				Increasing fines.				
20	6	13-5-1			35			24.9
				Bottom of boring at approximately 20 feet. No ground water encountered during drilling.				
	7							
25								
	8							
	9							
30								

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ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

BORING NO.: 13

DATE: September 1999

PROJ. NO.: 3359.2.050.01

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FIGURE NO. 19

3359 GPJ 9/16/99

DATE OF BORING: May 13, 1999

SURFACE ELEVATION: Approx. 130.0 feet (39.6 meters)

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DESCRIPTION	BLOWS/FT	qu UNCON. COMP. STRENGTH (TSF) *FIELD PENET. APPROX.	IN PLACE DRY UNIT WEIGHT (PCF)	IN PLACE MOIST. CONTENT % DRY WEIGHT
0				SANDY CLAY, dark brown, with trace organics, moist, stiff to very stiff. (CL)				
		14-1-1			41	8.2	106.2	15.1
	1							
5		14-2-1			54	+5*	111.9	15.1
	2							
		14-3-1			52/6"	+5*	112.0	17.2
10	3							
	4							
		14-4-1		SANDSTONE, lithic, mottled gray and yellow, highly weathered, friable, with quartz, feldspar, and gypsum.	68		99.1	25.6
15				Bottom of boring at approximately 15 feet. No ground water encountered during drilling.				
	5							
20	6							
	7							
25								
	8							
	9							
30								

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ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

BORING NO.: 14

DATE: September 1999

PROJ. NO.: 3359.2.050.01

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FIGURE NO. 20

3359.GPJ 9/16/99

DATE OF BORING: May 13, 1999

SURFACE ELEVATION: Approx. 215.0 feet (65.5 meters)

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DESCRIPTION	BLOWS/FT	qu UNCON. COMP. STRENGTH (TSF) *FIELD PENET. APPROX.	IN PLACE DRY UNIT WEIGHT (PCF)	IN PLACE MOIST. CONTENT % DRY WEIGHT
0				SANDY CLAY, brown, moist, stiff to very stiff, with some orange sandy clasts. (CL)				
		15-1-1			38	+5*	112.7	15.0
	1			SANDSTONE, gray, completely weathered, friable.				
5		15-2-1		SANDSTONE, fine grained, yellow brown, completely weathered, weak.	40		98.1	21.3
	2							
				SANDSTONE, lithic, dark red brown, highly weathered, friable, with white gypsum and iron oxide.				
10	3	15-3-1			35			26.2
	4			SANDSTONE, lithic, mottled gray, orange, and brown, highly weathered, weak, with gypsum veins.				
15		15-4-1			41			22.6
	5			Bottom of boring at approximately 15.5 feet. No ground water encountered during drilling.				
20	6							
	7							
25								
	8							
30	9							

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ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

BORING NO.: 15

DATE: September 1999

PROJ. NO.: 3359.2.050.01

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FIGURE NO. 21

3359 GPJ 9/16/99

DATE OF BORING: May 13, 1999

SURFACE ELEVATION: Approx. 150.0 feet (45.7 meters)

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DESCRIPTION	BLOWS/FT	qu UNCON. COMP. STRENGTH (TSF) *FIELD PENET. APPROX.	IN PLACE DRY UNIT WEIGHT (PCF)	IN PLACE MOIST. CONTENT % DRY WEIGHT
0				SANDY CLAY, dark brown, moist, stiff to very stiff, with white rootlets. (CL)				
		16-1-1			18	+5*		17.7
	1							
5		16-2-1		SANDSTONE, mottled gray and yellow, highly weathered, weak.	50/2"		87.4	24.7
	2			Interbedded SANDSTONE and CLAYSTONE, mottled gray and yellow, highly weathered, friable, thin (1 inch thick) sandstone beds seperated by 1 inch to 3 inch thick claystone beds.				
10	3			SANDSTONE, reddish brown, completely weathered, friable, with iron oxide staining.				
		16-3-1		CLAYSTONE, mottled yellow and gray, highly weathered, friable.	14			28.2
	4			SANDSTONE/CLAYSTONE, mottled red and yellow with gray claystone, highly weathered, weak.				
15		16-4-1			34			28.3
	5			Bottom of boring at approximately 15.5 feet. No ground water encountered during drilling.				
20	6							
	7							
25								
	8							
30	9							

ENGEO INCORPORATED

ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

BORING NO.: 16

DATE: September 1999

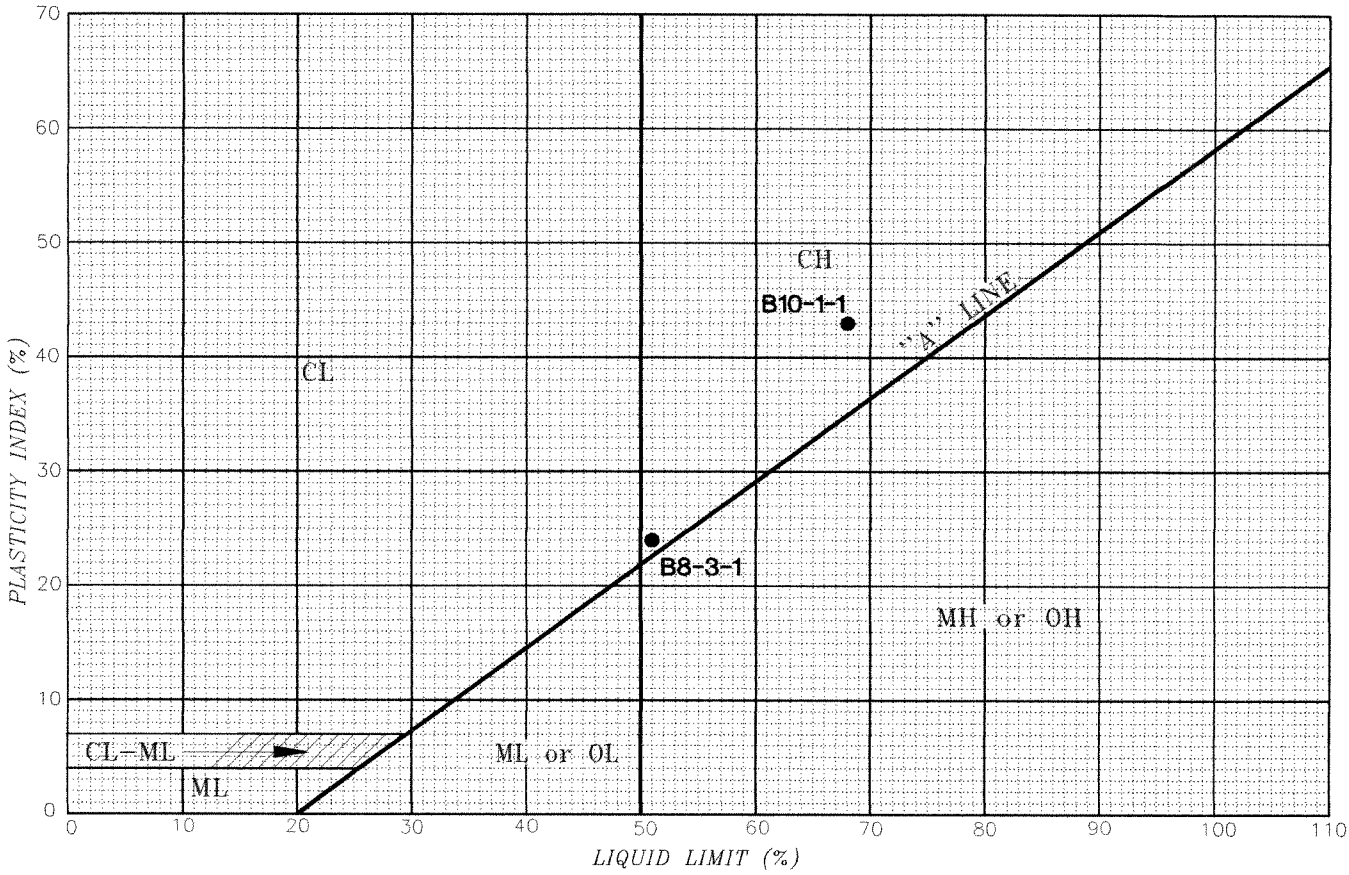
PROJ. NO.: 3359.2.050.01

CHECKED BY

FIGURE NO. 22

3359.GPJ 9/16/99

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NO.	SAMPLE DEPTH IN FEET (METERS)	NATURAL WATER CONTENT (%)	ATTERBERG LIMITS			PERCENT PASSING NO. 200 SIEVE	UNIFIED SOIL CLASSIFICATION SYMBOL
			LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)		
B8-3-1	9.0 (2.7)	27.8	51	27	24	–	CH-CL
B10-1-1	2.0 (0.6)	21.2	68	25	43	–	CH

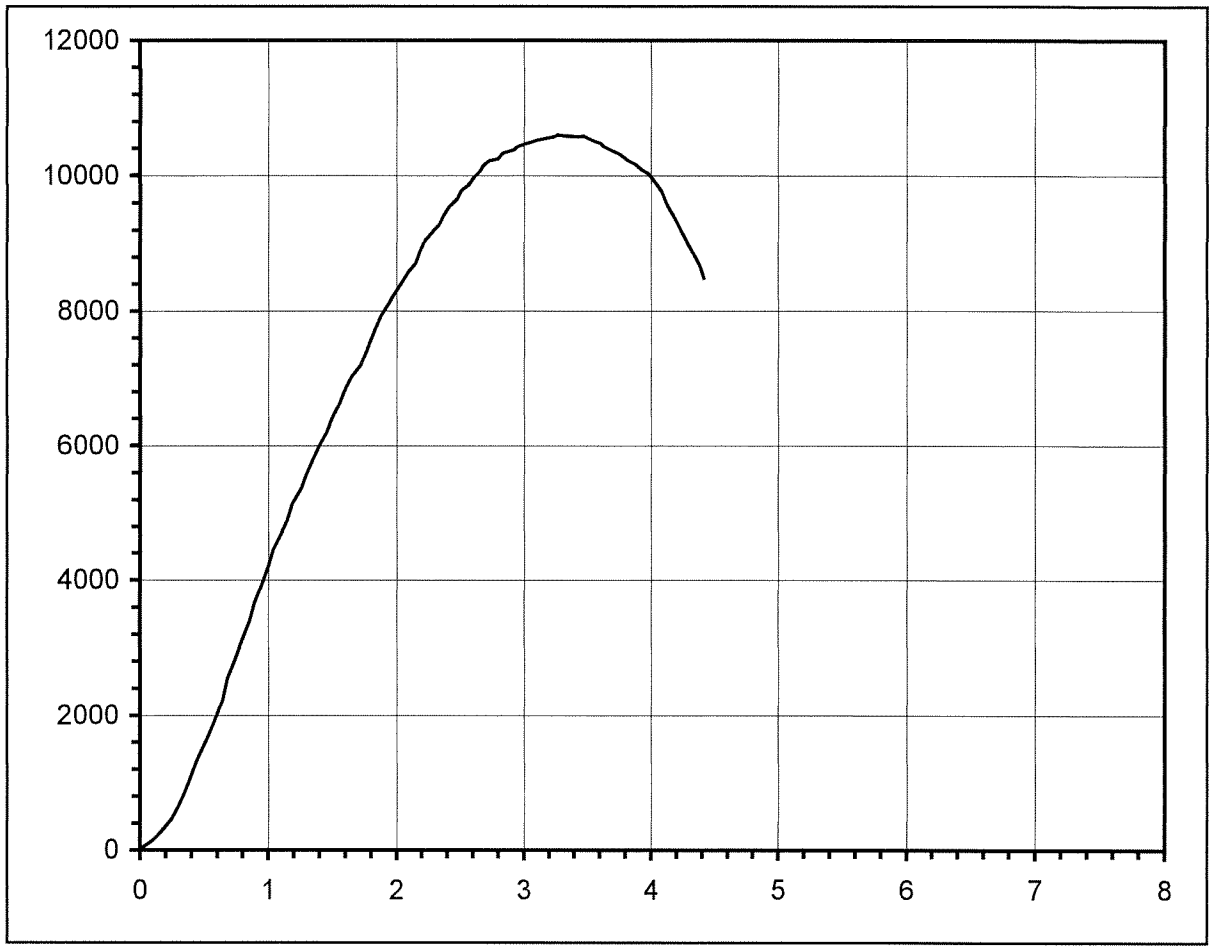
ENGEO INCORPORATED

PLASTICITY CHART
ELLISONDO PARCEL
BRENTWOOD, CALIFORNIA

PROJECT NO.: 3359.2.050.01
DATE: JULY 1999
DRAWN BY: M.V.S. CHECKED BY: DC

FIGURE NO. 23

Unconfined Compression Test
ASTM Test Method D2166



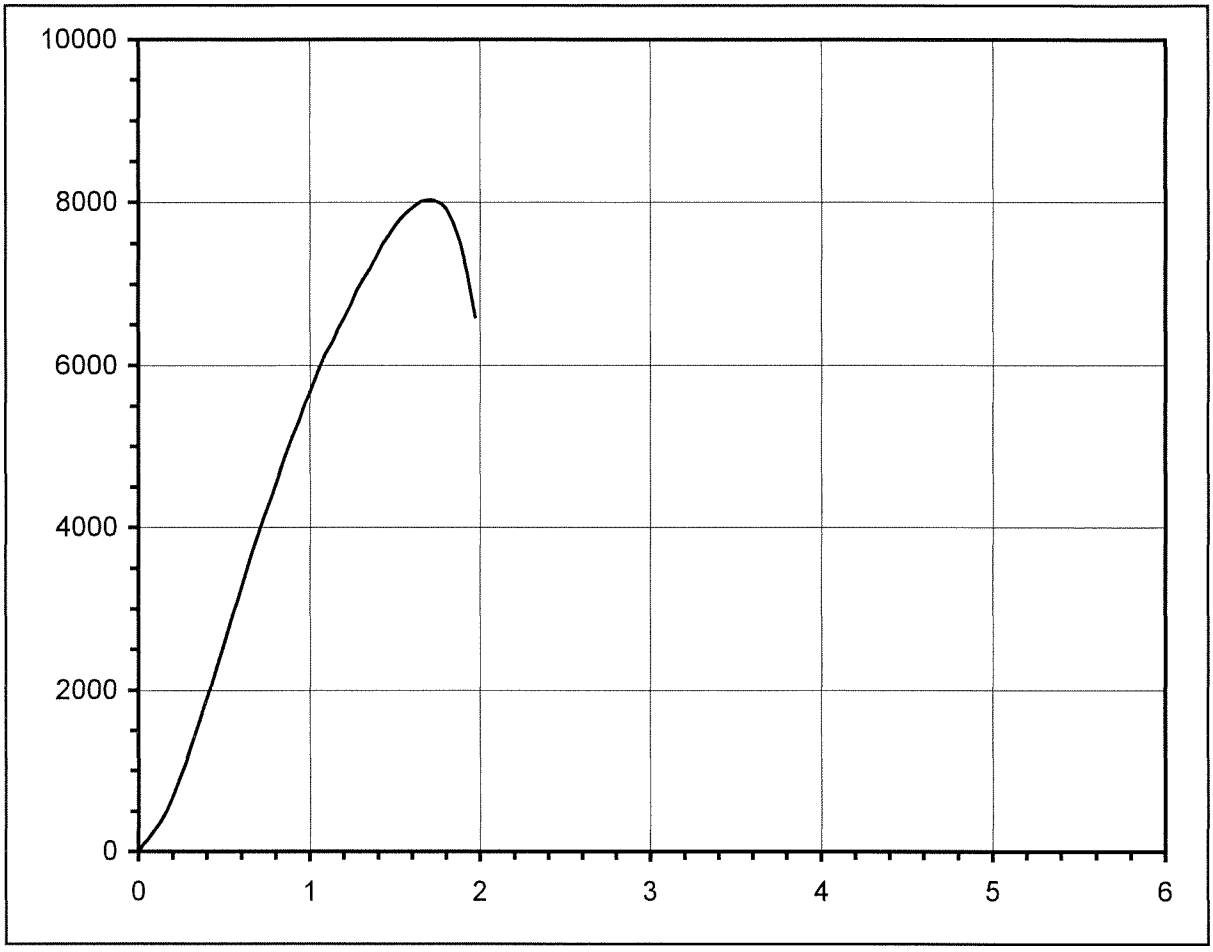
Unconfined Compressive Strength: **10610 psf** **5.3 tsf**

Sample Description: Dark yellowish brown silty Clay with fine sand

Initial Diameter:	2.375	in.	Sample Number:	2-1	
Initial Height:	4.23	in.	Boring Number:	4	
Strain Rate:	1.425	%/min	Dry Unit Weight:	103.6	pcf
Total Strain:	4.42	%	Moisture Content:	12.5	%
			Depth of Sample:		ft.

ENGEO INCORPORATED	ELLISONDO Brentwood, California	Job No.: 3359205001 Sample Number: 4-2-1 Date: 6/21/99	Figure No. 24

Unconfined Compression Test
ASTM Test Method D2166



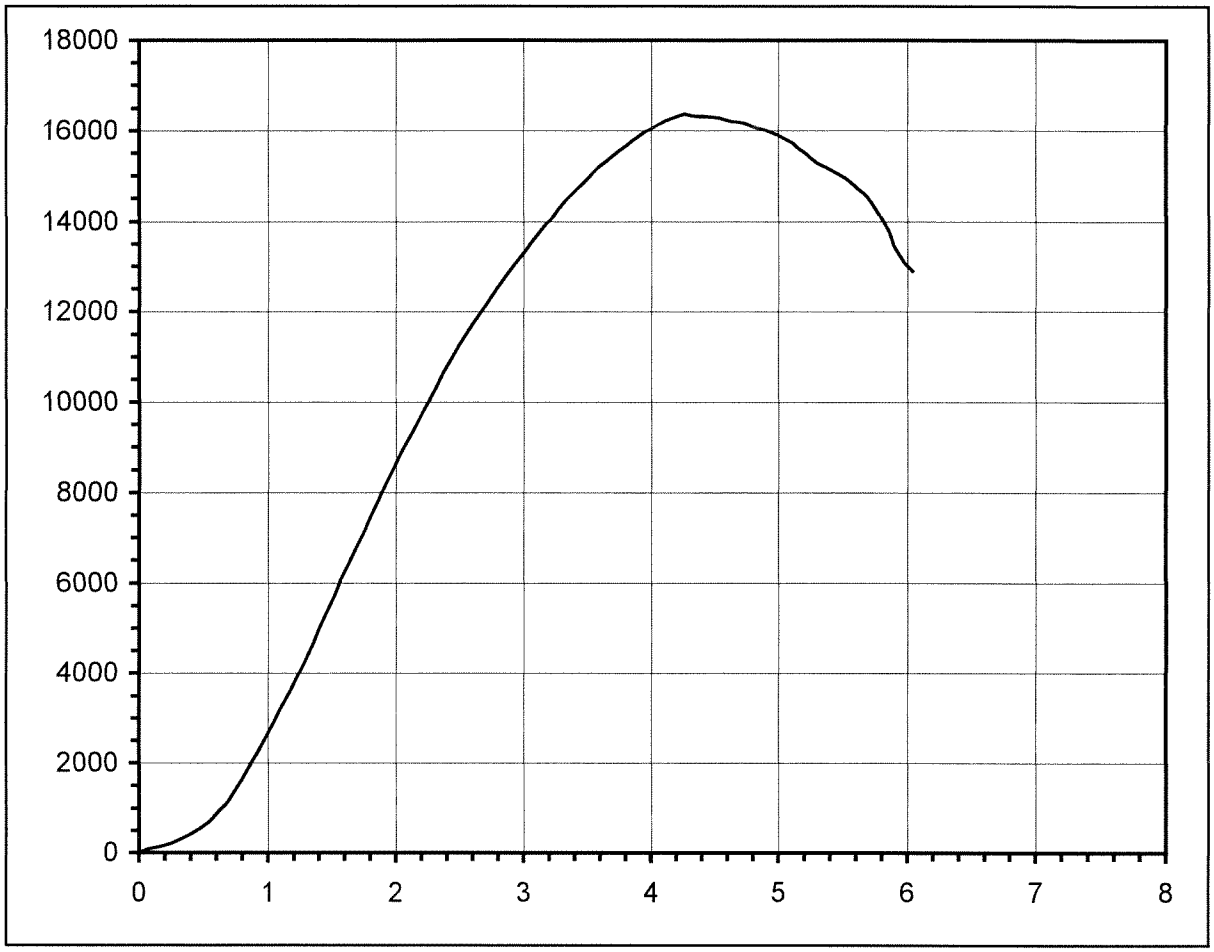
Unconfined Compressive Strength: 8020 psf 4.0 tsf

Sample Description: Yellowish brown weathered silty Claystone

Initial Diameter:	2.375	in.	Sample Number:	4-1	
Initial Height:	5.65	in.	Boring Number:	9	
Strain Rate:	1.137	%/min	Dry Unit Weight:	94.2	pcf
Total Strain:	1.97	%	Moisture Content:	28.0	%
			Depth of Sample:		ft.

ENGEO INCORPORATED	ELLISONDO Brentwood, California	Job No.: 3359205001 Sample Number: 9-4-1 Date: 6/21/99	Figure No. 25

Unconfined Compression Test
ASTM Test Method D2166



Unconfined Compressive Strength: 16360 psf 8.2 tsf

Sample Description: Very dark grayish brown Clay

Initial Diameter:	2.375	in.	Sample Number:	1-1	
Initial Height:	3.63	in.	Boring Number:	14	
Strain Rate:	1.677	%/min	Dry Unit Weight:	106.2	pcf
Total Strain:	6.04	%	Moisture Content:	15.1	%
			Depth of Sample:		ft.

ENGEO INCORPORATED	ELLISONDO Brentwood, California	Job No.: 3359205001 Sample Number: 14-1-1 Date: 6/21/99	Figure No. 26

ENGEO INC.

ASTM SWELL POTENTIAL

D4546 METHOD "B"

File Number:	**3359.2.050.01**	**Date:**	**06/21/99**
File Name:	**ELLISONDO**	**Sample Number:**	**Bulk #1 90% Comp. at 3 Over**
Sample Description:	**Dark grayish brown silty Clay with sand**		

Initial Sample Ht.:	1.00	in.	Sample Diameter:	2.375	in.
Pre-test sample wt:	139.8	g	Sp.Gravity (est.):		
Tare Weight:	8.0	g			
Gross Wet Wt (g):	155.1	g	Net Wet Sample Wt.:	147.1	g
Gross Dry Wt. (g):	129.6	g	Net Dry Sample Wt.:	121.6	g

	** PRE-TEST CONDITIONS **	** POST-TEST CONDITIONS **
Moisture content:	**15.0%**	**21.0%**
Dry Density:	**104.6 pcf**	**103.4 pcf**

Initial LVDT Reading: 0.4000

COMPRESSION DATA

Load :	0.3489	kg
Surcharge Pressure:	500	psf
Initial LVDT Reading:	0.4000	
Final LVDT Reading:	0.3969	
Displacement:	-0.31%	(Net Compression)

SWELL DATA

Load :	0.3489	kg
Surcharge Pressure:	500	psf
Initial LVDT Reading:	0.3969	
Final LVDT Reading:	0.4112	
Displacement:	1.43%	(Net Swell)

TOTAL DISPLACEMENT: 1.12%

FIGURE 27

ENGEO INC.

ASTM SWELL POTENTIAL

D4546 METHOD "B"

File Number:	**3359.2.050.01**	**Date:**	**06/21/99**
File Name:	**ELLISONDO**	**Sample Number:**	**Bulk #1 90% Comp. at 3 Over**
Sample Description:	**Dark grayish brown silty Clay with sand**		

Initial Sample Ht.:	1.00	in.	Sample Diameter:	2.375	in.
Pre-test sample wt:	140.6	g	Sp.Gravity (est.):		
Tare Weight:	8.2	g			
Gross Wet Wt (g):	155.5	g	Net Wet Sample Wt.:	147.3	g
Gross Dry Wt. (g):	130.3	g	Net Dry Sample Wt.:	122.1	g

** PRE-TEST CONDITIONS **		** POST-TEST CONDITIONS **
Moisture content:	**15.2%**	**20.6%**
Dry Density:	**105.0 pcf**	**105.2 pcf**

Initial LVDT Reading: 0.4000

COMPRESSION DATA

Load :	1.0466	kg
Surcharge Pressure:	1500	psf
Initial LVDT Reading:	0.4000	
Final LVDT Reading:	0.3930	
Displacement:	-0.70%	(Net Compression)

SWELL DATA

Load :	1.0466	kg
Surcharge Pressure:	1500	psf
Initial LVDT Reading:	0.3930	
Final LVDT Reading:	0.3983	
Displacement:	0.53%	(Net Swell)

TOTAL DISPLACEMENT: -0.17%

FIGURE 28

ENGEO INC.

ASTM SWELL POTENTIAL

D4546 METHOD "B"

File Number: 3359.2.050.01 **Date:** 06/21/99
File Name: ELLISONDO **Sample Number:** Bulk #2
90% Comp. at 3 Over

Sample Description: Yellowish brown silty Clay with sand

Initial Sample Ht.:	1.00	in.	Sample Diameter:	2.375	in.
Pre-test sample wt:	140.4	g	Sp.Gravity (est.):		
Tare Weight:	8.3	g			
Gross Wet Wt (g):	158.8	g	Net Wet Sample Wt.:	150.5	g
Gross Dry Wt. (g):	130.3	g	Net Dry Sample Wt.:	122.0	g

** PRE-TEST CONDITIONS **		** POST-TEST CONDITIONS **
Moisture content:	**15.1%**	**23.4%**
Dry Density:	**104.9 pcf**	**101.6 pcf**

Initial LVDT Reading: 0.4000

COMPRESSION DATA

Load :	0.3489	kg
Surcharge Pressure:	500	psf
Initial LVDT Reading:	0.4000	
Final LVDT Reading:	0.3983	
Displacement:	-0.17%	(Net Compression)

SWELL DATA

Load :	0.3489	kg
Surcharge Pressure:	500	psf
Initial LVDT Reading:	0.3983	
Final LVDT Reading:	0.4323	
Displacement:	3.40%	(Net Swell)

TOTAL DISPLACEMENT: 3.23%

FIGURE 29

ENGEO INC.

ASTM SWELL POTENTIAL

D4546 METHOD "B"

File Number:	3359.2.050.01	**Date:**	06/21/99
File Name:	ELLISONDO	**Sample Number:**	Bulk #2
			90% Comp. at 3 Over
Sample Description:	Yellowish brown silty Clay with sand		

Initial Sample Ht.:	1.00	in.	Sample Diameter:	2.375	in.
Pre-test sample wt:	140.4	g	Sp.Gravity (est.):		
Tare Weight:	8.3	g			
Gross Wet Wt (g):	157.5	g	Net Wet Sample Wt.:	149.2	g
Gross Dry Wt. (g):	129.1	g	Net Dry Sample Wt.:	120.8	g

	** PRE-TEST CONDITIONS **	** POST-TEST CONDITIONS **
Moisture content:	**16.2%**	**23.5%**
Dry Density:	**103.9 pcf**	**103.4 pcf**

Initial LVDT Reading: 0.4000

COMPRESSION DATA

Load :	1.0466	kg
Surcharge Pressure:	1500	psf
Initial LVDT Reading:	0.4000	
Final LVDT Reading:	0.3961	
Displacement:	-0.39%	(Net Compression)

SWELL DATA

Load :	1.0466	kg
Surcharge Pressure:	1500	psf
Initial LVDT Reading:	0.3961	
Final LVDT Reading:	0.4049	
Displacement:	0.88%	(Net Swell)

TOTAL DISPLACEMENT: 0.49%

FIGURE 30

COMPACTION CURVE

Project No.: 3359.2.050.01 Date: 05/28/99

Project: Ellisondo

Location: Brentwood,California

Elev/Depth:

Remarks:

Lab Number: 7445 Curve Data No: 1998+475 Run by: DY

MATERIAL DESCRIPTION

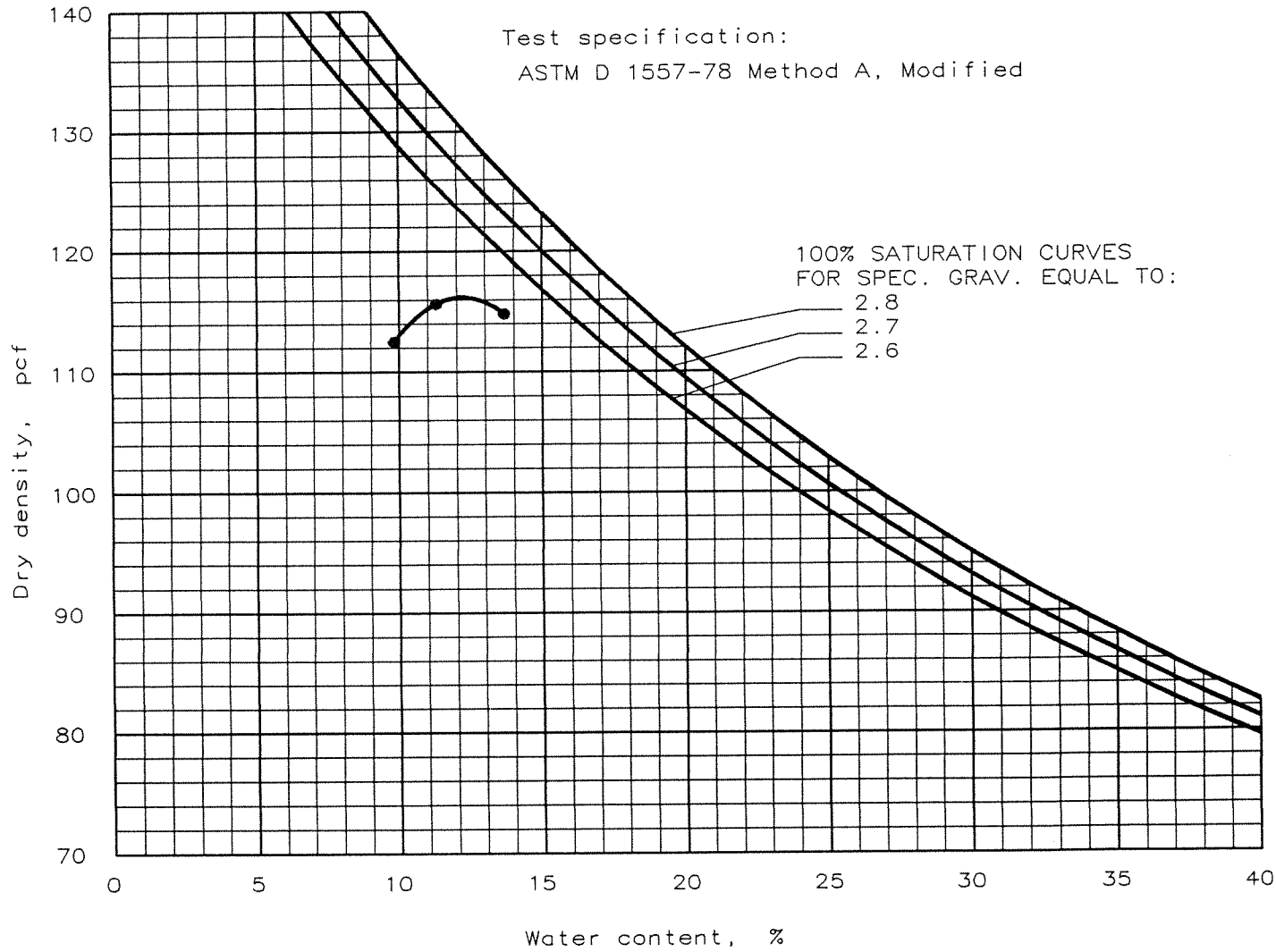
Description: Dark grayish brown silty clay w/ sand

Classifications: USCS: AASHTO:

Nat. Moist. = n/a% Sp.G. =

Liquid Limit = n/a Plasticity Index = n/a

TEST RESULTS
Maximum dry density = 116.2 pcf
Optimum moisture = 12.2 %



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FIGURE 31

COMPACTION CURVE

Project No.: 3359.2.050.01 Date: 05/28/99

Project: Ellisondo

Location: Brentwood,California

Bulk #2

Elev/Depth:

Remarks:

Lab Number: 7445 Curve Data No: 1998+476 Run by: DY

MATERIAL DESCRIPTION

Description: Yellowish brown silty clay w/ sand

Classifications: USCS: AASHTO:

Nat. Moist. = n/a% Sp.G. =

Liquid Limit = n/a Plasticity Index = n/a

TEST RESULTS
Maximum dry density = 114.5 pcf
Optimum moisture = 12.3 %

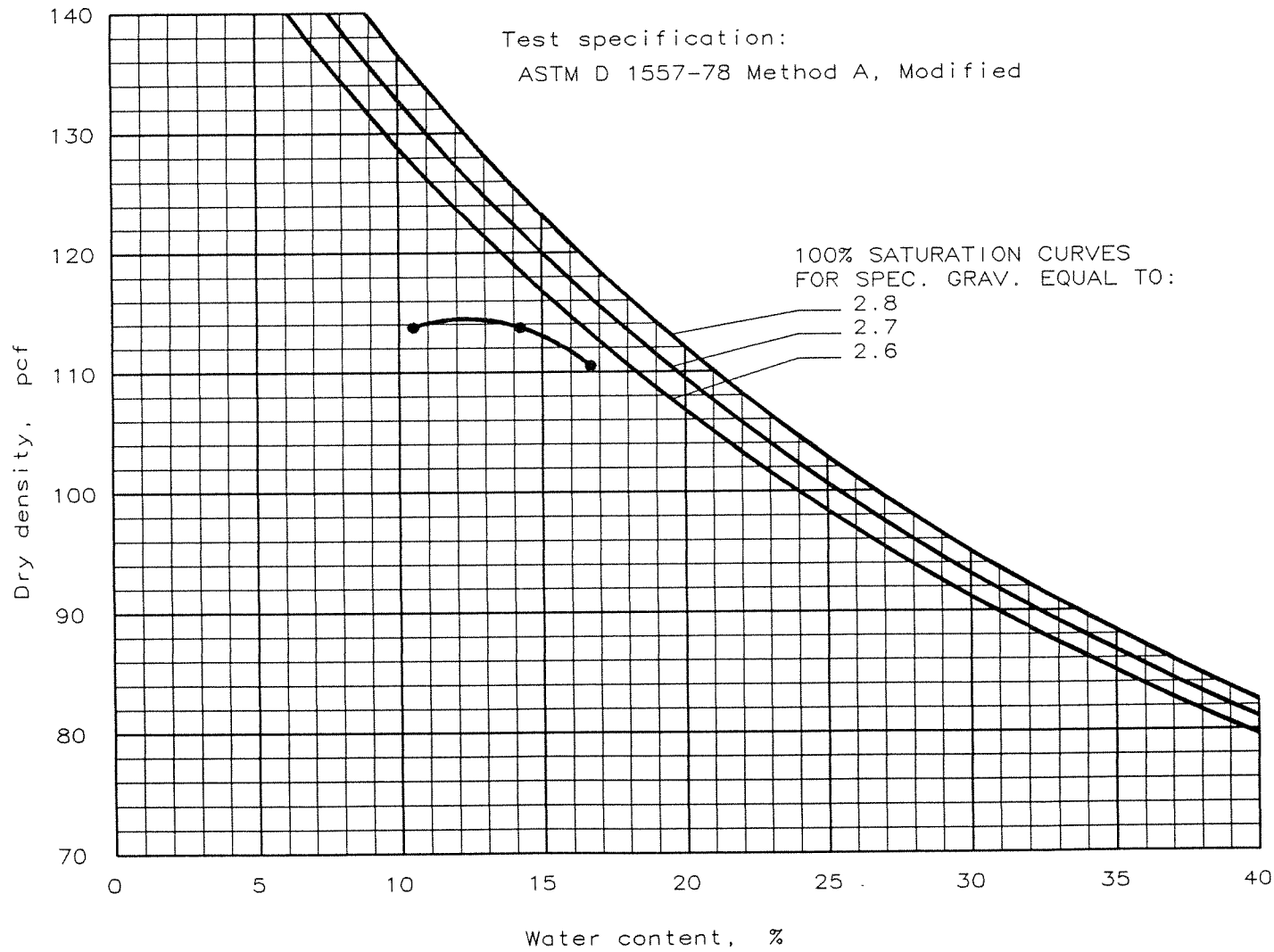
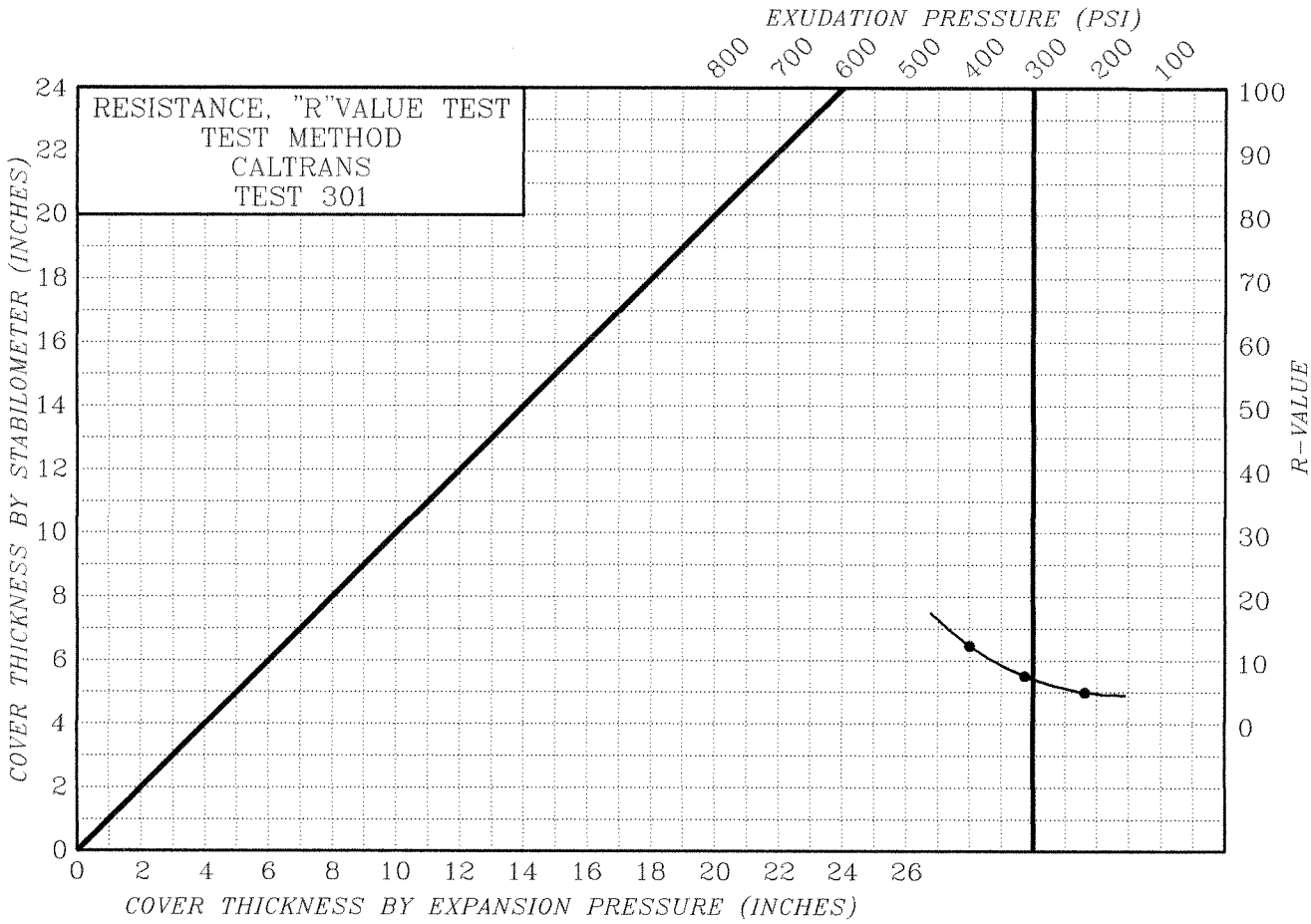


FIGURE 32

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SAMPLE: *1*

DESCRIPTION: *Dark brown SANDY CLAY*

SPECIMEN	EXUDATION PRESSURE (PSI)	EXPANSION DIAL (.0001")	EXPANSION PRESSURE (PSF)	PERCENT MOISTURE AT TEST	DRY DENSITY AT TEST (PCF)	RESISTANCE VALUE (R)
A	400	11	48	23.9	97.2	12
B	320	7	30	24.6	95.4	8
C	225	0	0	25.4	93.4	5

"R"VALUE AT 300 PSI EXUDATION PRESSURE	7

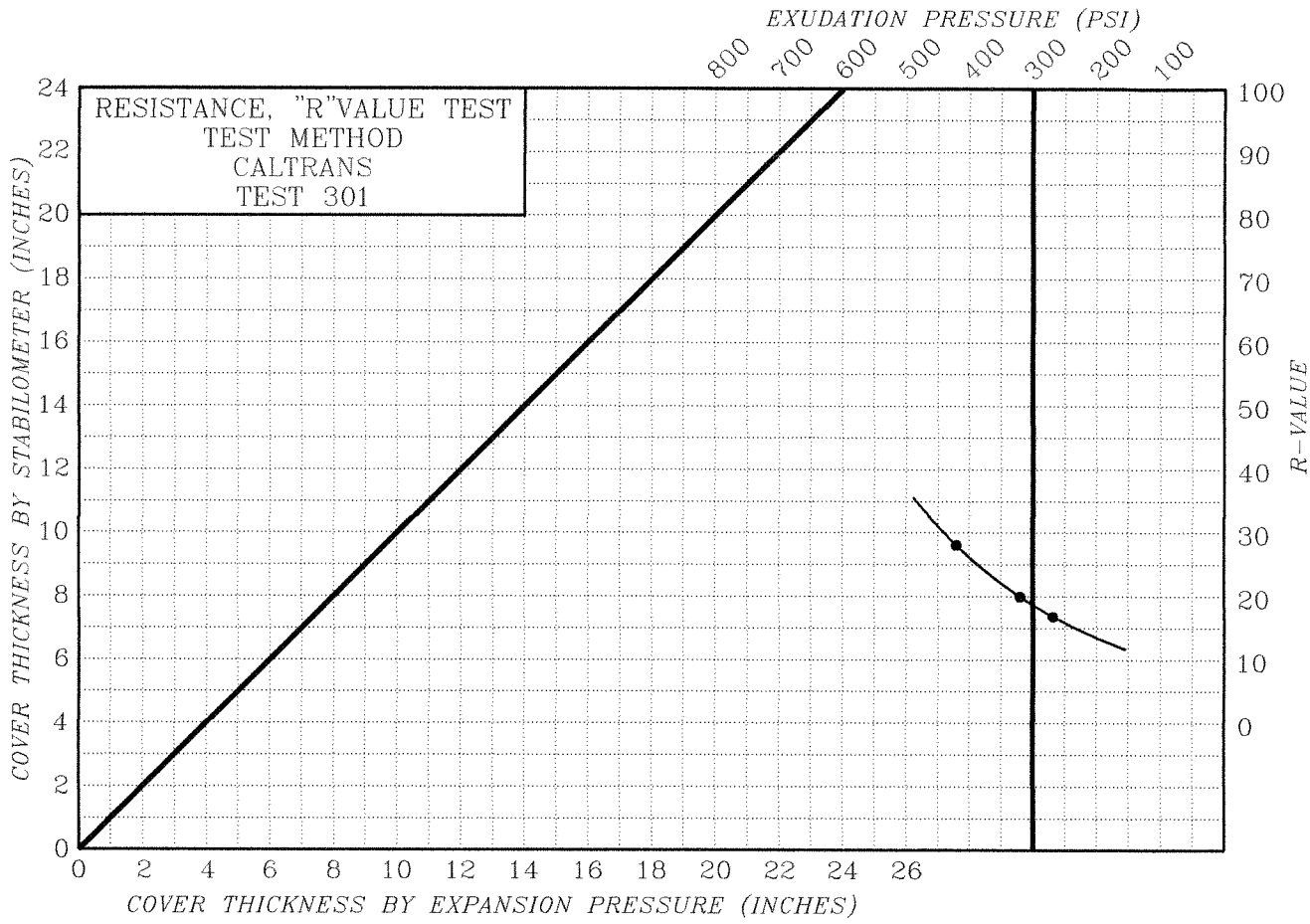
ENGEO INCORPORATED

R-VALUE TEST RESULTS
ELLISONDO PARCEL
BRENTWOOD,. CALIFORNIA

PROJECT NO.: 3359.2.050.01
DATE: JULY 1999
DRAWN BY: CHECKED BY: DC

FIGURE NO. 33

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SAMPLE: *2*

DESCRIPTION: *Yellowish-brown SANDY CLAY*

SPECIMEN	EXUDATION PRESSURE (PSI)	EXPANSION DIAL (.0001")	EXPANSION PRESSURE (PSF)	PERCENT MOISTURE AT TEST	DRY DENSITY AT TEST (PCF)	RESISTANCE VALUE (R)
A	–	–	–	–	–	–
B	–	23	100	21.4	103.6	–
C	–	–	–	–	–	–

"R"VALUE AT 300 PSI EXUDATION PRESSURE	<5

MATERIAL EXTRUDED FROM MOLD DURING EXUDATION TESTING. WHEN THIS OCCURS, THE R-VALUE IS TO BE REPORTED AT LESS THAN 5.

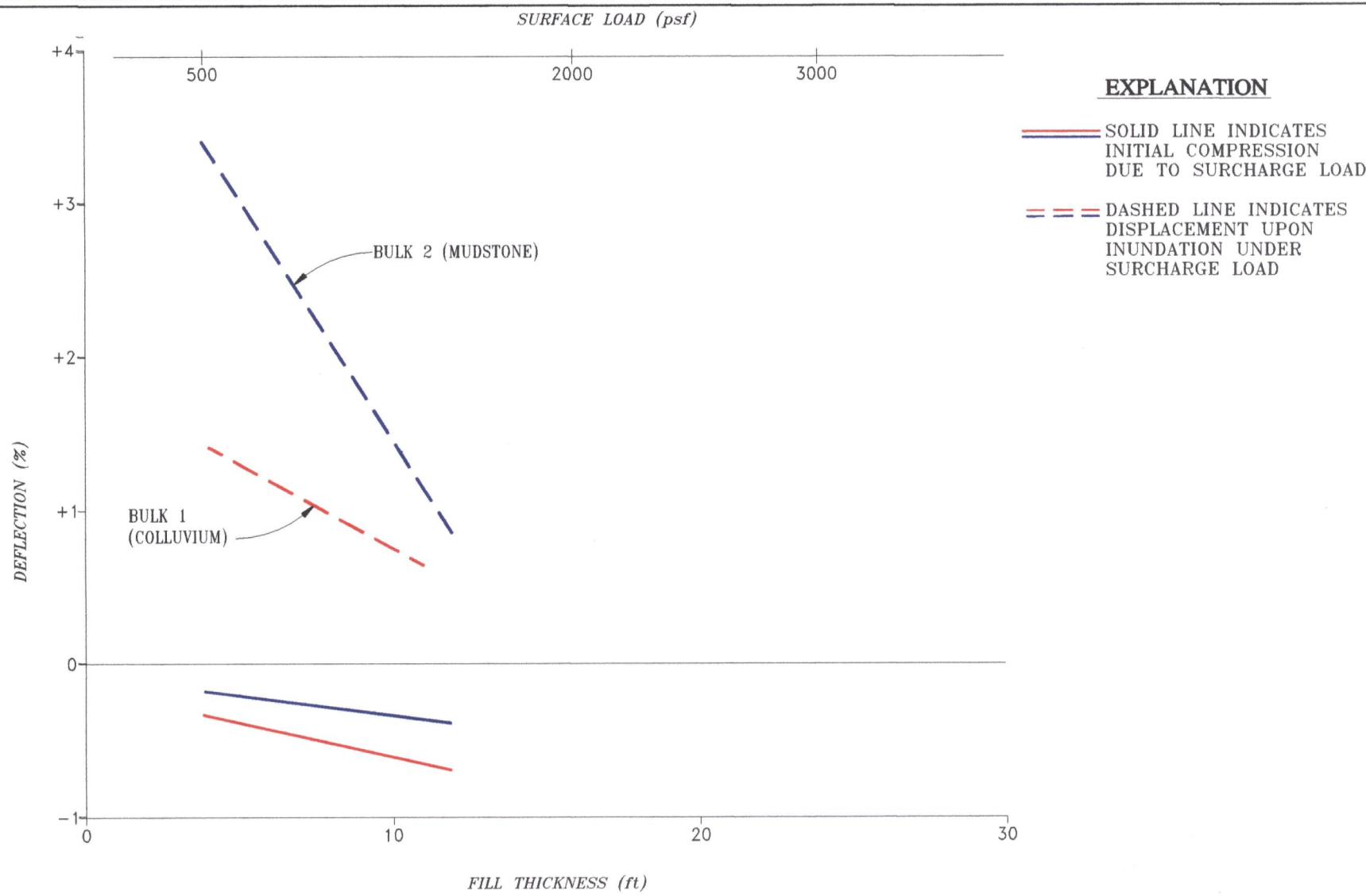
ENGEO INCORPORATED

R-VALUE TEST RESULTS
ELLISONDO PARCEL
BRENTWOOD,. CALIFORNIA

PROJECT NO.: **3359.2.050.01**
DATE: **JULY 1999**
DRAWN BY: CHECKED BY:

FIGURE NO. **34**

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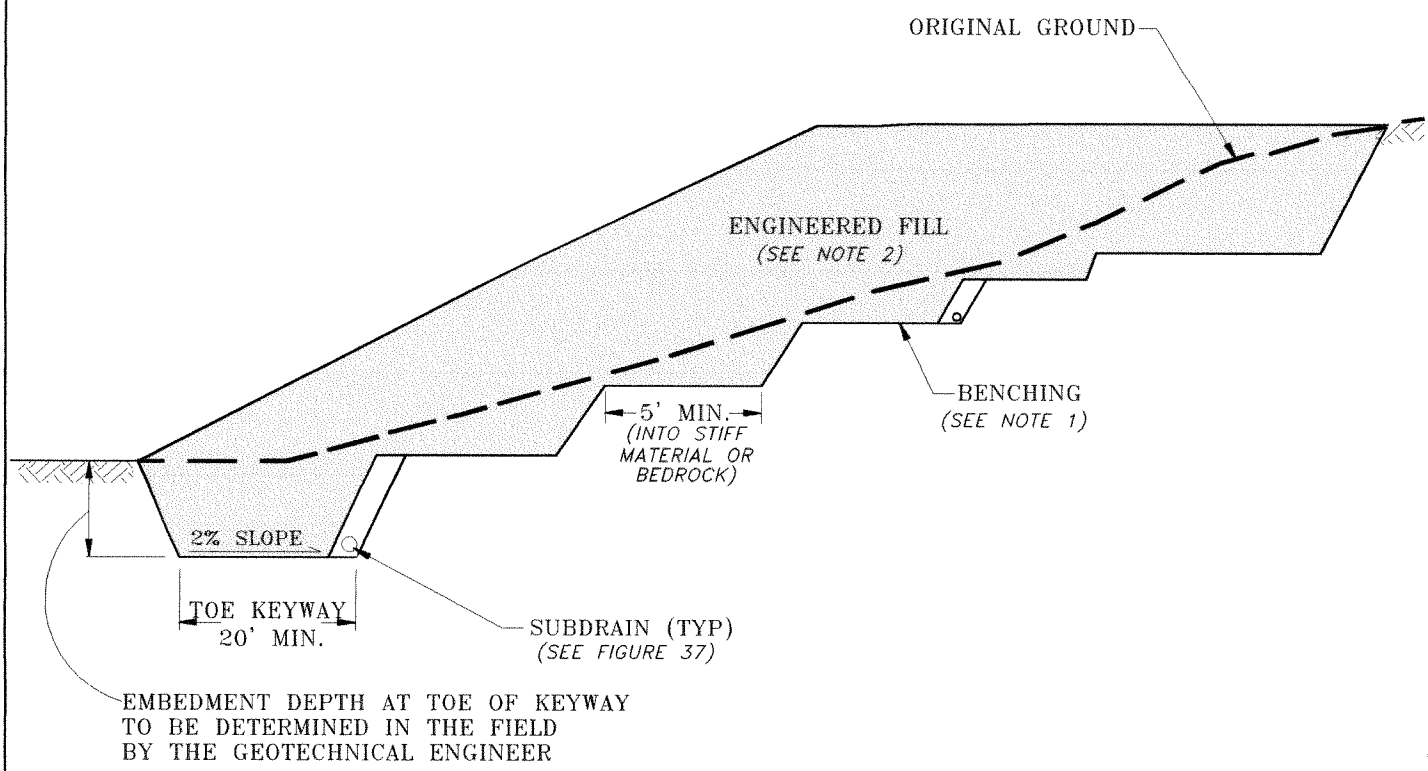
ENGEO INCORPORATED

PLOT OF SINGLE-POINT HYDRO-EXPANSION/COMPRESSION TESTS
ELLISONDO PARCEL
BRENTWOOD, CALIFORNIA

PROJECT NO.: 3359.2.050.01
DATE: JULY 1999
DRAWN BY: J.B. CHECKED BY: A

FIGURE NO. 35

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NOTES:

1. WHERE NATURAL GRADE STEEPER THAN 7:1, BENCH INTO STIFF SOIL OR BEDROCK AS DETERMINED IN THE FIELD BY GEOTECHNICAL ENGINEER
2. ENGINEERED FILL MATERIAL USED FOR FILL SLOPES AND KEYWAYS SHOULD CONSIST PRIMARILY OF APPROVED BEDROCK MATERIALS
3. FOR SLOPE HEIGHT AND MAXIMUM SLOPE GRADIENT, REFER TO THE TEXT OF THE REPORT

N.T.S.

ENGEO INCORPORATED

TYPICAL FILL SLOPE AND KEYWAY DETAIL

ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

PROJECT NO.: 3359.2.050.01	FIGURE NO. 36
DATE: JULY 1999	
DRAWN BY: DB	CHECKED BY: DC

*FILTER MEDIUM

ALTERNATIVE A

CLASS 2 PERMEABLE MATERIAL

MATERIAL SHALL CONSIST OF CLEAN, COARSE SAND AND GRAVEL OR CRUSHED STONE, CONFORMING TO THE FOLLOWING GRADING REQUIREMENTS:

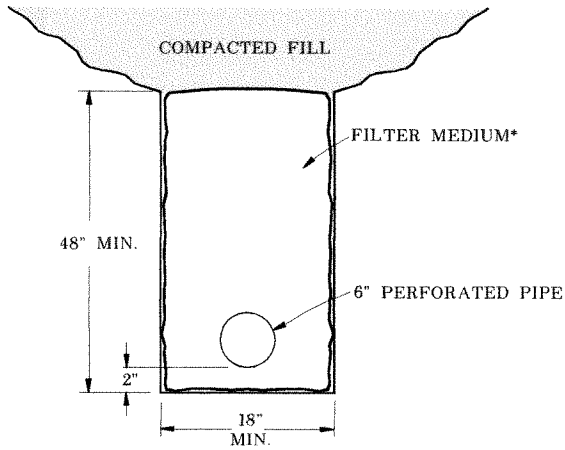
SIEVE SIZE	% PASSING SIEVE
1"	100
3/4"	90–100
3/8"	40–100
#4	25–40
#8	18–33
#30	5–15
#50	0–7
#200	0–3

ALTERNATIVE B

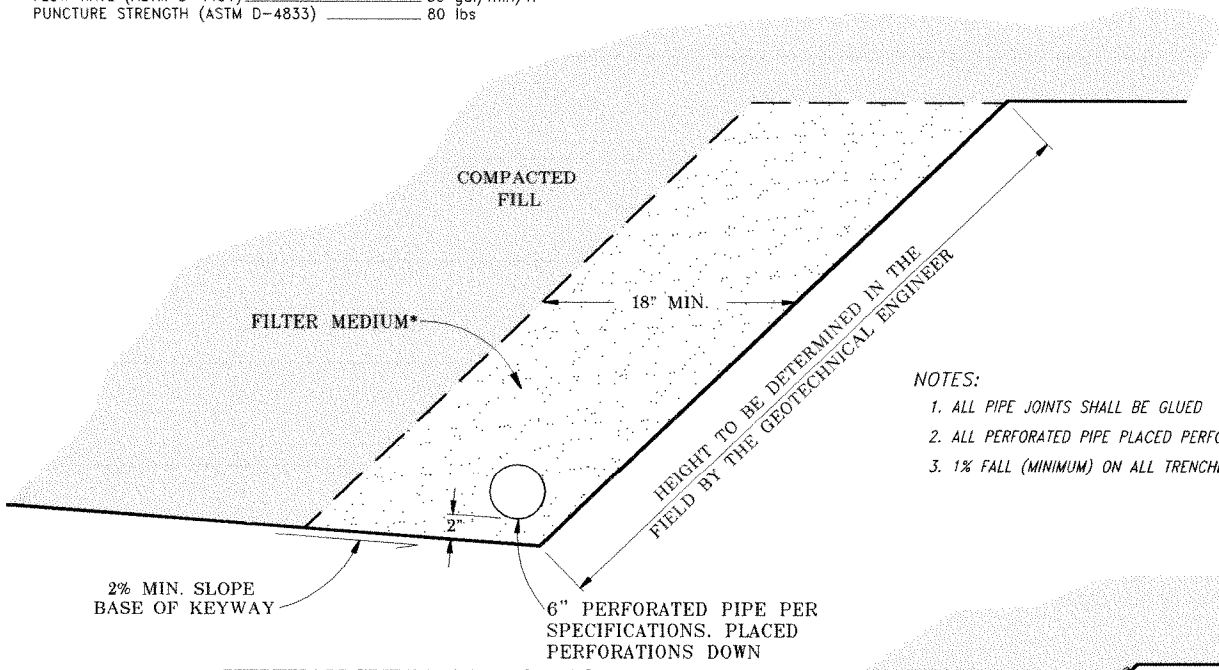
CLEAN CRUSHED ROCK OR GRAVEL WRAPPED IN FILTER FABRIC

ALL FILTER FABRIC SHALL MEET THE FOLLOWING MINIMUM AVERAGE ROLL VALUES UNLESS OTHERWISE SPECIFIED BY ENGEO:

GRAB STRENGTH (ASTM D-4632)	180 lbs
MASS PER UNIT AREA (ASTM D-4751)	6 oz/yd^2
APPARENT OPENING SIZE (ASTM D-4751)	70–100 U.S. STD. SIEVE
FLOW RATE (ASTM D-4491)	80 gal/min/ft
PUNCTURE STRENGTH (ASTM D-4833)	80 lbs



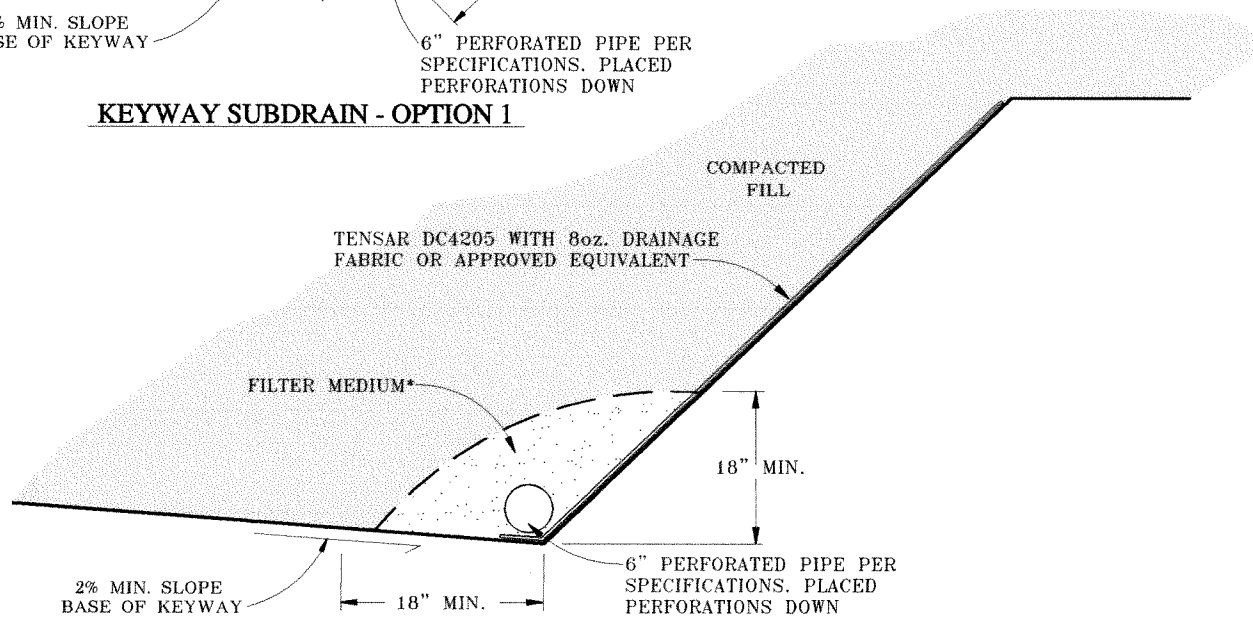
SWALE SUBDRAIN



NOTES:

1. *ALL PIPE JOINTS SHALL BE GLUED*
2. *ALL PERFORATED PIPE PLACED PERFORATIONS DOWN*
3. *1% FALL (MINIMUM) ON ALL TRENCHES AND DRAIN LINES*

KEYWAY SUBDRAIN - OPTION 1



KEYWAY SUBDRAIN - OPTION 2

N.T.S.

ENGEO INCORPORATED

TYPICAL SUBDRAIN DETAILS

ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

PROJECT NO.: 3359.2.050.01

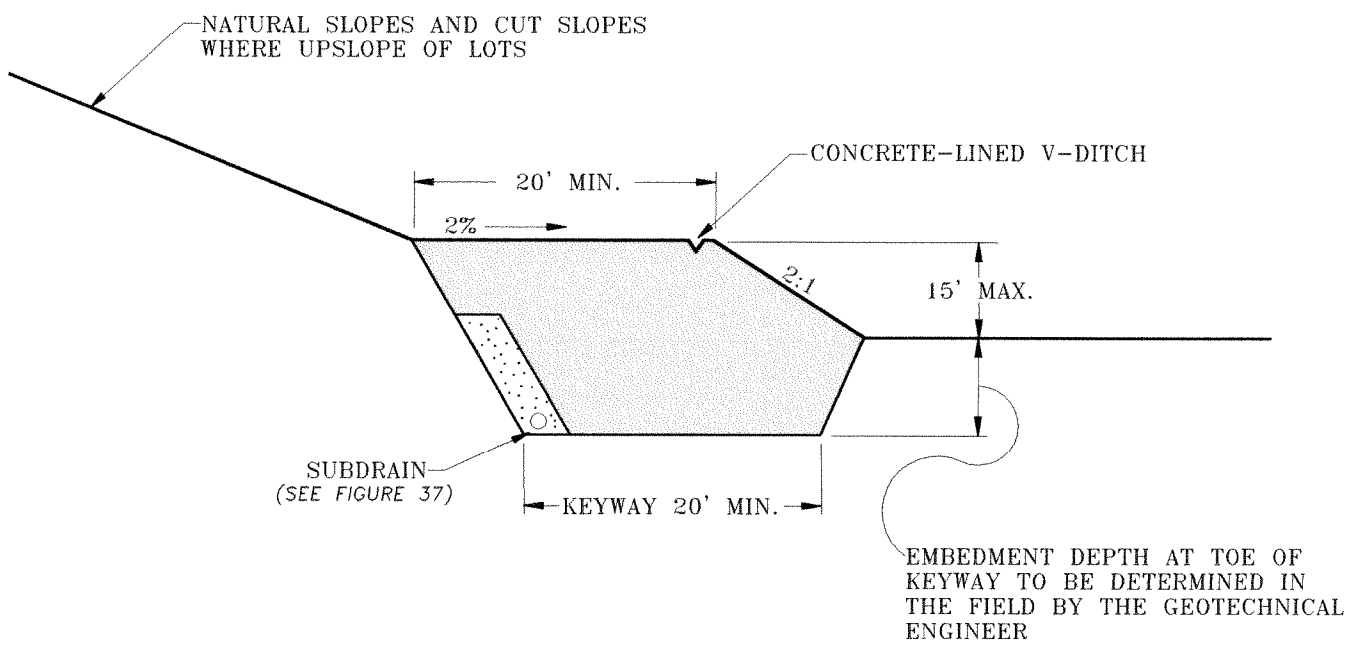
DATE: JULY 1999

DRAWN BY: B CHECKED BY: DC

FIGURE NO. 37

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N.T.S.

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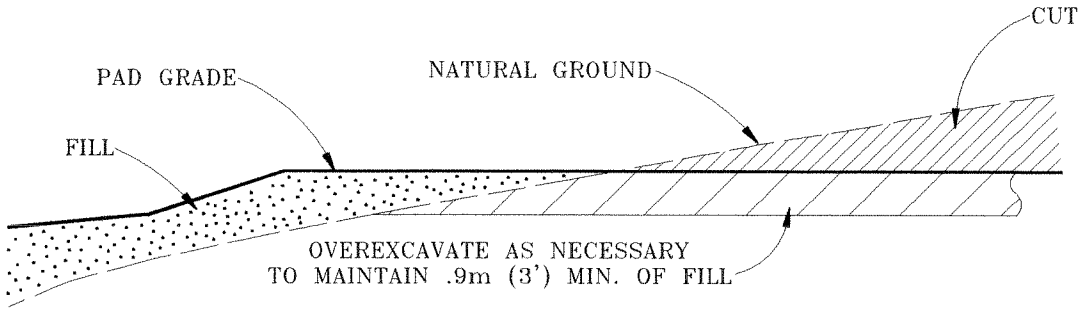
DEBRIS BENCH DETAIL

ELLISONDO PARCEL

BRENTWOOD, CALIFORNIA

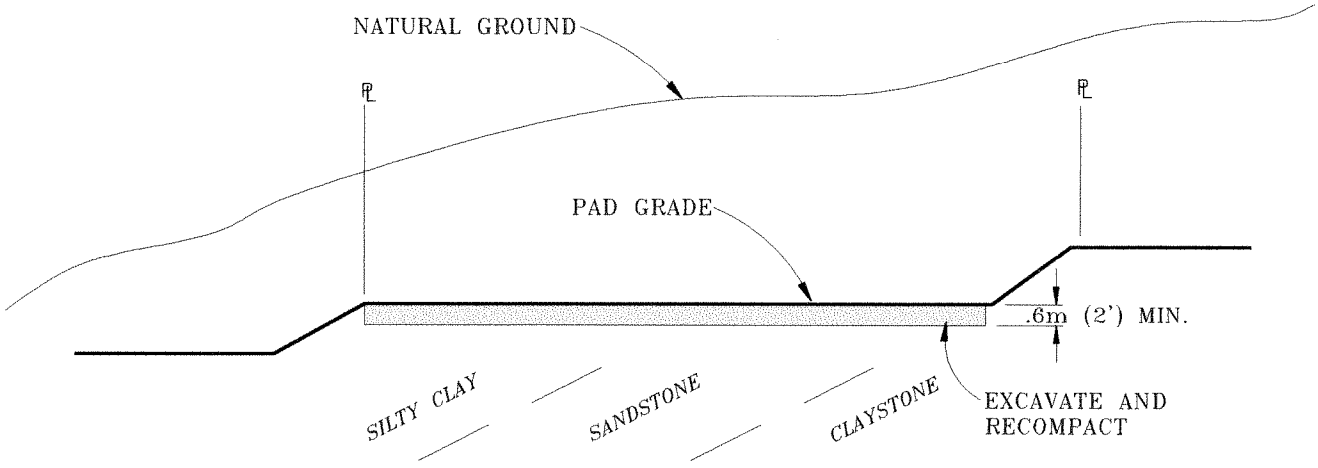
PROJECT NO.: 3359.2.050.01	FIGURE NO. 38
DATE: JULY 1999	
DRAWN BY: B	CHECKED BY: JC

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WHERE LOTS ARE PARTIALLY IN FILL, AND PARTIALLY IN CUT, THE CUT PORTION MUST BE OVEREXCAVATED AS SHOWN.

CUT/FILL LOT



WHERE LOTS ARE COMPLETELY IN CUT, THE UPPER .6m (2') SHOULD BE EXCAVATED AND RECOMPACTED AS SHOWN

CUT LOT

N.T.S.

ENGEO INCORPORATED	OVEREXCAVATION FOR CUT/FILL AND CUT LOTS ELLISONDO PARCEL BRENTWOOD, CALIFORNIA	PROJECT NO.: 3359.2.050.01 DATE: JULY 1999 DRAWN BY: CHECKED BY:	FIGURE NO. 39

TABLE I

REGIONAL FAULTS
CONSIDERED SIGNIFICANT POTENTIAL SEISMIC SOURCES

FAULT NAME	Approximate Distance mi (km)	Maximum Moment Mag.*	Peak Site Acc. g
GREENVILLE	9 (15)	6.90	0.340
CONCORD	13 (20)	6.70	0.179
CALAVERAS (No. of Calaveras)	16 (26)	6.80	0.233
LAS POSITAS	20 (32)	6.30	0.074
GREEN VALLEY	20 (33)	7.00	0.125
HAYWARD	26 (41)	7.10	0.135
CORDELIA	27 (43)	6.70	0.068
WEST NAPA	32 (52)	6.50	0.043
HEALDSBURG - RODGERS CREEK	40 (65)	7.00	0.049
SAN ANDREAS (Northern)	44 (71)	8.00	0.099)
PALO COLORADO – SAN GREGORIO	49 (78)	7.30	0.067
ZAMORA	53 (85)	6.50	0.21
SARGENT	56 (90)	6.80	0.030

13 FAULTS FOUND WITHIN THE SPECIFIED SEARCH RADIUS.

** SOURCE: CDMG, OPEN-FILE REPORT 96-08.

THE GREENVILLE FAULT IS CLOSEST TO THE SITE.
IT IS ABOUT 9.0 MILE AWAY.

ATTENUATION RELATION: CAMPBELL & BOZORGNIA (1994)

MAXIMUM MOMENT MAGNITUDE CALCULATED FROM RUPTURE AREA REGRESSIONS (WELLS & COPPERSMITH, 1994)

TABLE II

LABORATORY TESTS - PURPOSE

1. Natural Unit Weight and Moisture Content (ASTM D-2216)

   Provides in-place density and percentage moisture by dry weight. These aid in characterizing existing and previous ground-water conditions, soil compressibility, and degree of saturation.

2. Atterberg Limits (ASTM D-4318)

   Performed primarily on cohesive soils. Includes the Liquid Limit and the Plastic Limit. From these, a Plasticity Index can be computed which allows classification of the soil and is an indirect measure of its expansion characteristics.

3. Direct Shear (ASTM D-3080)

   Provides shear strength parameters including cohesion c, and angle of internal friction ϕ, which are used in foundation design and slope stability analyses.

4. Unconfined Compressive Strength (ASTM D-2166)

   Determined usually on cohesive (clay) materials to establish allowable design foundation bearing capacity or estimated shear strength for slope stability studies.

5. Expansion Index (UBC 29-2)

   Determines an "Expansion Index" number derived from a measurement of swell for a remolded soil sample under relatively light loads and prescribed initial density and moisture level.

6. Swell Potential (ASTM D-4546)

   Determines the swell pressure developed by a confined soil when subjected to increased moisture. Also measures volume change due to heave for various initial moisture levels.

7. Consolidation (ASTM D-2435)

   Performed on compressible soils. Provides data for computation of consolidation characteristics. Parameters which can be estimated include Preconsolidation Pressure, P_c and Compression Index, C_c. These are used to estimate foundation and fill settlements.

8. Compaction (ASTM D-1557)

   Generates a "Compaction Curve" (unit weight vs. moisture content) from which maximum unit weight and optimum moisture content may be estimated. These are used for field testing of engineered fill, and for approximating shrinkage factors in preliminary quantity estimates for grading.

9. R-Value (ASTM D-2844)

   Performed on subgrade soils to compute the resistance (R) value which is used in design of roadway pavement sections.

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TABLE III
SUMMARY OF LABORATORY TEST RESULTS

Boring and Sample Number	Depth Feet	In-Place		Atterberg Limits			Shear Test		Unconfined Compressive Strength psf
		Dry Unit Weight pcf	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	Angle of Internal Friction	Unit Cohesion psf	
1-1-1	2½-3	114.1	12.4						
1-2-1	7-7½	118.5	13.1						
1-3-1	11-11½	109.7	17.2						
1-4-1	16-16½	101.0	9.7						
1-5-1	21-21½	111.0	17.3						
2-1-1	2-2½	116.7	14.7						
2-2-1	6-6½	106.3	8.7						
2-3-1	9½-10	114.0	11.1						
2-4-1	15-15½	115.5	10.5						
2-5-1	15½-17		8.2						
3-1-1	2-2½	115.4	11.6						
3-2-1	6-6½	113.9	16.1						
3-3-1	9-9½	95.2	22.6						
3-4-1	15-15½	113.0	16.0						
4-1-1	2-2½	109.3	12.4						
4-2-1	6-6½	103.6	12.5						10,610

ENGEO INCORPORATED
TABLE III
SUMMARY OF LABORATORY TEST RESULTS

Boring and Sample Number	Depth Feet	In-Place		Atterberg Limits			Shear Test		Unconfined Compressive Strength psf
		Dry Unit Weight pcf	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	Angle of Internal Friction	Unit Cohesion psf	
4-3-1	9-9½	123.8	10.6						
4-4-1	15-15½	115.4	9.7						
5-1-1	2-2½	101.2	10.7						
5-2-1	5-5½	106.7	17.4						
5-3-1	9-10½		25.9						
5-4-1	14½-15	107.0	20.8						
5-5-1	18½-20		26.5						
6-1-1	2-2½	89.9	22.6						
6-2-1	4½-5	98.2	17.7						
6-3-1	9½-10	99.6	13.1						
6-4-1	14-14½	107.4	19.2						
6-5-1	18½-20		23.1						
7-1-1	2-2½	102.9	19½						
7-2-1	5½-6	92.8	20.0						
7-3-1	8½-10		19.7						
7-4-1	14½-15	113.9	14½						

ENGEO INCORPORATED
TABLE III
SUMMARY OF LABORATORY TEST RESULTS

Boring and Sample Number	Depth Feet	In-Place		Atterberg Limits			Shear Test		Unconfined Compressive Strength psf
		Dry Unit Weight pcf	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	Angle of Internal Friction	Unit Cohesion psf	
7-5-1	18½-20		24.9						
7-6-1	23½-25		18.0						
7-7-1	28½-30		21.4						
8-1-1	2-2½	98.7	27.9						
8-2-1	4-5½		25.6						
8-3-1	9-9½	94.1	27.8	51	27	24			
8-4-1	13½-15		23.8						
9-1-1	2-2½	76.0	18.1						
9-2-1	4-4½	104.2	19.7						
9-3-1	9½-10	90.3	30.6						
9-4-1	14-14½	94.2	28.0						8,020
9-5-1	18½-20		38.7						
10-1-1	2-2½		21.1	68	25	43			
10-2-1	4-5½	90.8	19.6						
10-3-1	8½-9	86.2	23.4						
10-4-1	13½-15		24.1						

ENGEO INCORPORATED
TABLE III
SUMMARY OF LABORATORY TEST RESULTS

Boring and Sample Number	Depth Feet	In-Place		Atterberg Limits			Shear Test		Unconfined Compressive Strength psf
		Dry Unit Weight pcf	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	Angle of Internal Friction	Unit Cohesion psf	
11-1-1	2-2½	110.6	12.4						
11-2-1	5-5½	102.6	13.2						
11-3-1	10-10½	105.9	13.4						
11-4-1	13½-15		23.3						
12-1-1	2-2½		18.7						
12-2-1	5-5½	72.0	15½						
12-3-1	8-9½		31½						
12-4-1	13½-15		26.7						
13-1-1	1-1½	93.7	9.7						
13-2-1	4½-5	103.8	16.7						
13-3-1	8½-10		22.1						
13-4-1	13½-15		27.8						
13-5-1	18½-20		24.9						
14-1-1	2-2½	106.2	15.1						16,360
14-2-1	5-5½	111.9	15.1						
14-3-1	9-9½	112.0	17.2						

ENGEO INCORPORATED
TABLE III
SUMMARY OF LABORATORY TEST RESULTS

Boring and Sample Number	Depth Feet	In-Place		Atterberg Limits			Shear Test		Unconfined Compressive Strength psf
		Dry Unit Weight pcf	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	Angle of Internal Friction	Unit Cohesion psf	
14-4-1	14½-15	99.1	25.6						
15-1-1	2-2½	112.7	15.0						
15-2-1	5-5½	98.1	21.3						
15-3-1	9-10½		26.2						
15-4-1	14-15½		22.6						
16-1-1	2-2½		17.7						
16-2-1	4½-5	87.4	24.7						
16-3-1	9-10½		28.2						
16-4-1	14-15½		28.3						
Bulk 1	0-20		6.2						
Bulk 2	3-20		11.8						

GUIDE CONTRACT SPECIFICATIONS

PART I - EARTHWORK

PREFACE

These specifications are intended as a guide for the earthwork performed at the subject development project. If there is a conflict between these specifications (including the recommendations of the geotechnical report) and agency or code requirements, it should be brought to the attention of ENGEO and Owner prior to contract bidding.

PART 1 - GENERAL

1.01 WORK COVERED

A. Grading, excavating, filling and backfilling, including trenching and backfilling for utilities as necessary to complete the Project as indicated on the Drawings.

B. Subsurface drainage as indicated on the Drawings.

1.02 CODES AND STANDARDS

A. Excavating, trenching, filling, backfilling, and grading work shall meet the applicable requirements of the Uniform Building Code and the standards and ordinances of state and local governing authorities.

1.03 SUBSURFACE SOIL CONDITIONS

A. The Owners' Geotechnical Exploration report is available for inspection by bidder or Contractor. The Contractor shall refer to the findings and recommendations of the Geotechnical Exploration report in planning and executing his work.

1.04 DEFINITIONS

A. Fill: All soil, rock, or soil-rock materials placed to raise the grades of the site or to backfill excavations.

B. Backfill: All soil, rock or soil-rock material used to fill excavations and trenches.

C. On-Site Material: Soil and/or rock material which is obtained from the site.

D. Imported Material: Soil and/or rock material which is brought to the site from off-site areas.

E. Select Material: On-site and/or imported material which is approved by ENGEO as a specific-purpose fill.

F. Engineered Fill: Fill upon which ENGEO has made sufficient observations and tests to confirm that the fill has been placed and compacted in accordance with specifications and requirements.

G. Degree of Compaction or Relative Compaction: The ratio, expressed as a percentage, of the in-place dry density of the fill and backfill material as compacted in the field to the maximum dry density of the same material as determined by ASTM D-1557 or California 216 compaction test method.

H. Optimum Moisture: Water content, percentage by dry weight, corresponding to the maximum dry density as determined by ASTM D-1557.

I. ENGEO: The project geotechnical engineering consulting firm, its employees or its designated representatives.

J. Drawings: All documents, approved for construction, which describe the Work.

1.05 OBSERVATION AND TESTING

A. All site preparation, cutting and shaping, excavating, filling, and backfilling shall be carried out under the observation of ENGEO, employed and paid for by the Owners. ENGEO will perform appropriate field and laboratory tests to evaluate the suitability of fill material, the proper moisture content for compaction, and the degree of compaction achieved. Any fill that does not meet the specification requirements shall be removed and/or reworked until the requirements are satisfied.

B. Cutting and shaping, excavating, conditioning, filling, and compacting procedures require approval of ENGEO as they are performed. Any work found unsatisfactory or any work disturbed by subsequent operations before approval is granted shall be corrected in an approved manner as recommended by ENGEO.

C. Tests for compaction will be made in accordance with test procedures outlined in ASTM D-1557, as applicable. Field testing of soils or compacted fill shall conform with the applicable requirements of ASTM D-2922.

D. All authorized observation and testing will be paid for by the Owners.

1.06 SITE CONDITIONS

A. Excavating, filling, backfilling, and grading work shall not be performed during unfavorable weather conditions. When the work is interrupted by rain, excavating, filling, backfilling, and grading work shall not be resumed until the site and soil conditions are suitable.

B. Contractor shall take the necessary measures to prevent erosion of freshly filled, backfilled, and graded areas until such time as permanent drainage and erosion control measures have been installed.

PART 2 - PRODUCTS

2.01 GENERAL

A. Contractor shall furnish all materials, tools, equipment, facilities, and services as required for performing the required excavating, filling, backfilling, and grading work, and trenching and backfilling for utilities.

2.02 SOIL MATERIALS

A. Fill

1. Material to be used for engineered fill and backfill shall be free from organic matter and other deleterious substances, and of such quality that it will compact thoroughly without excessive voids when watered and rolled. Excavated on-site material will be considered suitable for engineered fill and backfill if it contains no more than 3 percent organic matter, is free of debris and other deleterious substances and conforms to the requirements specified above. Rocks of maximum dimension in excess of two-thirds of the lift thickness shall be removed from any fill material to the satisfaction of ENGEO.

2. Excavated earth material which is suitable for engineered fill or backfill, as determined by ENGEO, shall be conditioned for reuse and properly stockpiled as required for later filling and backfilling operations. Conditioning shall consist of spreading material in layers not to exceed 8 inches and raking free of debris and rubble. Rocks and aggregate exceeding the allowed largest dimension, and deleterious material shall be removed from the site and disposed off site in a legal manner.

3. ENGEO shall be notified at least 48 hours prior to the start of filling and backfilling operations so that it may evaluate samples of the material intended for use as fill and backfill. All materials to be used for filling and backfilling require the approval of ENGEO.

B. Import Material: Where conditions require the importation of fill material, the material shall be an inert, nonexpansive soil or soil-rock material free of organic matter and meeting the following requirements unless otherwise approved by ENGEO.

Gradation (ASTM D-421):	Sieve Size	Percent Passing
	2-inch	100
	#200	15 - 70
Plasticity (ASTM D-4318):	Liquid Limit	Plasticity Index
	< 30	< 12
Swell Potential (ASTM D-4546B): (at optimum moisture)	Percent Heave	Swell Pressure
	< 2 percent	< 300 psf
Resistance Value (ASTM D-2844):	Minimum 25	
Organic Content (ASTM D-2974):	Less than 2 percent	

A sample of the proposed import material should be submitted to ENGEO for evaluation prior to delivery at the site.

2.03 SAND

A. Sand for sand cushion under slabs and for bedding of pipe in utility trenches shall be a clean and graded, washed sand, all passing a No. 4 U. S. Standard Sieve, and generally conforming to ASTM C33 for fine aggregate.

2.04 AGGREGATE DRAINAGE FILL

A. Aggregate drainage fill under concrete slabs and paving shall consist of broken stone, crushed or uncrushed gravel, clean quarry waste, or a combination thereof. The aggregate shall be free from fines, vegetable matter, loam, volcanic tuff, and other deleterious substances. It shall be of such quality that the absorption of water in a

saturated surface dry condition does not exceed 3 percent of the oven dry weight of the samples.

B. Aggregate drainage fill shall be of such size that the percentage composition by dry weight as determined by laboratory sieves (U. S. Series) will conform to the following grading:

Sieve Size	Percentage Passing Sieve
1½-inches	100
1-inch	90 - 100
#4	0 - 5

2.05 SUBDRAINS

A. Perforated subdrain pipe of the required diameter shall be installed as shown on the drawings. The pipe(s) shall also conform to these specifications unless otherwise specified by ENGEO in the field.

Subdrain pipe shall be manufactured in accordance with one of the following requirements:

Design depths less than 30 feet

- Perforated ABS Solid Wall SDR 35 (ASTM D-2751)
- Perforated PVC Solid Wall SDR 35 (ASTM D-3034)
- Perforated PVC A-2000 (ASTM F949)
- Perforated Corrugated HDPE double-wall (AASHTO M-252 or M-294, Caltrans Type S, 50 psi minimum stiffness)

Design depths less than 50 feet

- Perforated PVC SDR 23.5 Solid Wall (ASTM D-3034)
- Perforated Sch. 40 PVC Solid Wall (ASTM-1785)
- Perforated ABS SDR 23.5 Solid Wall (ASTM D-2751)
- Perforated ABS DWV/Sch. 40 (ASTM D-2661 and D-1527)
- Perforated Corrugated HDPE double-wall (AASHTO M-252 or M-294, Caltrans Type S, 70 psi minimum stiffness)

Design depths less than 70 feet

- Perforated ABS Solid Wall SDR 15.3 (ASTM D-2751)
- Perforated Sch. 80 PVC (ASTM D-1785)
- Perforated Corrugated Aluminum (ASTM B-745)

B. Permeable Material (Class 2): Class 2 permeable material for filling trenches under, around, and over subdrains, behind building and retaining walls, and for pervious blankets shall consist of clean, coarse sand and gravel or crushed stone, conforming to the following grading requirements:

Sieve Size	Percentage Passing Sieve
1-inch	100
¾-inch	90 - 100
3/8-inch	40 - 100
#4	25 - 40
#8	18 - 33
#30	5 - 15
#50	0 - 7
#200	0 - 3

C. Filter Fabric: All filter fabric shall meet the following Minimum Average Roll Values unless otherwise specified by ENGEO.

Grab Strength (ASTM D-4632).....180 lbs
Mass Per Unit Area (ASTM D-4751).....6 oz/yd^2
Apparent Opening Size (ASTM D-4751).....70-100 U.S. Std. Sieve
Flow Rate (ASTM D-4491).....80 gal/min/ft^2
Puncture Strength (ASTM D-4833).....80 lbs

D. Vapor Barrier: Vapor barriers shall consist of PVC, LDPE or HDPE impermeable sheeting at least 10 mils thick.

2.06 PERMEABLE MATERIAL (Class 1; Type A)

A. Class 1 permeable material to be used in conjunction with filter fabric for backfilling of subdrain excavations shall conform to the following grading requirements:

Sieve Size	Percentage Passing Sieve
¾-inch	100
½-inch	95 - 100
3/8-inch	70 - 100
#4	0 - 55
#8	0 - 10
#200	0 - 3

PART 3 - EXECUTION

3.01 STAKING AND GRADES

A. Contractor shall lay out all his work, establish all necessary markers, bench marks, grading stakes, and other stakes as required to achieve design grades.

3.02 EXISTING UTILITIES

A. Contractor shall verify the location and depth (elevation) of all existing utilities and services before performing any excavation work.

3.03 EXCAVATION

A. Contractor shall perform excavating as indicated and required for concrete footings, drilled piers, foundations, floor slabs, concrete walks, and site leveling and grading, and provide shoring, bracing, underpinning, cribbing, pumping, and planking as required. The bottoms of excavations shall be firm undisturbed earth, clean and free from loose material, debris, and foreign matter.

B. Excavations shall be kept free from water at all times. Adequate dewatering equipment shall be maintained at the site to handle emergency situations until concrete or backfill is placed.

C. Unauthorized excavations for footings shall be filled with concrete to required elevations, unless other methods of filling are authorized by ENGEO.

D. Excavated earth material which is suitable for engineered fill or backfill, as determined by ENGEO, shall be conditioned for reuse and properly stockpiled for later filling and backfilling operations as specified under Section 2.02, "Soil Materials."

E. Abandoned sewers, piping, and other utilities encountered during excavating shall be removed and the resulting excavations shall be backfilled with engineered fill as required by ENGEO.

F. Any active utility lines encountered shall be reported immediately to the Owner's Representative and authorities involved. The Owner and proper authorities shall be permitted free access to take the measures deemed necessary to repair, relocate, or remove the obstruction as determined by the responsible authority or Owner's Representative.

3.04 SUBGRADE PREPARATION

A. All brush and other rubbish, as well as trees and root systems not marked for saving, shall be removed from the site and legally disposed of.

B. Any existing structures, foundations, underground storage tanks, or debris must be removed from the site prior to any building, grading, or fill operations. Septic tanks, including all drain fields and other lines, if encountered, must be totally removed. The resulting depressions shall be properly prepared and filled to the satisfaction of ENGEO.

C. Vegetation and organic topsoil shall be removed from the surface upon which the fill is to be placed and either removed and legally disposed of or stockpiled for later use in approved landscape areas. The surface shall then be scarified to a depth of at least eight inches until the surface is free from ruts, hummocks, or other uneven features which would tend to prevent uniform compaction by the equipment to be used.

D. After the foundation for the fill has been cleared and scarified, it shall be made uniform and free from large clods. The proper moisture content must be obtained by adding water or aerating. The foundation for the fill shall be compacted at the proper moisture content to a relative compaction as specified herein.

3.05 ENGINEERED FILL

A. Select Material: Fill material shall be "Select" or "Imported Material" as previously specified.

B. Placing and Compacting: Engineered fill shall be constructed by approved and accepted methods. Fill material shall be spread in uniform lifts not exceeding 8 inches in uncompacted thickness. Each layer shall be spread evenly, and thoroughly blade-mixed to obtain uniformity of material. Fill material which does not contain sufficient moisture as specified by ENGEO shall be sprinkled with water; if it contains

excess moisture it shall be aerated or blended with drier material to achieve the proper water content. Select material and water shall then be thoroughly mixed before being compacted.

C. Unless otherwise specified in the Geotechnical Exploration report, each layer of spread select material shall be compacted to at least 90 percent relative compaction at a moisture content of at least three percent above the optimum moisture content. Minimum compaction in all keyways shall be a minimum of 95 percent with a minimum moisture content of at least 1 percent above optimum.

D. Unless otherwise specified in the Geotechnical Exploration report or otherwise required by the local authorities the upper 6 inches of engineered fill in areas to receive pavement shall be compacted to at least 95 percent relative compaction.

E. Testing and Observation of Fill: The work shall consist of field observation and testing to determine that each layer has been compacted to the required density and that the required moisture is being obtained. Any layer or portion of a layer that does not attain the compaction required shall be reworked until the required density is obtained.

F. Compaction: Compaction shall be by sheepsfoot rollers, multiple-wheel steel or pneumatic-tired rollers or other types of acceptable compaction equipment. Rollers shall be of such design that they will be able to compact the fill to the specified compaction. Rolling shall be accomplished while the fill material is within the specified moisture content range. Rolling of each layer must be continuous so that the required compaction may be obtained uniformly throughout each layer.

G. Fill slopes shall be constructed by overfilling the design slopes and later cutting back the slopes to the design grades. No loose soil will be permitted on the faces of the finished slopes.

H. Strippings and topsoil shall be stockpiled as approved by Owner, then placed in accordance with ENGEO's recommendations to a minimum thickness of 6 inches over exposed open space cut slopes which are 3:1 or flatter, and track walked to the satisfaction of ENGEO.

I. Final Prepared Subgrade: Finish blading and smoothing shall be performed as necessary to produce the required density, with a uniform surface, smooth and true to grade.

3.06 BACKFILLING

A. Backfill shall not be placed against footings, building walls, or other structures until approved by ENGEO.

B. Backfill material shall be Select Material as specified for engineered fill.

C. Backfill shall be placed in 6-inch layers, leveled, rammed, and tamped in place. Each layer shall be compacted with suitable compaction equipment to 90 percent relative compaction at a moisture content of at least 3 percent above optimum.

3.07 TRENCHING AND BACKFILLING FOR UTILITIES

A. Trenching:

1. Trenching shall include the removal of material and obstructions, the installation and removal of sheeting and bracing and the control of water as necessary to provide the required utilities and services.

2. Trenches shall be excavated to the lines, grades, and dimensions indicated on the Drawings. Maximum allowable trench width shall be the outside diameter of the pipe plus 24 inches, inclusive of any trench bracing.

3. When the trench bottom is a soft or unstable material as determined by ENGEO, it shall be made firm and solid by removing said unstable material to a sufficient depth and replacing it with on-site material compacted to 90 percent minimum relative compaction.

4. Where water is encountered in the trench, the contractor must provide materials necessary to drain the water and stabilize the bed.

B. Backfilling:

1. Trenches must be backfilled within 2 days of excavation to minimize desiccation.

2. Bedding material shall be sand and shall not extend more than 6 inches above any utility lines.

3. Backfill material shall be select material.

4. Trenches shall be backfilled as indicated or required and compacted with suitable equipment to 90 percent minimum relative compaction at the required moisture content.

3.08 SUBDRAINS

A. Trenches for subdrain pipe shall be excavated to a minimum width equal to the outside diameter of the pipe plus at least 12 inches and to a depth of approximately 2 inches below the grade established for the invert of the pipe, or as indicated on the Drawings.

B. The space below the pipe invert shall be filled with a layer of Class 2 permeable material, upon which the pipe shall be laid with perforations down. Sections shall be joined as recommended by the pipe manufacturer.

C. Rocks, bricks, broken concrete, or other hard material shall not be used to give intermediate support to pipes. Large stones or other hard objects shall not be left in contact with the pipes.

D. Excavations for subdrains shall be filled as required to fill voids and prevent settlement without damaging the subdrain pipe. Alternatively, excavations for subdrains may be filled with Class 1 permeable material (as defined in Section 2.06) wrapped in Filter Fabric (as defined in Section 2.05).

3.09 AGGREGATE DRAINAGE FILL

A. ENGEO shall approve finished subgrades before aggregate drainage fill is installed.

B. Pipes, drains, conduits, and any other mechanical or electrical installations shall be in place before any aggregate drainage fill is placed. Backfill at walls to elevation of drainage fill shall be in place and compacted.

C. Aggregate drainage fill under slabs and concrete paving shall be the minimum uniform thickness after compaction of dimensions indicated on Drawings. Where not indicated, minimum thickness after compaction shall be 4 inches.

D. Aggregate drainage fill shall be rolled to form a well-compacted bed.

E. The finished aggregate drainage fill must be observed and approved by ENGEO before proceeding with any subsequent construction over the compacted base or fill.

3.10 SAND CUSHION

A. A sand cushion shall be placed over the vapor barrier membrane under concrete slabs on grade. Sand cushion shall be placed in uniform thickness as indicated on the Drawings. Where not indicated, the thickness shall be 2 inches.

3.11 FINISH GRADING

A. All areas must be finish graded to elevations and grades indicated on the Drawings. In areas to receive topsoil and landscape planting, finish grading shall be performed to a uniform 6 inches below the grades and elevations indicated on the Drawings, and brought to final grade with topsoil.

3.12 DISPOSAL OF WASTE MATERIALS

A. Excess earth materials and debris shall be removed from the site and disposed of in a legal manner. Location of dump site and length of haul are the Contractor's responsibility.

Appendix B

Preliminary Stormwater Control Plan

February 18, 2022

PRELIMINARY STORMWATER CONTROL PLAN PREPARED FOR:

Discovery Builders, Inc.
4061 Port Chicago Highway, Suite H
Concord, California 94520
(925) 682-6419

by

Camille Pauley, E.I.T., CFM
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Balance Hydrologics

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Project Assignment: 220125

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APPENDICES

Appendix A Natural Resources Conservation Services, Web Soil Survey Data for the Bridle Gate and Enclave Project Area

Appendix B IMP Sizing Tool Calculations Report for the Bridle Gate Project Area

Appendix C Apex Civil Engineering and Land Surveying Vesting Tentative Map for Bridle Gate Subdivision

1 PROJECT DATA

Table 1-1. Project Data

Project Name/Number	Bridle Gate Residential Subdivision
Application Submittal Date	February 2022
Project Location	APN 019-082-007, located west of the western terminus of San Jose Avenue, Brentwood, CA
Name of Developer	WHCB Development, LLC
Project Phase No.	N/A
Project Type and Description	286 single-family homes with public streets and associated infrastructure
Project Watershed	Lower Marsh Creek
Total Project Site Area	92.6 acres[1]
Total Area of Land Disturbed	61.8 acres
Total New Impervious Surface Area	1,447,434 sq. ft
Total Replaced Impervious Surface Area	0 sq. ft
Total Pre-Project Impervious Surface Area	0 sq. ft
Total Post-Project Impervious Surface Area	1,447,434 sq. ft
50% Rule	Doesn't Apply
Project Density	3 DU/acre
Applicable Special Project Categories	None
Percent LID and non-LID Treatment	100% LID
HMP Compliance	Applies

1.1 Purpose

This document represents the Stormwater Control Plan (SCP) for the Bridle Gate Project ("Project"). Stormwater management in the context of this report includes the requirement to assess, and if necessary, mitigate for potential impacts, and to protect the functions and values of receiving waters. Potential hydrologic impacts addressed in this report include water quality management, hydromodification management, and peak flow control. This SCP summarizes the range of analyses used in the design of stormwater facilities, including the delineation of both existing on-site watersheds and post-project Drainage Management Areas (DMAs), and hydrologic and hydraulic modeling. This SCP also discusses the proposed strategies and facilities for addressing

[1] The information presented in this document is associated with the Vesting Tentative Map submittal (**Appendix C**) and excludes the designated remainder.

stormwater quality and quantity issues. The stormwater management approach presented herein meets or exceeds the prevailing regulatory standards such the Regional Water Control Board Order R2-2015-0049 and the Contra Costa County Clean Water Program Stormwater C.3 Guidebook.

The work included the compilation and review of relevant background materials to evaluate Project needs. These steps included:

- *Collection and review of past studies and background information*. Previously prepared studies were compiled and reviewed for information relevant to this study, and to identify any data gaps. This information included the Flood Insurance Rate Map (FIRM) for Contra Costa County prepared by the Federal Emergency Management Agency (FEMA), soil mapping information from the Web Soil Survey site maintained by the National Resources Conservation Service (NRCS), and relevant watershed maps and models provided by the Contra Costa County Flood Control and Water Conservation District ("Flood Control").

- *Summary of pertinent regulatory requirements*. Several documents were used to assess the current regulatory framework. These include the Basin Plan and MS4 Permit issued by the relevant Regional Water Quality Control Board (RWQCB) for this portion of Contra Costa County. Specific guidance and requirements were additionally taken from the Contra Costa Clean Water Program's Stormwater C.3 Guidebook and relevant Flood Control documents regarding peak flow control and detention basin design (CCCWP, 2017; hereafter "C.3 Guidebook"; CCCFC, 1991; CCCFC, 2011; CCCFC, 2018).

- *Hydrologic and hydraulic modeling.* Site characterization and facility design were informed through calculations using the Integrated Management Practices (IMP) Calculator tool provided in the C.3 Guidebook as well as preliminary-stage hydrologic and hydraulic modeling using the U.S. Army Corps of Engineers' HEC-HMS platform for peak flow (flood control) analysis. Modeling was conducted for the entire study area using Contra Costa County design standards (CCCFC, 2011; CCCFC, 2018).

This SCP accompanies the vesting tentative map for the project developed by Apex Civil Engineering & Land Surveying. The calculations and modeling presented herein are based on information from the received tentative map.

2 SETTING

Knowledge of the hydrologic setting of any project site provides important information about stormwater runoff potential, existing drainage patterns, and prevailing boundary conditions of receiving waters. Key to assessing these hydrologic opportunities and constraints is development of a baseline understanding of the geographic and topographic setting, local climate conditions, and surface soils; each of which influence the physical character of the watershed. Land uses within a watershed exert strong pressures on runoff and flood conditions. When unmitigated, urbanization results in flashier runoff condition; [2] mitigation is required through the design, construction, and maintenance of appropriate stormwater infrastructure.

2.1 Project Location and Description

The Bridle Gate Project is located in City of Brentwood, Contra Costa County (Figure 2-1). The Project site[3] includes approximately 93 acres, with proposed development consisting of single-family residential areas. The site is bounded on the south by an existing housing development and on the north by Sand Creek and the proposed extension of Sand Creek Road. The eastern boundary of the property is defined by Highway 4 and its off-ramp to Sand Creek Road, while the Antioch-Brentwood city border defines the western boundary. Sand Creek crosses through the northern portion of the property.

[2] "Flashier" generally means that the maximum runoff discharge from a given rain event is larger, sooner, and of shorter duration than it would be under more natural conditions.

[3] For the purposes of this report, the parcel boundary, as outlined in Figure 2-1, differs from the Project site and the development extents, which are also outlined in Figure 2-1. The parcel boundary includes the designated remainder (as shown in **Appendix C**), while the Project site and development extents do not. The Project site is the area of interest of this document.



Figure 2-1 Vicinity Map

2.2 Regional Watershed Overview

The Project site is located within the jurisdiction of the Central Valley Regional Water Quality Control Board ("RWQCB") Region 5 office, which provides guidance and regulates all aspects of water quality in streams and aquifers for watersheds draining to the Central Valley.

The San Francisco Bay RWQCB issued a Municipal Regional Stormwater National Pollution Discharge Elimination System (NPDES) Permit, Order R2-2015-0049, which regulates development in the location of the Project. Although eastern Contra Costa County regions drain to the Sacramento-San Joaquin Delta and is within the jurisdiction of the Central Valley Region 5 office, this area is now included in the San Francisco Bay Municipal Regional Stormwater NPDES Permit, as amended by R2-2019-0004. This permit

recognizes impairments to receiving waters and prescribes compliance requirements for municipalities to avoid violations of water quality standards.

In addition to the NPDES permitting program, the RWQCB regulates water quality for the region in accordance with the Water Quality Control Plan or 'Basin Plan' (RWQCB, 2018). The Basin Plan presents the beneficial uses that the Regional Board has designated for local aquifers, streams, marshes, rivers, and the Delta as well as the water-quality objectives and criteria that must be met to protect these uses. Multiple beneficial uses have been designated for Marsh Creek (to which Sand Creek drains). Marsh Creek beneficial uses include warm freshwater habitat, wildlife habitat, preservation of rare and endangered species, and contact and non-contact water recreation (SFBRWQCB, 2016).

The Project is located entirely within the Lower Marsh Creek watershed and DA 130, as mapped by Flood Control. Marsh Creek, with a total watershed area of 93.73 square miles, is the largest waterway in the City of Brentwood and is divided between Upper Marsh Creek (51.45 square miles) and Lower Marsh Creek (42.28 square miles), the portions of the creek upstream and downstream of the Marsh Creek Reservoir, respectively. The portion of Marsh Creek that forms the Lower Marsh Creek watershed originates at the outlet of the Marsh Creek Reservoir and currently flows generally northeast to its confluence with the San Joaquin River located in the City of Oakley. Sand Creek is a major tributary entering the middle portion of Marsh Creek.

Sand Creek west of State Highway 4 (i.e. where it crosses the Project) is a natural, unimproved channel. However, a few blocks east of Highway 4, Sand Creek transitions into an engineered channel and remains so until its confluence with Marsh Creek. The western portion of the site drains to Sand Creek as it passes through the property flowing west to east. This portion of Sand Creek is downstream of the recently constructed Upper Sand Creek Basin operated by Flood Control. At the eastern boundary of the Project site, Sand Creek drains about 12.8 square miles (8192 acres; USGS StreamStats, 2019). The Project (62 acres) accounts for under 1% of that drainage area.

The stormwater management approach presented in this document was developed using low-impact site design strategies and guidance provided by pertinent regulatory agencies. As such, this stormwater management plan meets or exceeds the regulatory requirements outlined above.

2.3 Existing Features and Site Conditions

2.3.1 Site Topography

The topography of the western region of the site is characterized by a ridge trending northwest, with moderate slopes to the east and a shallow northwest-trending valley to the west. The highest elevation on the site is on the ridge, at 231 feet.[4] East of the ridge, the hillslopes are gentler, with elevations decreasing towards the east.

2.3.2 Soil Characteristics

The surficial soil types in the Project are all classified as Hydrologic Soil Group (HSG)[5] C as presented in the National Resources Conservative Service (NRCS) web soil survey (USDA, 2012). HSG C soils are indicative of high runoff potential and low infiltration rates, which limit infiltration and recharge as primary methods for achieving stormwater management goals. The saturated hydraulic conductivities of the soils, which range from 1.0 to 2.7 micrometers/second (0.14 to 0.38 inches/hour) reflect the low infiltration capabilities of the soils. Specific soil types and area breakdowns can be found in the NRCS map of the property in **Appendix A**.

2.3.3 Land Use

Previous uses for the site include farming and crude oil extraction. The existing property is presently open space with no existing structures or impervious area. Currently, the site is almost exclusively characterized by grassland, with denser vegetation clustered around Sand Creek.

The proposed project consists of 292 single-family houses, in-tract streets, and public facilities (parks, water supply and stormwater infrastructure, etc.). The Project will also extend Sand Creek Road west from its existing terminus at State Highway 4 to the center of the Project.

[4] All elevations are referenced to NAVD88 unless otherwise specified.

[5] The NRCS hydrologic soil groups divide all soil types into four categories based on runoff potential. Type A soils, typically sands or gravels, have the lowest runoff potential and typically have high infiltration rates. Type D soils, generally heavy clays, have the highest runoff potential and typically have low infiltration rates.

2.3.4 Climate Characteristics

Geographically located in a semi-arid, Mediterranean climate region, mean annual rainfall in the vicinity is approximately 13 inches, per isohyetal mapping prepared by Flood Control (CCFC, 2010). As with the rest of the San Francisco Bay Area, yearly climate conditions include cool, wet winters and warm, dry summers. The volume of rainfall in individual wet season storm events, as well as peak rainfall intensities, can vary considerably from storm to storm and from year to year, with essentially all precipitation occurring as rainfall in the months of October through May.

2.4 Drainage Management Areas

2.4.1 Pre-project Drainage Management Areas and Points of Connection

The project site was divided into two drainage management areas ("DMAs") based on current drainage patterns and proposed development plans. The points to which these DMAs drain are key points of comparison for evaluating the efficacy of the proposed stormwater management strategy in meeting regulatory requirements. These points of comparison are located where the future stormwater infrastructure will discharge, such that changes in land use and drainage area of the DMAs can be explicitly accounted for in the hydrologic modeling. The two DMAs, informally labeled DA W and DA E, are delineated and labeled in **Figure 2-2**. DMA W drains to Sand Creek, while DMA E drains to San Jose Ave on the southeastern corner of the property.

The entirety of the Project area that will be disturbed is included in one of the two DMAs. However, there are several areas along the property boundary that will not be impacted by development and will not drain to the proposed stormwater infrastructure. Most notably, the portion of the property between the western property boundary and the western edge of DMA W currently flows to the adjacent shallow valley and drains northward into Sand Creek (**Figure 2-2**). This area will be preserved as open space, and its stormwater runoff will discharge to Sand Creek through an existing outfall. Similarly, the current submittal does not include development of the proposed park area, which drains northward into Sand Creek (**Figure 2-2**). Since the land use of these areas will not be modified, nor will they drain into any subdivision stormwater facilities, they are considered self-treating and not included in the detailed drainage analyses or hydraulic and hydrologic modeling presented herein.

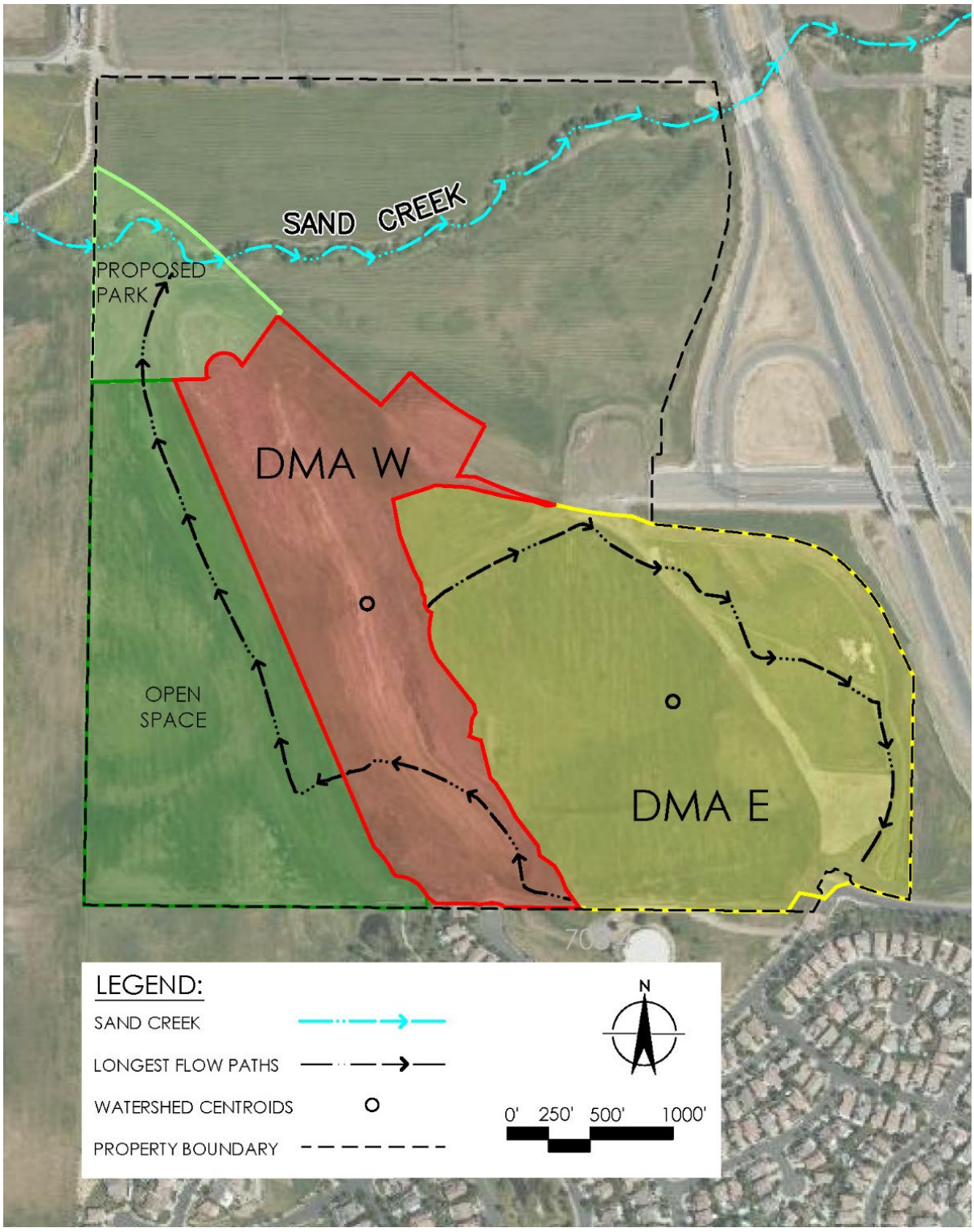


Figure 2-2 Pre-project drainage management areas (DMAs)

Table 2-1 summarizes key physical characteristics of each of the DMAs and self-treating areas, which total approximately 93 acres.

Table 2-1 Characteristics of the pre-project DMAs and ultimate post-project DMAs

		Pre-project		Post-project	
	Drains to	Area (acres)	Zoning	Area (acres)	Zoning
DMA					
DMA W	Sand Creek	23.03	Open Space	24.92	R-6
DMA E	San Jose Ave storm drain	38.72	Open Space	36.83	R-6
Total		61.75		61.75	
Self-Treating Areas					
Land-1	Sand Creek	24.88	Open Space	24.88	Open Space
Land-2	Sand Creek	6.00	Open Space	6.00	Open Space
Total		30.88		30.88	

2.4.2 Post-project Drainage Management Areas and Points of Connection

The Project proposes to modify the two existing pre-project watersheds such that existing connection points will be generally maintained, while stormwater facilities fully mitigate potential changes in water quality, flow-duration, and peak flood flows.

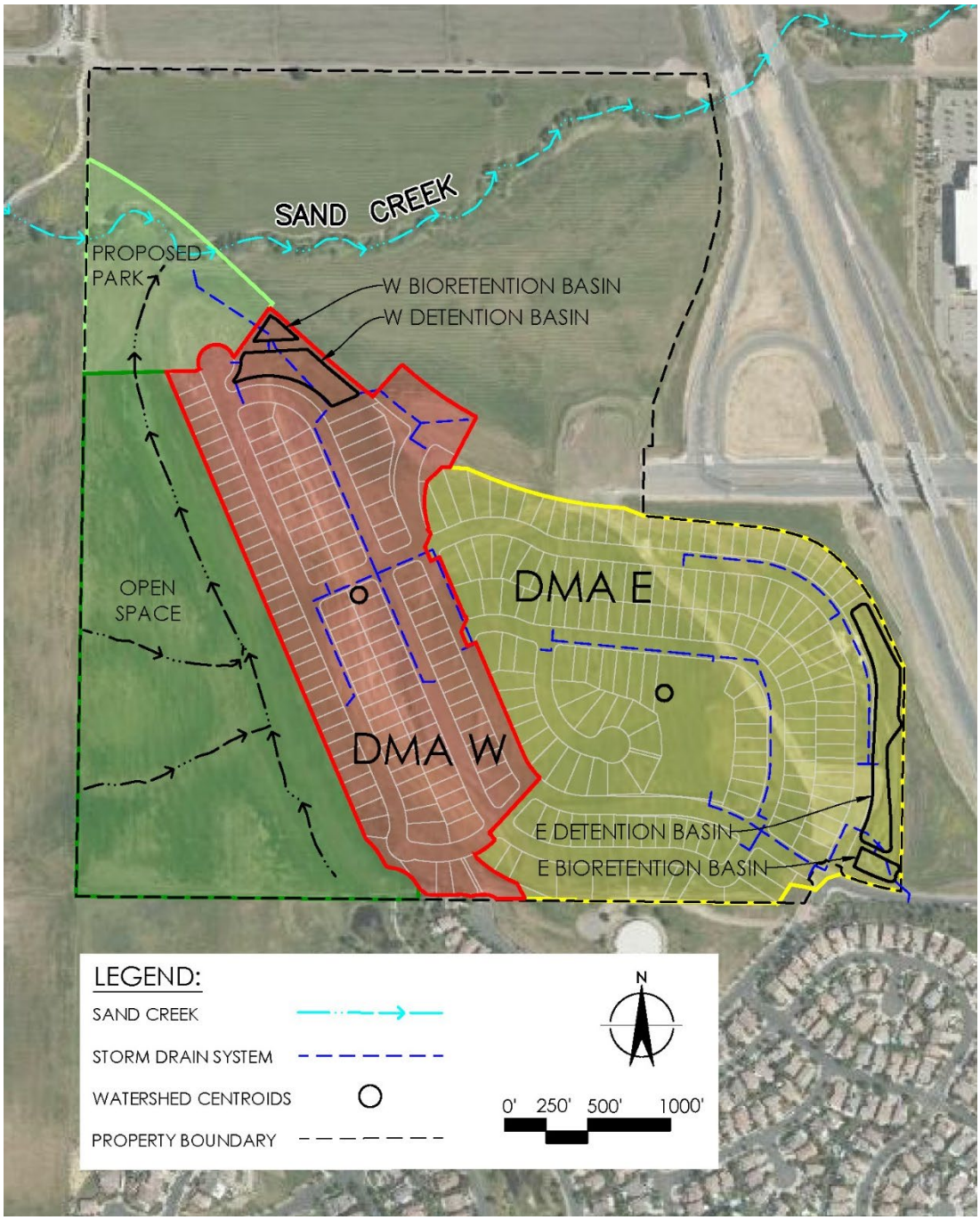


Figure 2-3 Ultimate development post-project drainage management Areas (DMAs)

Ultimate Development Post-Project Drainage Management Areas

Figure 2-3 shows the DMAs for the post-project condition. At the macro scale, the overall combined watershed area within the Project will remain the same.

As in pre-project conditions, DMA W will drain to Sand Creek, while DMA E will drain to San Jose Avenue. DMA W will drain to a detention basin and bioretention basin then to the existing outfall in Sand Creek. DMA E will drain to a detention basin and bioretention basin that will be connected to the existing storm drain line at San Jose Avenue.

The following list describes the proposed Project's drainage management areas (DMA's) and integrated management practices (IMPs), or stormwater facilities. The watershed areas and characteristics for the DMA's are outlined in **Table 2-1** and illustrated in **Figure 2-3**.

There are several notable aspects of the post-project DMAs, including:

- *DMA W*. DMA W will increase slightly in size from 23.0 acres in the pre-project condition to 24.9 acres, with the gain coming exclusively from areas that formerly drained to San Jose Avenue as part of DMA E. DMA W will consist of high-density single-family residential homes and includes a stormwater facility (IMP W) that outfalls to Sand Creek.
- *DMA E*. DMA E will decrease slightly in size from 38.7 acres in the pre-project condition to 36.8 acres. DMA E will consist of high-density single-family residential homes, and includes a park features as well as a stormwater facility (IMP E) that connects to the existing storm drain system that flows east at San Jose Avenue.

2.5 Local and Regional Flood Hazards

Local and regional flood hazards play an important role in framing the stormwater management approach, particularly with respect to peak flow rates from large storm events. The entirety of the proposed development area is mapped in an Unshaded Zone X, defined as areas of minimal flood risk as mapped by the Federal Emergency Management Agency (FEMA) on the currently-effective Flood Insurance Rate Map (FEMA, 2009).[6] The extents of the 100-year floodplains for Sand Creek are shown in **Figure 2-3,** which illustrates how the development footprint avoids encroachment into the Zone A and Zone AE Special Flood Hazard Areas ("SFHAs") associated with the Sand Creek floodplain.

[6] FIRM Panels 06013C0335F and 06013C0353F, both with publication dates of June 16, 2009.

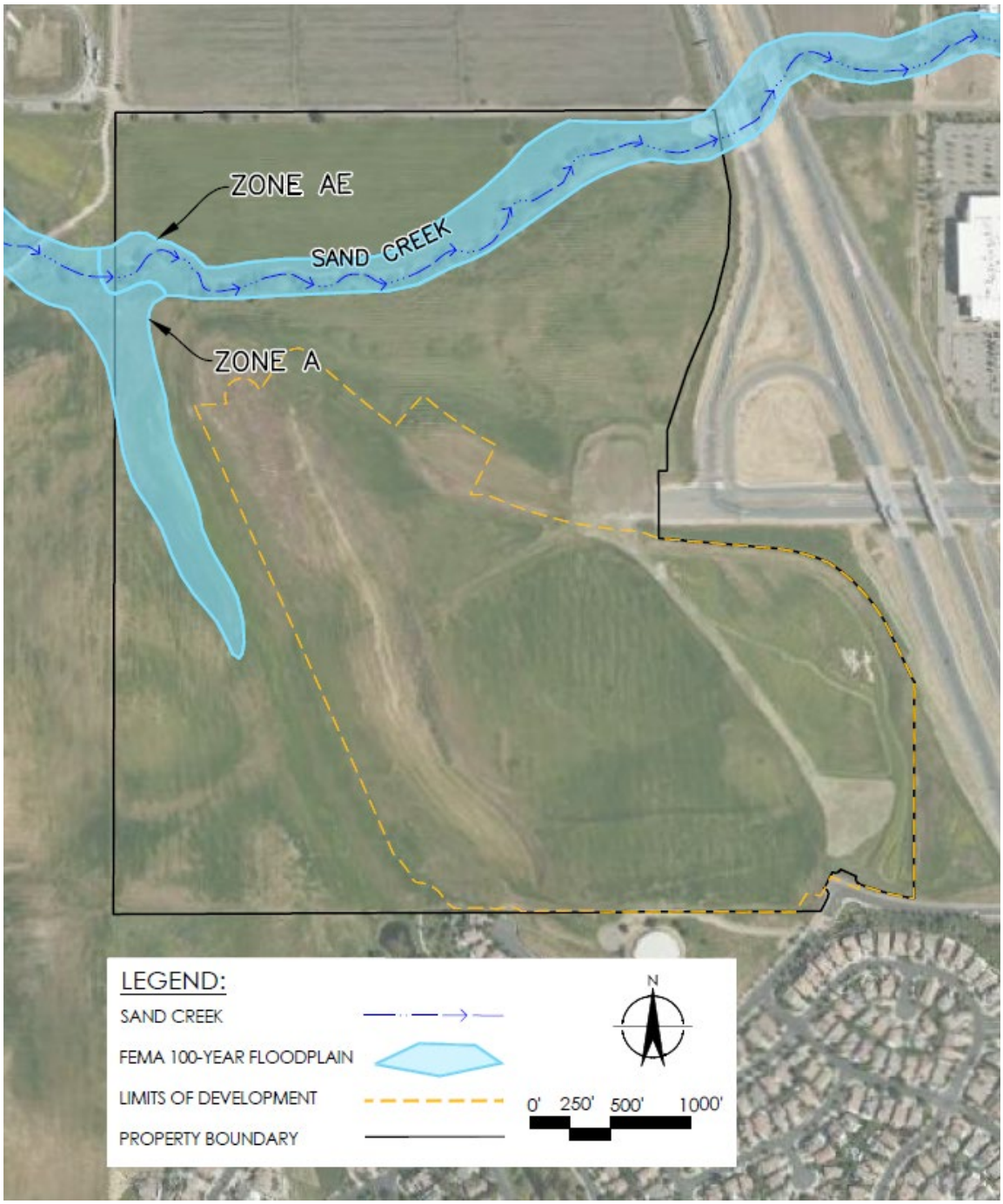


Figure 2-4 Mapped FEMA flood hazard zones along Sand Creek adjacent to the Project site.

2.6 Opportunities and Constraints for Stormwater Control

2.6.1 Stormwater Management Constraints

The most important constraint with respect to stormwater management is as follows:

- The Project is constrained by limited infiltration opportunities due to the relatively impermeable underlying HSG C soils. As such, infiltration basins or groundwater recharge features are not viable options for this site. Instead, on-site stormwater runoff will pass through bioretention areas before being discharged to Sand Creek and the existing storm drain line at San Jose Avenue.

2.6.2 Stormwater Management Opportunities

The most important opportunities with respect to stormwater management include:

- An outfall at Sand Creek was constructed in 2006 and is available to the Project. The Project can take advantage this existing outfall and use it as the discharge point to Sand Creek from the DMA W IMPs. Similarly, the Project can connect to the existing off-site storm drain line at San Jose Avenue and discharge runoff from the DMA E IMPs to the existing storm drain system.
- The existing elevation difference across the site creates sufficient hydraulic head and allow for a stepped two-bay basin design wherein a detention basin meters out flow to a connected bioretention basin.

3 LOW IMPACT DEVELOPMENT DESIGN STRATEGIES

3.1 Optimization of Site Layout

3.1.1 Limitation of Development Envelope

The Project footprint has been designed to limit disturbance to the area. As such, the shallow valley on the western edge of the property, which totals 30.9 acres including the preserved open space area and proposed park (**Figure 2-3**), will be preserved as undeveloped pervious area.

3.1.2 Preservation of Natural Drainage Features

Within the extent of development, existing surficial drainage features will not be preserved. However, the existing drainage patterns will be maintained: the western and eastern sides of the Project will continue to drain to Sand Creek and San Jose Avenue, respectively. Additionally, Sand Creek will not be disturbed. As mentioned above, the western valley beyond the development extents will be preserved as open space, and as such, the existing drainage path through the valley to Sand Creek will be preserved (**Figure 2-3**).

3.1.3 Setbacks from Creeks, Wetlands, and Riparian Habitats

Sand Creek is provided a 75-foot easement where it crosses the property boundary. Additionally, the aforementioned preserved open space region contains a 15-foot wide City of Brentwood water easement and a 70-foot wide PG&E easement.

3.1.4 Minimization of Imperviousness

As mentioned above, the project will preserve the western valley in the property as open space and park area, which totals 30.9 acres (**Figure 2-3**). Additionally, the Project layout includes a park within the footprint of development. Bioretention basins have been designed to treat all runoff from impervious surfaces (up to the 2-year storm) before being discharged to Sand Creek or the storm drain at San Jose Ave.

3.1.5 Use of Drainage as a Design Element

Two bioretention basins will be included within the footprint of development to mitigate for the impacts of impervious areas.

3.2 Use of Permeable Pavements

The Project is limited by the underlying HSG C soils, which are characterized by limited infiltration rates. In order to use permeable pavements, a prohibitively deep gravel base course would be required. Therefore, permeable pavement is not proposed in the Project site design.

3.3 Dispersal of Runoff to Pervious Areas

All runoff from proposed impervious surfaces in the Project up to the 2-year storm event will drain to bioretention areas via a gravity-flow storm drains system before being discharged to either Sand Creek or the San Jose Avenue storm drain.

3.4 Bioretention or other Integrated Management Practices

The proposed stormwater facilities for the Project are a cistern + bioretention facility for each of the two DMA's. This cistern + bioretention configuration meters flow from an upstream detention basin into a bioretention basin, thereby serving as a bioretention facility augmented with additional storage. IMP W and IMP E refer to the cistern + bioretention configuration as a whole. All runoff from the developed portion of this site (DMA W and DMA E) will drain to a cistern + bioretention facility.

4 DOCUMENTATION OF DRAINAGE DESIGN

4.1 Descriptions of Each Drainage Management Area

The Project is divided into two DMAs, DMA W and DMA E. Each DMA will be graded such that all runoff in each DMA flows to a common outlet, in this case a cistern + bioretention facility. The treated runoff will be conveyed off-site to Sand Creek and San Jose Avenue. The proposed DMAs and stormwater facilities are shown in **Figure 2-3**. In addition, two self-treating pervious areas, Land-1 and Land-2, are located beyond the footprint of development and do not drain to the proposed stormwater facilities. The area breakdowns[7] for each of the DMAs and self-treating areas are tabled in **Table 4-1**.

Table 4-1 Drainage Management Areas

		Impervious Area		Pervious Area		Total Area	
	Drains to	sq. feet	acres	sq. feet	acres	sq. feet	acres
DMA							
DMA W	Sand Creek	664,329	15.3	421,405	9.7	1,085,734	24.9
DMA E	San Jose Ave storm drain	783,105	18.0	821,056	18.8	1,604,161	36.8
Self-Treating Areas							
Land-1	Sand Creek	0	0.0	1,083,620	24.9	1,083,620	24.9
Land-2	Sand Creek	0	0.0	261,452	6.0	261,452	6.0
					Total	4,034,967	92.6

4.1.1 Drainage Management Area Descriptions

DMA W, totaling 1,085,734 square feet (24.9 acres), includes 126 single-family houses and associated in-tract roads. DMA W drains to IMP W, a cistern + bioretention facility, via surface drainage and gravity-flow storm drain pipes. IMP W drains to an existing outfall at Sand Creek.

[7] The pervious area listed for the DMAs includes the footprint of each cistern + bioretention facility. However, the pervious area listed in the **Appendix B** does not include the footprint of the stormwater facilities, per CCCWD guidance.

DMA E, totaling 1,604,161 square feet (36.8 acres), includes 166 single-family houses and associated in-tract roads, as well as a park. DMA W drains to IMP E, a cistern + bioretention facility, via surface drainage and gravity-flow storm drain pipes. IMP E drains to the storm drain system at San Jose Avenue.

4.1.2 Self-Treating Area Descriptions

Land-1, totaling 1,083,620 square feet, represents the region of preserved open space along the western side of the project (**Figure 2-3**). The region is self-treating and drains directly to Sand Creek via an existing surface drainage path.

Land-2, totaling 261,452 square feet, represents a proposed park on the western side of the project (**Figure 2-3**). The region is self-treating and drains directly to Sand Creek as in pre-project conditions.

4.2 Integrated Management Practices

4.2.1 Information Summary for Cistern + Bioretention Facility Design

The proposed cistern + bioretention facilities were designed to meet the requirements outlined in the C.3 Guidebook and the Flood Control's Detention Basin Guidelines (CCCWP, 2017; CCCFC, 1991). See **Figure 2-3** for the location of the IMPs.

To meet design objectives and size constraints, IMP W and E both use the "cistern + bioretention" configuration and were sized in the IMP Calculator as such. This arrangement essentially represents a two-basin configuration with an upstream detention basin separated from a downstream bioretention basin. Runoff is routed to the detention basin first and is released in a controlled manner through an orifice sized by the IMP Calculator to the bioretention basin for water-quality treatment through the biosoil media. The detention basin is designed to detain the volume of storage necessary to satisfy hydromodification management requirements as well as peak flow requirements, while the bioretention basin satisfies water quality requirements. This two-basin configuration minimizes the area of biosoil required, while still mitigating peak flows and meeting water quality and hydromodification requirements.

The proposed detention basins of each cistern + bioretention facility have been designed to the criteria listed in Detention Basin Guidelines (CCCFC, 1991), including the following features and details:

- The total storage volume of the detention basins (4.634 acre-feet for IMP W and 4.589 for IMP E) exceeds the value calculated by the IMP Calculator (**Appendix B**). The additional storage volume provides peak flow mitigation.

- The detention basin bottom elevations are 155 feet and 145 feet for IMP W and IMP E, respectively.

- An overflow riser structure in both detention basins allows runoff to bypass the bioretention basins when storm volumes exceed the required water quality treatment volume. The overflow structure for IMP W has a 2.5-foot diameter orifice placed at 157.5 feet (2.5 feet above the bottom of the basin). The overflow structure for IMP E has a 3-foot diameter orifice placed at 147.5 feet (2.5 feet above the bottom of the basin). The height and diameter of the riser structures have been designed to mitigate post-project peak flows to pre-project levels while still providing 2 feet of freeboard during the 100-year storm event.

- The outlet pipe from the detention basin routes runoff to the bioretention basin for water quality treatment. This pipe is located on the bottom of the detention basin and its orifice has been sized by the IMP calculator. The orifice plate diameters for the IMP W and IMP E outlets are 3.7 and 4.5 inches, respectively.

The proposed bioretention basins have been designed to the criteria presented in the C.3 Guidebook (CCCWP, 2017) and summarized in **Figure 4-1**, including the following features:

- The area of the top of soil layers for each bioretention basin (5,830 square feet for IMP W and 8,554 square feet for IMP E) satisfies the required area calculated by the IMP Calculator (**Appendix B**).

- The top of soil elevations are 154 feet and 144 feet for IMP W and IMP E, respectively.

- Runoff is filtered through the 18 inches of soil mix and 12 inches of Class 2 permeable gravel, where it is held until it infiltrates into the ground. Once the gravel layer is saturated, an underdrain at the top of gravel layer conveys the excess treated runoff to Sand Creek and the San Jose Avenue storm drain line for IMP W and IMP E, respectively.

- A drop inlet in both bioretention basins allow runoff to bypass treatment and flow to Sand Creek or the San Jose Avenue storm drain once ponding reaches a

depth of 1 foot. The respective elevations of the 2-foot diameter overflow inlets for IMP W and IMP E are 155 feet and 145 feet (1 foot above the top of soil layer).

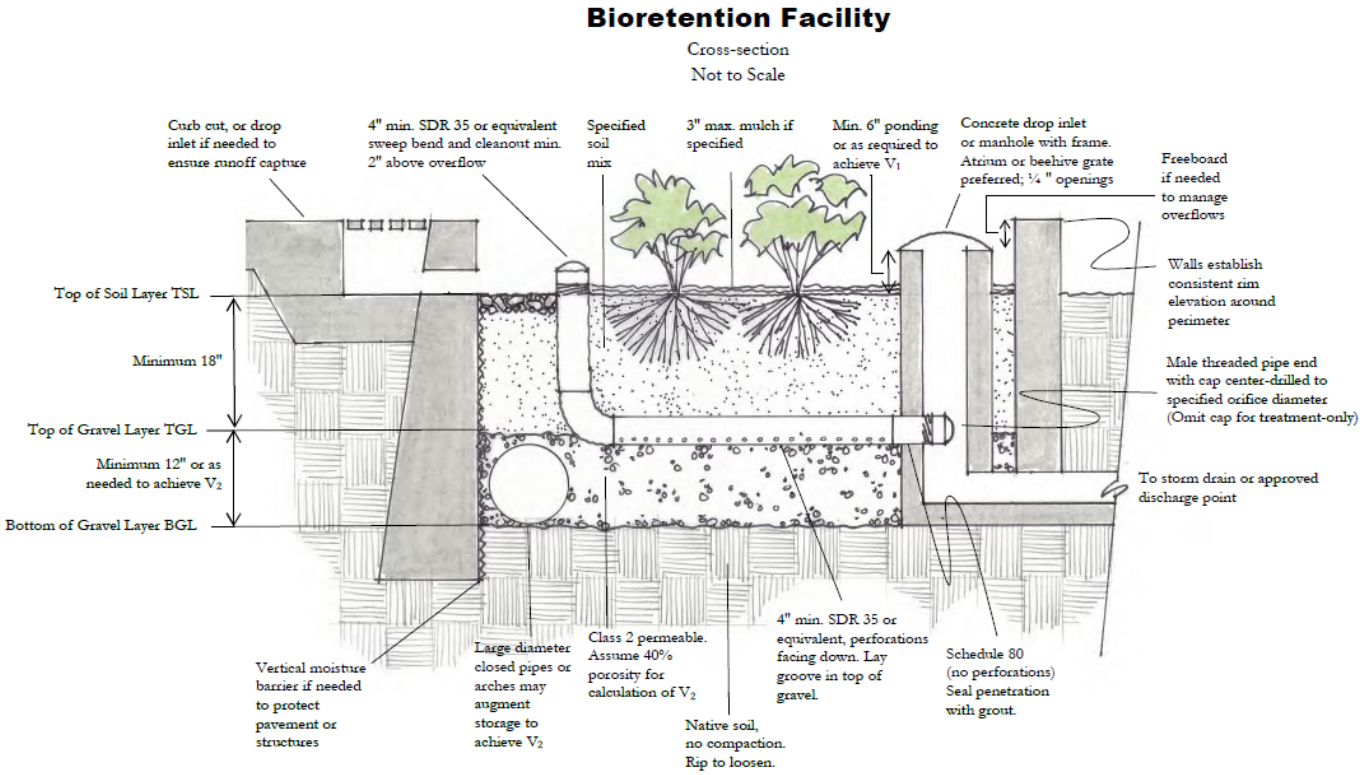


Figure 4-1 Typical bioretention facility cross-section, sourced from the C.3 Guidebook (CCCWP, 2017).

4.2.2 Tabulation and Sizing Calculations

The proposed IMPs were sized using the Contra Costa Clean Water Program IMP Sizing Calculator. See **Appendix B** for the IMP Calculator output and proposed facility sizing. The proposed bioretention footprints include only the flat top of soil area of the bioretention facilities and do not include any side slopes. See **Section 5** below for more detail on the sizing of the detention basins and the efficacy of the facilities.

As previously mentioned, Sand Creek west of Highway 4 is a natural, unimproved channel that is subject to hydromodification requirements. Therefore, any detained flow in DMA W requires HM control. However, Sand Creek transitions into an engineered channel a few blocks east of Highway 4 and is exempt from hydromodification requirements. Since

DMA E outfalls to the San Jose Avenue storm drain system on the southeastern edge of the Project, which drains to the Marsh Creek watershed in this hardened area, DMA E is not subject to hydromodification standards. Despite this distinction, both IMP W and IMP E have been sized in the IMP Calculator for treatment and flow control, which provides additional protection to downstream waters.

5 HYDROLOGIC MODELING

Sizing of the stormwater management facility features was accomplished through an iterative set of hydrologic model builds and runs. Initial sizing of the facilities for each DMA was completed using the IMP Calculator as described above. These initial IMP Calculator results were then used as the starting point of basin sizing for peak flow considerations. In order to demonstrate compliance with peak flow requirements, a hydrologic model comparing pre- and post-project conditions was developed using the Army Corps of Engineers HEC-HMS platform (version 4.8).

The use of both HEC-HMS and the IMP Sizing Calculator allowed for separate assessment of compliance with various criteria. While the IMP Sizing Calculator was used to size the proposed stormwater facilities for water quality and hydromodification compliance, modeling of peak flow mitigation was carried out using HEC-HMS, strictly following modeling guidance from Flood Control (CCCFC, 2018; CCCFC, 2011).

Both a pre-project and a post-project model scenario were developed in HEC-HMS in order to compare peak flows for each scenario. The pre-project model represents the existing site conditions and establishes a benchmark of peak flows on the Project site. The post-project model scenario represents the proposed conditions as shown in vesting tentative map for the Project and illustrates the effects of detention storage on controlling peak flow rates for large storm events.

As described previously, two points of comparison were used for pre- and post-project conditions: flows to Sand Creek and flows to San Jose Avenue. The use of these points of comparison allows for a direct assessment of the efficacy of the proposed peak flow control measures.

5.1 Hydrologic Parameters

Hydrologic input parameters for the Project DMAs were compiled from site topography and preliminary project plans provided by Apex Civil Engineering & Land Surveying as well as recommendations from the County's HEC-HMS Guidance document. The input parameters are summarized in **Table 5-1** and **Table 5-2**.

Table 5-2 Pre-project hydrologic modeling parameters for the Project DMAs.

Pre-project Shed	Area (sq miles)	Infiltration (in/hr)	N	L (miles)	Lc (miles)	Elevation High (feet)	Elevation Low (feet)	Slope (ft/mile)	Lag Time (hours)	Lag Time minutes)
DMA W	0.0360	0.17	0.08	0.548	0.253	223	140	151	0.327	19.6
DMA E	0.0605	0.17	0.08	0.434	0.186	223	131	212	0.250	15.0
Total	0.0965									

Table 5-1 Post-project hydrologic modeling parameters for the Project DMAs.

Post-project Shed	Area (sq miles)	Infiltration (in/hr)	N	L (miles)	Lc (miles)	Elevation High (feet)	Elevation Low (feet)	Slope (ft/mile)	Lag Time (hours)	Lag Time minutes)
DMA W	0.0389	0.06	0.031	0.293	0.192	180	156	82	0.108	6.5
DMA E	0.0575	0.08	0.029	0.377	0.286	181	145	95	0.126	7.5
Total	0.0965									

Model parameterization followed Flood Control guidelines throughout, with the following additional observations:

- *Mean annual precipitation ("MAP")*. Reference mean annual precipitation (MAP) was averaged over the project site from the isohyetal mapping prepared by Flood Control (CCCFC, 2010). MAP at the Project site is approximately 13 inches. Rainfall depths, shown in **Table 5-3**, were calculated using the method described in County HEC-HMS guidance (CCCFC, 2018).
- *Loss rate*. Precipitation losses were accounted for using constant loss rates derived by percent impervious cover. Infiltration Rates were determined using the HYDRO-6 Program Parameters (CCCFC, 2011).
    - Loss (or infiltration) for pre-project open space cover was assumed to be 0.17 inches per hour (CCCFC, 2011, Table 1).
    - Infiltration for post-project residential cover was assumed to be 0.06 inches per hour for DMA W and 0.07 inches per hour for DMA E (CCCFC, 2011, Table 1; CCCDC, 2005, Table 3-4 and 3-5). The overall infiltration rate for each DMA is an area-weighted infiltration rate that accounts for parks (where applicable) and the stormwater facility footprints (considered

pervious cover). See **Table 5-1** and **Table 5-2** for the calculated infiltration rates.

- *Lag time*. Lag time calculations followed Flood Control protocols using longest flow path, flow path length from the DMA centroid, overall slope, and channel N-values. N-values were determined using the HYDRO-6 Program Parameters, namely Table 2 (for pre-project conditions) and Figure 1 (for post-project conditions) (CCCFC, 2011). See **Table 5-1** and **Table 5-2** for selected n-values and calculated lag times.

- *Design storms*. To assess the function of the stormwater facilities for various rainfall events, a suite of model runs were completed for both pre-project and post-project conditions. The 10-, 25-, and 100-year design storm events were used, with storm durations of 3-, 6-, 12-, and 24-hour for each. Rainfall depth was calculated following Flood Control guidance, as shown in **Table 5-3**.

- *Two-basin configuration*. Both the detention basin and bioretention basin components of the two-basin IMP configuration were explicitly modeled in HEC-HMS. This was accomplished by routing runoff from the DMA subbasins to the detention basin storage reservoirs, which were equipped with two outlets: an overflow structure with an auxiliary connection to either Sand Creek or San Jose Ave, and an outlet pipe connected to the downstream bioretention basin. Both outlets were sized following the parameters listed in **Section 4-2**. The bioretention basins were modeled with one outlet representing the overflow inlet. Similar to the detention basin, the overflow outlet was modeled following the sizing presented in **Section 4-2**. The underdrain at the top of gravel layer of the bioretention basin that conveys excess treated runoff was not included in the model in order to simulate a scenario in which the underdrain is clogged or otherwise not functioning. Additionally, the storage of the permeable drain rock layer and soil mix layer were not considered—only the detention basin storage and "open air" bioretention basin storage were modeled. These choices conservatively underestimate the storage volume of the bioretention basins.

Table 5-3 Rainfall depths used in HEC-HMS model.

	Factor C1			Factor C2			Rainfall Depth (inches)		
Duration	10-year	25-year	100-year	10-year	25-year	100-year	10-year	25-year	100-year
3-hour	0.434	0.492	0.620	0.052	0.061	0.076	1.10	1.28	1.61
6-hour	0.520	0.584	0.760	0.076	0.092	0.112	1.51	1.77	2.22
12-hour	0.588	0.680	0.888	0.111	0.132	0.163	2.03	2.40	3.01
24-hour	0.636	0.736	0.968	0.158	0.188	0.235	2.70	3.19	4.03

5.2 Hydrologic Modeling Results

The HEC-HMS modeling results for the pre- and post-project DMAs for the two points of connection impacted by development (flows to Sand Creek and flows to San Jose Avenue) are summarized in **Table 5-4** and **Table 5-5**.

Table 5-4 Pre- and post-project peak flow rates to Sand Creek

	Peak flows to Sand Creek (cfs)											
	10-year				25-year				100-year			
	3-hour	6-hour	12-hour	24-hour	3-hour	6-hour	12-hour	24-hour	3-hour	6-hour	12-hour	24-hour
Pre-project	11.4	7.7	6.8	10.1	14.7	13.2	10.9	14.3	19.9	18.1	17.1	21.9
Post-project	0.6	0.7	1.8	1.8	0.7	7.0	6.3	7.3	13.4	17.1	15.9	18.1

Table 5-5 Pre- and post-project peak flow rates to San Jose Ave.

	Peak flows to San Jose Ave (cfs)											
	10-year				25-year				100-year			
	3-hour	6-hour	12-hour	24-hour	3-hour	6-hour	12-hour	24-hour	3-hour	6-hour	12-hour	24-hour
Pre-project	23.7	17.0	12.1	21.2	29.7	27.1	21.7	28.7	39.8	36.3	35.5	42.1
Post-project	5.3	10.6	7.0	9.4	18.0	21.1	17.3	18.2	33.3	33.9	31.6	34.4

For every design storm, post-project peak flows to both Sand Creek and the existing storm drain system at San Jose Avenue are substantially reduced below pre-project flows (**Table 5-4** and **Table 5-5**). In addition, all detention basins maintain a minimum of 2 feet of freeboard for storm event modeled (**Table 5-6**), per Flood Control requirements. This result reflects the large storage capacity included in each stormwater basin, which can be optimized to give exceptional peak flow control for large design storms.

Table 5-6 Water surface elevation and freeboard for the detention basins.

100-yr Event Storm Duration	W Basin		E Basin	
	Max. WSE	Freeboard	Max. WSE	Freeboard
3-hour	157.7	2.3	148.0	2.0
6-hour	157.8	2.2	148.0	2.0
12-hour	157.7	2.3	148.0	2.0
24-hour	157.8	2.2	148.0	2.0

6 SOURCE CONTROL MEASURES

6.1 Site Activities and Potential Sources of Pollutants

On-site activities or features that could produce or convey stormwater pollutants include storm drain inlets, pest control, landscape maintenance, and refuse areas. Anticipated potential sources of runoff pollutants and recommended source control BMPs are listed in **Table 6-1**.

Table 6-1 Source Control Table

Potential Source of Runoff Pollutants	Permanent Source Control BMPs	Operational Source Control BMPs
On-site storm drain inlets	Mark all inlets with the words "No Dumping! Drains to Bay" or similar	• Maintain and periodically repaint or replace inlet markings • Distribute stormwater pollution prevention into to Owner
Landscape/Outdoor Pesticide Use/Building and Grounds Maintenance	• "Developer-installed landscaping will minimize irrigation and runoff and be selected for pest resistance, and will minimize the need for fertilizers and pesticides. Plants will be selected appropriate to site soils, slopes, climate, sun wind, rain, land use, air movement, ecological consistency and plant interactions" • Design landscaping to minimize irrigation and	• Integrated Pest Management information will be provided to new homeowners • Provide IPM information to new Owner • Maintain landscaping using minimum or no pesticides

	runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution • Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions • Consider using pest-resistant plants, especially adjacent to hardscape	
Indoor and structural pest control	New construction minimizes potential for pest entry	IPM information will be provided to new homeowners
Vehicle washing	Driveways and parking areas will drain to bioretention areas	Distribute stormwater pollution prevention to owner
Refuse areas	• Signs will be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar • Provide adequate number of covered receptacles.	• Inspect receptacles on a regular basis and replace or repair leaky receptacles • Inspect and pick up litter daily and clean up spills immediately

7 STORMWATER FACILITY MAINTENANCE

7.1 Ownership and Responsibility for Maintenance in Perpetuity

The applicant commits to execute any necessary agreements and/or annex into a fee mechanism in accordance with local requirements. The applicant will accept responsibility for operation and maintenance of facilities until that responsibility is formally transferred. Storm water treatment and flow-control facilities described in this report will be owned and maintained in perpetuity by the owner of the subject property. The applicant will accept responsibility for interim operation and maintenance of the facilities until such time as this responsibility is formally transferred to subsequent owners.

7.2 Summary of Maintenance Requirements for Each Stormwater Facility

Routine maintenance of the stormwater facilities is needed to ensure that flow is unobstructed, that erosion is prevented, and that soils in the bioretention basins are held together by plant roots and are biologically active.

The two stormwater facilities will be maintained on the following schedule at a minimum. Details of maintenance responsibilities and procedures will be included in an Operations and Maintenance (O&M) Plan to be submitted for approval as required in the conditions of approval.

- Maintain vegetation and the irrigation system of the bioretention basin. Prune and weed, as needed. At no time will synthetic pesticides or fertilizers be applied, nor will any soil amendments, other than aged compost mulch or sand/compost mix, be introduced.
- On a monthly basis, remove obstructions, debris, accumulated sediment, and debris from the detention basins and bioretention basins and inspect for graffiti or vandalism.
- On a biannual basis (pre- and post-wet season) evaluate the health of plants in the bioretention basins, remove and replace any dead or diseased vegetation, and ensure that the growth and spread of vegetation does not block inlets or the movement of runoff. Till or replace soil using specified biotreatment soil mixtures as needed to maintain the design elevation of the top of soil layer.
- Before and after the wet season, and monthly during the wet season, conduct inspections to ensure proper functioning of the basins. Inspect bioretention area

for ponded water and replace surface soils with biotreatment soil if the ponded water does not drain within 72 hours. Replace mulch if erosion is evident. Clear any obstructions and remove any accumulation of sediment in the bioretention and detention basins. Report observations of mosquito larvae to the Contra Costa County Mosquito and Vector Control District at (925) 685-9301.

- After significant rain events (defined as a half-inch or more of rainfall in a 24-hour period), inspect the detention basins and bioretention basin inlets and remove any accumulation of trash or debris. Inspect the bioretention basin for ponded water and for movement of material on the surface of the mulch layer, and replace mulch and rake smooth if needed.

8 CONSTUCTION PLAN C.3 CHECKLIST

Stormwater Control Plan Page #	BMP Description	See Plan Sheet #s
Section 4.1 and **Appendix C**	Runoff from roof, pavement, and graded areas drains to stormwater facilities.	
Section 4.2 and **Appendix C**	Bioretention facilities are constructed per criteria in the C.3 Guidebook and parameters provided in this document.	

9 CERTIFICATIONS

The selection, sizing, and preliminary design of stormwater treatment and other control measure in this plan meet the requirements of Regional Water Quality Control Board Order R2-2015-0049.

10 REFERENCES

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CCCFC, Contra Costa County Flood Control & Water Conservation District, 2018, HEC-HMS Guidance.

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CCCWP, Contra Costa Clean Water Program, 2017, Stormwater C.3 Guidebook, 7th Edition.

CVRWCB, Central Valley Regional Water Quality Control Board, 2010, East Contra Costa County Municipal NPDES, Order No. R5-2010-0102, NPDES Permit No. CAS083313, effective September 23, 2010, accessed August 12, 2020 at https://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

FEMA, Federal Emergency Management Administration, 2009, Flood Insurance Rate Map (FIRM) Panels 06013C0335F and 06013C0353F.

SFBRWQCB, San Francisco Bay Regional Water Quality Control Board, 2015, Municipal Regional Stormwater NPDES Permit (MRP), Order No. R2-2015-0049, NPDES Permit No. CAS623008, effective November 19, 2015, 350 p., accessed August 12, 2020 at https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/Municipal/index.html.

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USDA, United States Department of Agriculture, Natural Resources Conservation Service Web Soil Survey, accessed October 26, 2021 at https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

USGS StreamStats, United States Geological Survey, 2019, StreamStats, Contra Costa County, CA, accessed August 10, 2020 at https://streamstats.usgs.gov/ss/.

APPENDICES

APPENDIX A

Soil Report

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Contra Costa County, California

Bridle Gate Project



October 26, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:4,810 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Contra Costa County, California
Survey Area Data: Version 18, Sep 9, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 23, 2019—Apr 29, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AbD	Altamont clay, 9 to 15 percent slopes, MLRA 15	18.1	29.3%
AbE	Altamont clay, 15 to 30 percent slopes, MLRA 15	35.0	56.7%
Bb	Brentwood clay loam	0.2	0.3%
CaA	Capay clay, 0 to 3 percent slopes, MLRA 17	8.5	13.8%
Totals for Area of Interest		**61.7**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate

pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Contra Costa County, California

AbD—Altamont clay, 9 to 15 percent slopes, MLRA 15

Map Unit Setting

National map unit symbol: 2w62c
Elevation: 0 to 1,210 feet
Mean annual precipitation: 13 to 24 inches
Mean annual air temperature: 58 to 61 degrees F
Frost-free period: 260 to 320 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Altamont and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Altamont

Setting

Landform: Hillslopes, mountain slopes
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from sandstone and shale

Typical profile

A - 0 to 14 inches: clay
Bss - 14 to 26 inches: clay
Bkss - 26 to 39 inches: clay
Bk - 39 to 48 inches: silty clay
Cr - 48 to 58 inches:

Properties and qualities

Slope: 9 to 15 percent
Depth to restrictive feature: 40 to 60 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Available water supply, 0 to 60 inches: Moderate (about 7.3 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: R015XD001CA - CLAYEY
Hydric soil rating: No

Minor Components

Capay

Percent of map unit: 6 percent

Landform: Depressions, drainageways
Down-slope shape: Concave, linear
Across-slope shape: Concave
Hydric soil rating: No

Fontana

Percent of map unit: 4 percent
Landform: Hillslopes, mountain slopes
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Rincon

Percent of map unit: 4 percent
Landform: Depressions, drainageways
Down-slope shape: Concave, linear
Across-slope shape: Concave
Hydric soil rating: No

Linne

Percent of map unit: 1 percent
Landform: Hillslopes, mountain slopes
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

AbE—Altamont clay, 15 to 30 percent slopes, MLRA 15

Map Unit Setting

National map unit symbol: 2w626
Elevation: 10 to 1,730 feet
Mean annual precipitation: 12 to 32 inches
Mean annual air temperature: 58 to 62 degrees F
Frost-free period: 260 to 320 days
Farmland classification: Not prime farmland

Map Unit Composition

Altamont and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Altamont

Setting

Landform: Hillslopes, mountain slopes
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from sandstone and shale

Typical profile

A - 0 to 14 inches: clay

Bss - 14 to 26 inches: clay
Bkss - 26 to 39 inches: clay
Bk - 39 to 48 inches: silty clay
Cr - 48 to 58 inches:

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: 40 to 60 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Available water supply, 0 to 60 inches: Moderate (about 7.3 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: R015XD001CA - CLAYEY
Hydric soil rating: No

Minor Components

Capay

Percent of map unit: 3 percent
Landform: Depressions, drainageways
Down-slope shape: Concave, linear
Across-slope shape: Concave
Hydric soil rating: No

Linne

Percent of map unit: 3 percent
Landform: Mountain slopes, hillslopes
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Rincon

Percent of map unit: 3 percent
Landform: Depressions, drainageways
Down-slope shape: Concave, linear
Across-slope shape: Concave
Hydric soil rating: No

Diablo

Percent of map unit: 3 percent
Landform: Hillslopes, mountain slopes
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Pescadero

Percent of map unit: 1 percent
Landform: Depressions, drainageways

Down-slope shape: Concave, convex
Across-slope shape: Concave
Hydric soil rating: Yes

Clear lake

Percent of map unit: 1 percent
Landform: Depressions, drainageways
Down-slope shape: Concave, linear
Across-slope shape: Concave
Hydric soil rating: Yes

Fontana

Percent of map unit: 1 percent
Landform: Hillslopes, mountain slopes
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Bb—Brentwood clay loam

Map Unit Setting

National map unit symbol: h985
Elevation: 40 to 200 feet
Mean annual precipitation: 12 to 15 inches
Mean annual air temperature: 61 degrees F
Frost-free period: 250 to 300 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Brentwood and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brentwood

Setting

Landform: Valleys, valley floors
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Concave, linear
Across-slope shape: Linear
Parent material: Alluvium derived from sedimentary rock

Typical profile

H1 - 0 to 18 inches: clay loam
H2 - 18 to 50 inches: clay loam
H3 - 50 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches

Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 2 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 11.4 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Sorrento

Percent of map unit: 10 percent
Hydric soil rating: No

Rincon

Percent of map unit: 5 percent
Hydric soil rating: No

CaA—Capay clay, 0 to 3 percent slopes, MLRA 17

Map Unit Setting

National map unit symbol: 2w8dm
Elevation: 30 to 330 feet
Mean annual precipitation: 13 to 18 inches
Mean annual air temperature: 60 to 62 degrees F
Frost-free period: 329 to 342 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Capay and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Capay

Setting

Landform: Alluvial fans, stream terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear, concave
Across-slope shape: Linear
Parent material: Clayey alluvium derived from metamorphic and sedimentary rock

Typical profile

Ap - 0 to 6 inches: clay
Bss1 - 6 to 15 inches: clay
Bss2 - 15 to 27 inches: clay
Bkss - 27 to 36 inches: clay
Bk1 - 36 to 51 inches: clay
Bk2 - 51 to 72 inches: silty clay loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: NoneRare
Frequency of ponding: Occasional
Calcium carbonate, maximum content: 1 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.5 to 3.0 mmhos/cm)
Sodium adsorption ratio, maximum: 15.0
Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Rincon

Percent of map unit: 7 percent
Hydric soil rating: No

Brentwood

Percent of map unit: 2 percent
Hydric soil rating: No

Marcuse

Percent of map unit: 1 percent
Landform: Depressions
Hydric soil rating: Yes

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Physical Properties

Soil Physical Properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

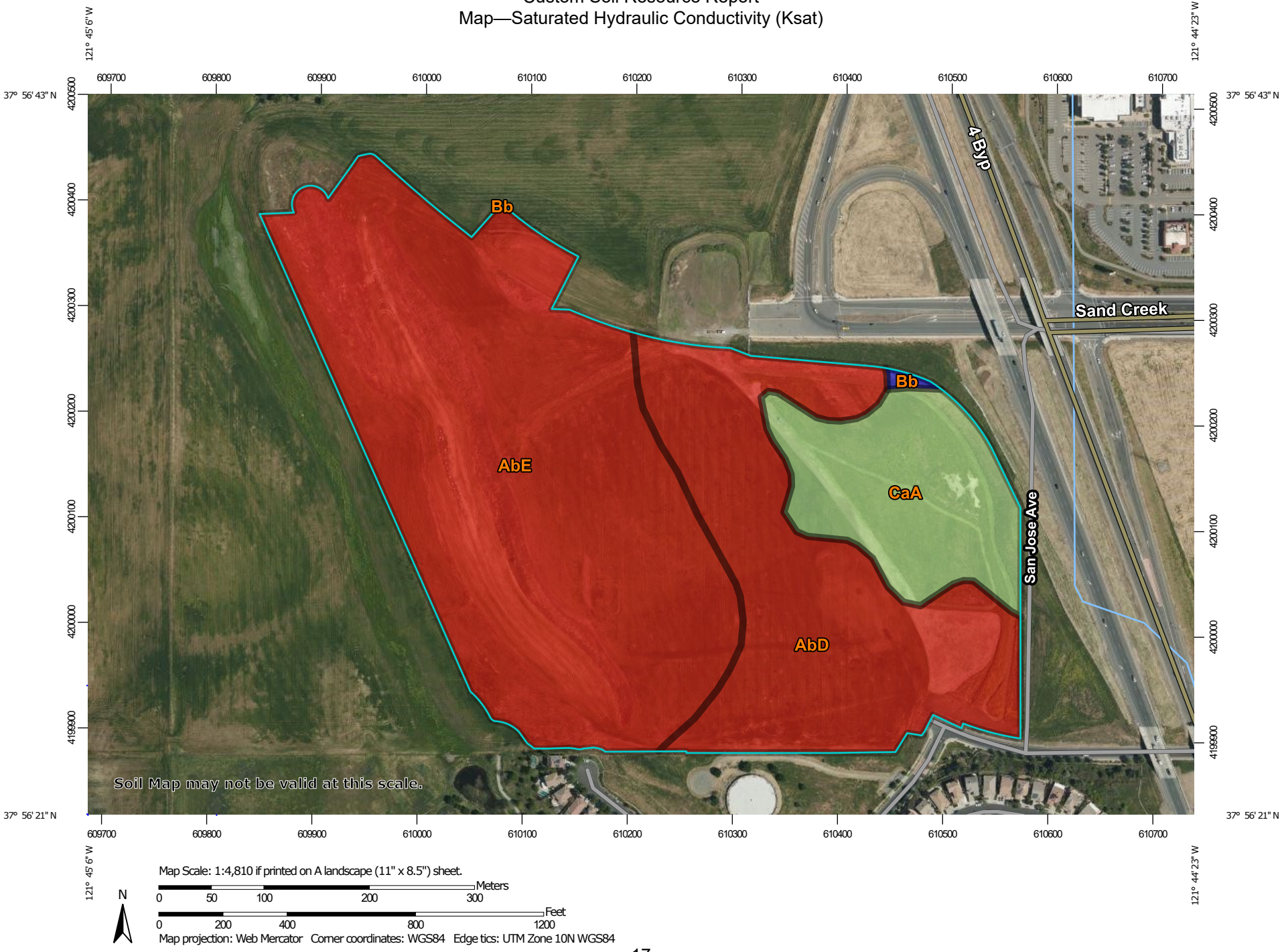
Saturated Hydraulic Conductivity (Ksat)

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity is considered in the design of soil drainage systems and septic tank absorption fields.

For each soil layer, this attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

The numeric Ksat values have been grouped according to standard Ksat class limits.

Map—Saturated Hydraulic Conductivity (Ksat)



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

<= 1.0000

> 1.0000 and <= 1.0574

> 1.0574 and <= 2.7000

Not rated or not available

Soil Rating Lines

<= 1.0000

> 1.0000 and <= 1.0574

> 1.0574 and <= 2.7000

Not rated or not available

Soil Rating Points

<= 1.0000

> 1.0000 and <= 1.0574

> 1.0574 and <= 2.7000

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Contra Costa County, California
Survey Area Data: Version 18, Sep 9, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 23, 2019—Apr 29, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Saturated Hydraulic Conductivity (Ksat)

Map unit symbol	Map unit name	Rating (micrometers per second)	Acres in AOI	Percent of AOI
AbD	Altamont clay, 9 to 15 percent slopes, MLRA 15	1.0000	18.1	29.3%
AbE	Altamont clay, 15 to 30 percent slopes, MLRA 15	1.0000	35.0	56.7%
Bb	Brentwood clay loam	2.7000	0.2	0.3%
CaA	Capay clay, 0 to 3 percent slopes, MLRA 17	1.0574	8.5	13.8%
Totals for Area of Interest			**61.7**	**100.0%**

Rating Options—Saturated Hydraulic Conductivity (Ksat)

Units of Measure: micrometers per second

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Fastest

Interpret Nulls as Zero: No

Layer Options (Horizon Aggregation Method): All Layers (Weighted Average)

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

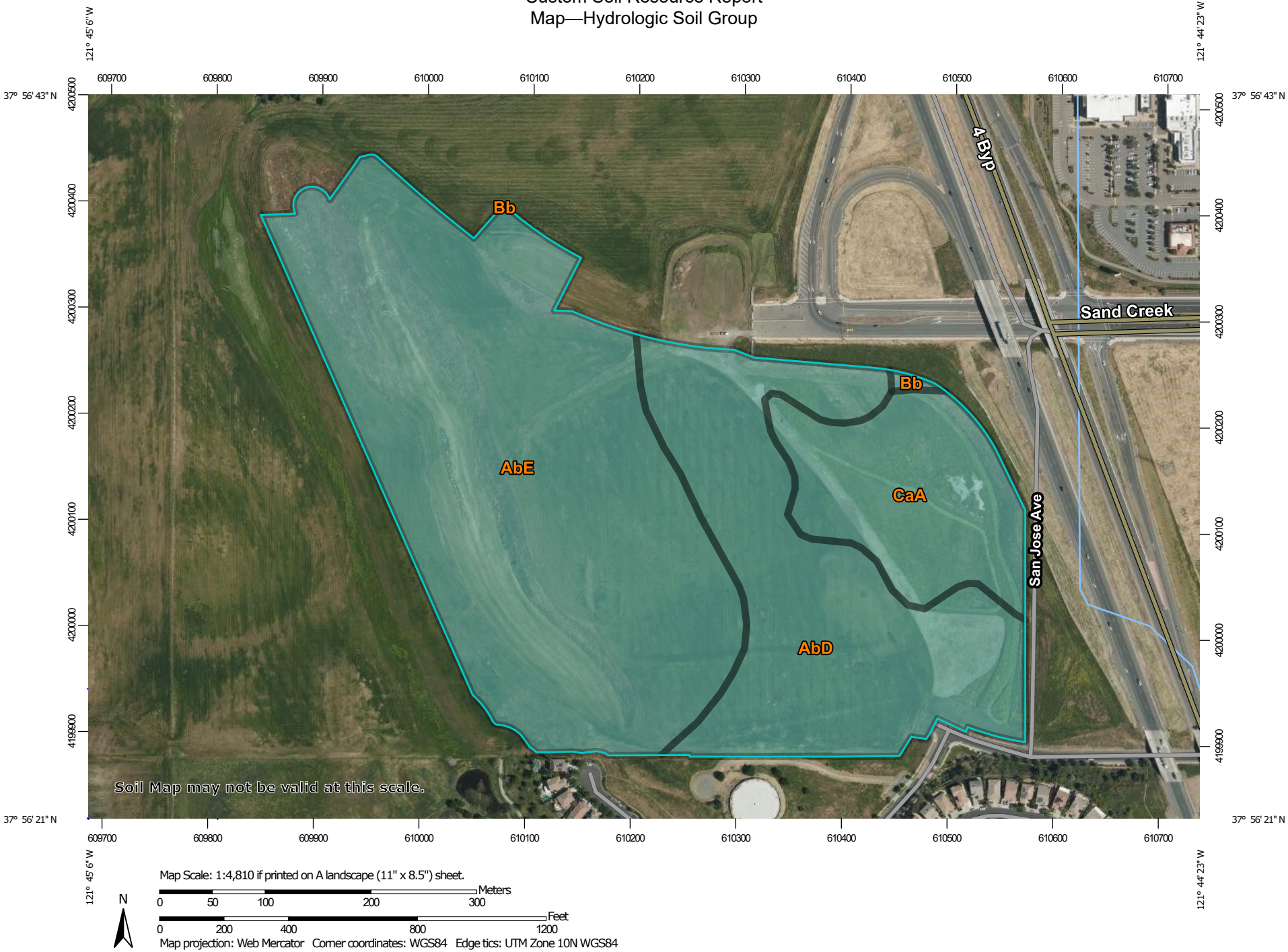
Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.



Map Scale: 1:4,810 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Contra Costa County, California
Survey Area Data: Version 18, Sep 9, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 23, 2019—Apr 29, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AbD	Altamont clay, 9 to 15 percent slopes, MLRA 15	C	18.1	29.3%
AbE	Altamont clay, 15 to 30 percent slopes, MLRA 15	C	35.0	56.7%
Bb	Brentwood clay loam	C	0.2	0.3%
CaA	Capay clay, 0 to 3 percent slopes, MLRA 17	C	8.5	13.8%
Totals for Area of Interest			**61.7**	**100.0%**

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

APPENDIX B

IMP

Calculator

Output

Project Name: Bridle Gate
Project Type: Treatment and Flow Control
APN:
Drainage Area: 2,521,736
Mean Annual Precipitation: 13.0

IV. Areas Draining to IMPs

IMP Name: IMP W
IMP Type: Cistern + Bioretention Facility
Soil Group: IMP W

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA W-1	354,060	Conventional Roof	1.00	354,060
DMA W-2	310,269	Concrete or Asphalt	1.00	310,269
DMA W-3	345,637	Landscape	0.50	172,819
			Total	837,148
			Area	
			Volume	

IMP Sizing

IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
0.013	0.528	5,751	5,830
0.105	1.264	111,106	201,871
		Maximum Underdrain Flow (cfs)	0.76
		Orifice Diameter (in)	3.71

IMP Name: IMP E
IMP Type: Cistern + Bioretention Facility
Soil Group: IMP E

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA E-1	466,460	Conventional Roof	1.00	466,460
DMA E-2	316,645	Concrete or Asphalt	1.00	316,645
DMA E-3	714,281	Landscape	0.50	357,141
			Total	1,140,246
			Area	
			Volume	

IMP Sizing

IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
0.013	0.528	7,833	8,554
0.105	1.264	151,333	199,910
		Maximum Underdrain Flow (cfs)	1.12

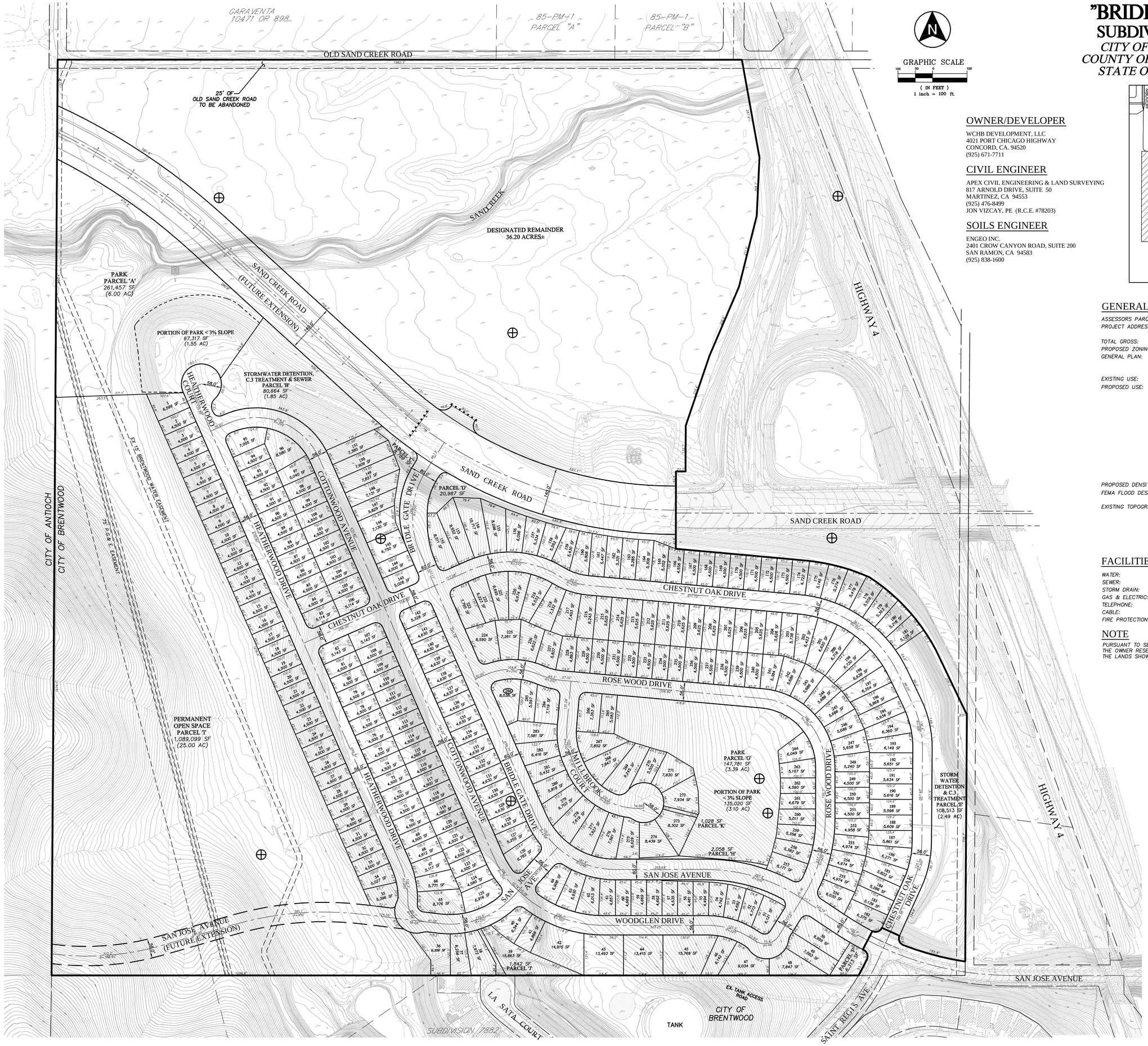
Orifice Diameter (in)	4.52

Report generated on 1/13/2022 12:00:00 AM by the Contra Costa Clean Water Program IMP Sizing Tool software (version 1.3.1.0).

APPENDIX C

Apex VTM

VESTING TENTATIVE MAP
"BRIDLE GATE"
SUBDIVISION 9586
CITY OF BRENTWOOD
COUNTY OF CONTRA COSTA
STATE OF CALIFORNIA



GRAPHIC SCALE
100 50 0 100
(IN FEET)
1 inch = 100 ft.

OWNER/DEVELOPER

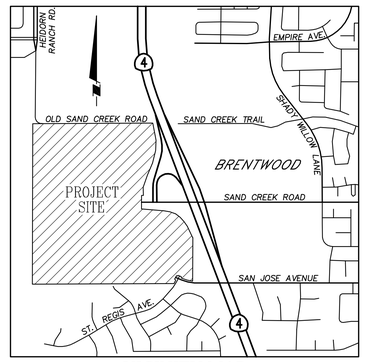
WCHB DEVELOPMENT, LLC
4021 PORT CHICAGO HIGHWAY
CONCORD, CA. 94520
(925) 671-7711

CIVIL ENGINEER

APEX CIVIL ENGINEERING & LAND SURVEYING
817 ARNOLD DRIVE, SUITE 50
MARTINEZ, CA 94553
(925) 476-8499
JON VIZCAY, PE (R.C.E. #78203)

SOILS ENGINEER

ENGEO INC.
2401 CROW CANYON ROAD, SUITE 200
SAN RAMON, CA 94583
(925) 838-1600



VICINITY MAP
NOT TO SCALE

GENERAL

ASSESSORS PARCEL NO(s):	*019-082-007*
PROJECT ADDRESS:	*WEST TERMINUS OF SAN JOSE AVENUE & SAND CREEK ROAD IN BRENTWOOD, CA*
TOTAL GROSS:	*135.31 ACRES*
PROPOSED ZONING:	*PD-PLANNED DEVELOPMENT*
GENERAL PLAN:	*R-LD: RESIDENTIAL-LOW DENSITY* *P: PARK* *P-OS: PERMANENT OPEN SPACE*
EXISTING USE:	*VACANT LAND-CATTLE GRAZING*
PROPOSED USE:	*286 SINGLE FAMILY RESIDENTIAL LOTS (4,500 SF MIN.)* *PARCEL A: 6.00 AC (PARK) (1.55 AC < 3% SLOPE)* *PARCEL B: 1.85 AC (STORM, C.3, SEWER)* *PARCEL C: 0.20 AC (LANDSCAPING)* *PARGEL D: 0.48 AC (LANDSCAPING)* *PARCEL E: 2.49 AC (STORM, C.3)* *PARCEL F: 0.14 AC (LANDSCAPING)* *PARCEL G: 3.39 AC (PARK) (3.10 AC < 3% SLOPE)* *PARCEL H: 0.05 AC (LANDSCAPING)* *PARCEL I: 25.00 AC (OPEN SPACE)* *PARCEL J: 0.04 AC (PEDESTRIAN ACCESS)* *PARCEL K: 0.02 AC (PEDESTRIAN ACCESS)*
PROPOSED DENSITY:	*3 DU/AC (SOUTH OF SAND CREEK ROAD CENTERLINE)*
FEMA FLOOD DESIGNATION:	*ZONES "A", "AE" & "X" (FIRM MAPS 06013C0335F & 06013C0353F, DATED 06-16-2009)*
EXISTING TOPOGRAPHY DATE:	*05-23-2017*

FACILITIES

WATER:	*CITY OF BRENTWOOD*
SEWER:	*CITY OF BRENTWOOD*
STORM DRAIN:	*CITY OF BRENTWOOD*
GAS & ELECTRIC:	*PACIFIC GAS & ELECTRIC*
TELEPHONE:	*AT&T*
CABLE:	*COMCAST*
FIRE PROTECTION:	*CONTRA COSTA COUNTY*

NOTE

PURSUANT TO SECTION 66456.1 OF THE SUBDIVISION MAP ACT, THE OWNER RESERVES THE RIGHT TO FILE MULTIPLE MAPS ON THE LANDS SHOWN ON THIS MAP.

BENCHMARK

CONTRA COSTA COUNTY BM. NO. 982, A P.K. NAIL SET IN SOUTWEST LEG OF P.G.&E.TOWER 200 FEET EAST OF BRIDGE CROSSING SAND CREEK ON OLD SAND CREEK ROAD 40 FEET NORTH OF CENTERLINE OF ROAD. ELEV.=135.43

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS MAP IS DETERMINED BY FOUND MONUMENTS SHOWN HEREON; THE BEARING BEING N89°28'41"W BETWEEN STATION 2129 AND STATION 2120 PER RECORD OF SURVEY NO. 2496 (118 LSM 40). THE BEARING SHOWN ARE ON CALIFORNIA COORDINATE SYSTEM ZONE III (NAD 83). MULTIPLY DISTANCES AS SHOWN BY 0.99993501 TO OBTAIN GRID DISTANCES.

SHEET INDEX

SHEET No.	DESCRIPTION
1	TITLE SHEET
2	PRELIMINARY GRADING & UTILITY PLAN

LEGEND

EXISTING	*PROPOSED*	*ITEM*
		PAVEMENT
		SIDEWALK
		CURB & GUTTER
8" SS	8" SS	*SANITARY SEWER MAIN*
		SANITARY SEWER MANHOLE
8" SD	8" SD	*STORM DRAIN LINE*
		STORM DRAIN MH
		INLET OR CATCH BASIN
		FIRE HYDRANT
6" W	6" W	*WATER LINE & VALVE*
		WATER METER & BACKFLOW DEVICE
		AIR RELEASE VALVE
		SIGN
		STREET LIGHT
		UTILITY POLE
		STREET MONUMENTS
71	75	*CONTOURS*
		RIGHT-OF-WAY
		LOT BOUNDARY
		ADJACENT PROPERTY LINE
		DIRECTION OF DRAINAGE FLOW
		RETAINING WALL
		ABANDONED OIL WELL

THE CITY OF BRENTWOOD
PUBLIC WORKS DEPARTMENT
708 Third Street, Brentwood, CA 94513
Ph: (925) 516-5420 • FAX: (925) 516-5421
www.ci.brentwood.ca.us

APEX CIVIL ENGINEERING & LAND SURVEYING
817 Arnold Drive, Ste. 50
Martinez, CA 94553
Ph: (925) 476-8499
www.apexce.net

NO.	REVISIONS	NO	BY	DATE

DESIGN: JV
DRAWN: STAFF
CHECKED: JV
PROJECT #: 20066

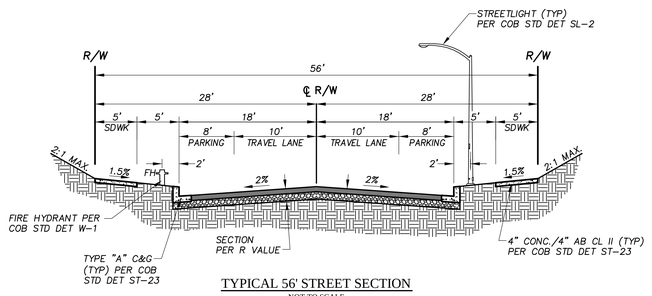
REGISTERED PROFESSIONAL ENGINEER
JON J. VIZCAY
NO. 78203
CIVIL
STATE OF CALIFORNIA

VESTING TENTATIVE MAP
"BRIDLE GATE" SUB # 9586 BRENTWOOD, CA

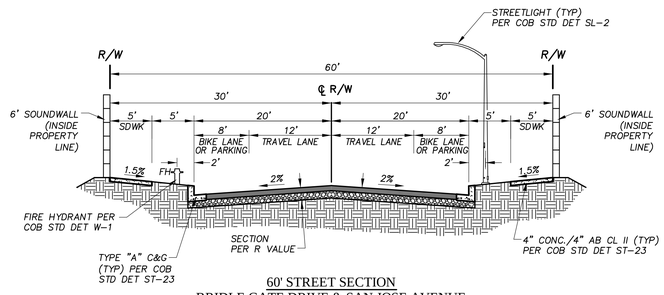
SHEET 1 OF 2
DATE 01-06-2022

BRIDLE GATE - VESTING TENTATIVE MAP - 01-06-2022

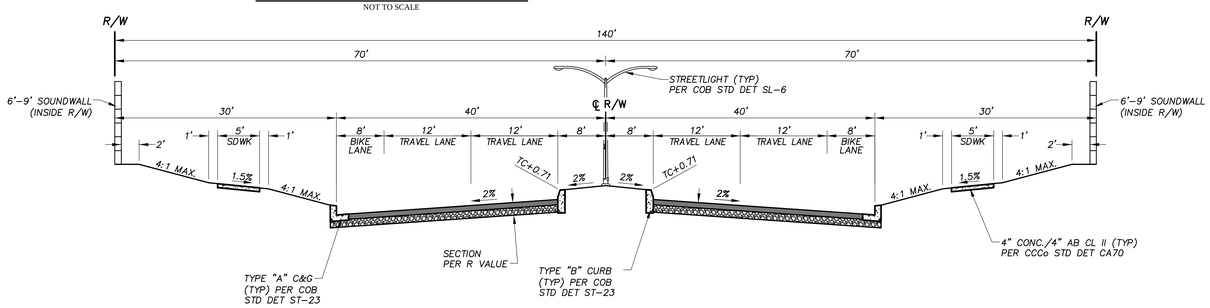
PRELIMINARY GRADING & UTILITY PLAN
"BRIDLE GATE"
SUBDIVISION 9586
CITY OF BRENTWOOD
COUNTY OF CONTRA COSTA
STATE OF CALIFORNIA



TYPICAL 56' STREET SECTION
NOT TO SCALE



60' STREET SECTION
BRIDLE GATE DRIVE & SAN JOSE AVENUE
NOT TO SCALE



140' STREET SECTION
SAND CREEK ROAD
NOT TO SCALE

GRAPHIC SCALE
100 50 0 100
(IN FEET)
1 inch = 100 ft.

ABBREVIATIONS

AB	–	AGGREGATE BASE
AC	–	ACRE
AD	–	AREA DRAIN
BW	–	BOTTOM OF WALL
CB	–	CATCH BASIN
CCWD	–	
COB	–	CITY OF BRENTWOOD
CONC	–	CONCRETE
DET	–	DETAIL
DU	–	DWELLING UNITS
EX	–	EXISTING
FC	–	FACE OF CURB
FF	–	FINISH FLOOR
FG	–	FINISH GRADE
FL	–	FLOW LINE ELEVATION
G	–	GRATE ELEVATION
GL	–	GARAGE LIP ELEVATION
HP	–	HIGH POINT
LF	–	LINEAR FEET
P	–	PAD
℄	–	PROPERTY LINE
PVC	–	POLYVINYL CHLORIDE
R/W	–	RIGHT OF WAY
SD	–	STORM DRAIN
SDWK	–	SIDEWALK
SF	–	SQUARE FEET
SO	–	SIDE OPENING
SS	–	SANITARY SEWER
SSCO	–	SANITARY SEWER CLEANOUT
SSE	–	SANITARY SEWER EASEMENT
STD	–	STANDARD
TC	–	TOP OF CURB
TW	–	TOP OF WALL
TYP	–	TYPICAL
WTRNCH	–	WATER SERVICES TRENCH

DIAL TOLL FREE
1 800 227 2600
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF NORTHERN CALIFORNIA

NOTE:
THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES DURING CONSTRUCTION.

THE CITY OF BRENTWOOD
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NO.	REVISIONS	NO	BY	DATE

DESIGN: JV
DRAWN: STAFF
CHECKED: JV
PROJECT #: 20066

REGISTERED PROFESSIONAL ENGINEER JOHN J. VITTORY NO. 78203 CIVIL STATE OF CALIFORNIA

VESTING TENTATIVE MAP
PRELIMINARY GRADING & UTILITY PLAN
"BRIDLE GATE" SUB # 9586 BRENTWOOD, CA

SHEET 2 OF 2
DATE 01-06-2022

Appendix C

Phase I Environmental Site Assessment



BRIDLE GATE
BRENTWOOD, CALIFORNIA

PHASE I ENVIRONMENTAL SITE ASSESSMENT

SUBMITTED TO
Mr. Louis Parsons
West Coast Home Builders, Inc.
4061 Port Chicago Highway, Suite H
Concord, CA 94520

PREPARED BY
ENGEO Incorporated

May 6, 2020

PROJECT NO.
3359.210.001

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ENGEO
Expect Excellence

Project No.
3592.210.001

May 6, 2020

Mr. Louis Parsons
West Coast Home Builders, Inc.
4061 Port Chicago Highway, Suite H
Concord, CA 94520

Subject: Bridle Gate
Sand Creek Road and San Jose Ave.
Brentwood, California

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Dear Mr. Parsons:

ENGEO is pleased to present our phase I environmental site assessment of the subject property (Property), located in Brentwood, California. The attached report includes a description of the site assessment activities, along with ENGEO's findings, opinions, and conclusions regarding the Property.

ENGEO has the specific qualifications based on education, training, and experience to assess the nature, history, and setting of the Property, and has developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312 and the American Standard Testing Method (ASTM) Practice E1527-13. We declare that, to the best of our professional knowledge and belief, the responsible charge for this study meets the definition of Environmental Professional as defined in Section 312.10 of 40 CFR Part 312 and ASTM E1527-13.

We are pleased to be of service to you on this project. If you have any questions concerning the contents of our report, please contact us.

Sincerely,

ENGEO Incorporated

Brooke Spruit, PE

Shawn Munger, CHG

bs/sm/cjn

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APPENDIX E – Environmental Data Resources, Inc., Sanborn Map Report

APPENDIX F – Environmental Data Resources, Inc., City Directory

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APPENDIX H – Qualifications of Environmental Professional

EXECUTIVE SUMMARY

ENGEO conducted a phase I environmental site assessment for the property located at Sand Creek Road and San Jose Ave. in Brentwood, California (Property). The Property is approximately 133.7 acres in area and is identified by Assessor's Parcel Number (APN) 019-082-007.

The Property consists of partially graded undeveloped land being dry farmed. Review of historical records indicates that the Property has been used for dry farming of grains or hay from at least 1939 until the late 1990s. Between 1962 and 1966, seven oil wells were drilled on the subject property and a tank complex and production water impoundment was built in the southeastern portion of the site to separate the oil/water mixture, store oil, and collect the natural oil from the wells. These oil production facilities were decommissioned in between 1994 and 1996. Records of abandonment were reviewed for all the wells shown on-site (Figure 2).

This assessment included a review of local, state, tribal, and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources. A reconnaissance of the Property was conducted to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially hazardous materials and interviews with persons knowledgeable about current and past site use.

The site reconnaissance and records review did find documentation of past soil or groundwater impairments, which were subsequently mitigated and provided closure by RWQCB in 1996. A review of regulatory databases maintained by county, state, tribal, and federal agencies found documentation of hazardous materials discharge on the Property; however, these previous impacts were mitigated under the oversight of the RWQCB and provided closure. No contaminated facilities were identified within the appropriate American Society for Testing and Materials (ASTM) search distances that would reasonably be expected to impact the Property.

Based on the findings of this assessment, one Recognized Environmental Condition (REC), one historical REC, and no controlled RECs were identified for the Property.

The following historical REC was identified:

- Seven oil production wells operated on the Property from 1962 to 1996 (Figure 2). These wells were decommissioned and abandoned in accordance with the Department of Oil and Gas (now CalGEM) regulations. Records of abandonment were reviewed on the CalGEM website. The Property also contained an above-ground storage tank complex for the separation of oil, condensate, and water which was decommission by 1996. The former Brentwood crude oil pipeline also operated within the Property (Figure 2). Remedial activities for the decommissioning of the well sites and tank farm included soil, excavation, bioremediation, soil sampling/analysis and groundwater monitoring. Confirmation sampling and laboratory testing demonstrated successful remediation to the approved cleanup objectives set forth by Central Valley RWQCB. Closure letters for the Sullenger Tank Farm, Ward Tank Farm, and Wells 3-10, 34-10, 32-10, and 38-10 were issued in 1996 through 2000 by the Central Valley RWQCB. Confirmation samples obtained from the bioremediated soil stockpile had TPH concentrations up to 1,800 parts per million (ppm) which exceeds current TPH residential screening levels. It is likely that TPH concentrations have significantly degraded over time. This can be confirmed with supplemental analysis. We

understand this soil, at the direction of RWQCB, was used as a suitable backfill for oil well remedial excavations.

The following potential environmental REC was identified:

- Possible residual impacts could remain within the vicinity of the former oil wells, the former Brentwood crude oil pipeline, and the former tank farm. These wells were decommissioned and abandoned in accordance with the regulatory requirements of CalGEM..

ENGEO has performed a phase I environmental site assessment in general conformance with the scope and limitations of ASTM E1527-13 and the standards and practices of the All Appropriate Inquiry – Final Rule (40 Code of Federal Regulations Part 312).

It is our opinion that the findings of this study are based on a sufficient level of information obtained during our contracted scope of services to render a conclusion as to whether additional appropriate investigation is required to identify the presence or likely presence of a REC. The following data gap was identified:

- We did not receive a response from the Central Valley RWQCB regarding files pertaining to their oversight of the former oil wells and facilities. We were provided some closure documents from West Coast Home Builders, Inc. which included closure letters for Wells 3-10, 34-10, 32-10, and 38-10 issued in 1996 through 2000 by the Central Valley RWQCB.

ENGEO recommends the following:

<u>Former Oil Well Operations</u>

Seven oil wells decommissioned and abandoned in accordance with the Department of Oil and Gas (CalGEM) requirements, and a former above-ground tank/processing area were located within the Property boundaries. The following is recommended to address the past oil production activities:

- Limited phase II environmental site assessment in the area of the former tank farm and oil wells.
- A topographic survey of Well 36-10.
- Any remaining abandoned oil pipelines found within the areas of the project site planned for development should be removed during construction.
- Preparation of a Soil Management Plan (SMP) could be prepared for the Property prior to construction activity. This SMP could outline procedures and guidelines for handling unanticipated impacted material associated with former oil site use. If indicators of apparent soil contamination (soil staining, odors, debris fill material, etc.) are encountered at the project site, specifically in the vicinity of abandoned oil wells, or during removal of abandoned oil pipelines, the impacted area should be isolated from surrounding, non-impacted areas. The project environmental professional shall obtain samples of the potentially impacted soil for analysis of the contaminants of concern and comparison with current applicable regulatory residential screening levels.
- Prior to final map approval, the project applicant shall submit to the City of Brentwood Engineering Department, for review and approval, plot plans which show that future inhabited structures will not be located directly over the seven on-site abandoned oil wells.

1.0 INTRODUCTION

1.1 PURPOSE OF PHASE I ENVIRONMENTAL SITE ASSESSMENT

This assessment was performed at the request of West Coast Home Builders, Inc. The objective of this phase I environmental site assessment is to identify Recognized Environmental Conditions (RECs) associated with the Property. As defined in the ASTM Standard Practice E1527-13, an REC is "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

1.2 DETAILED SCOPE OF SERVICES

The scope of services performed included the following:

- A review of previous environmental reports prepared for the Property.
- A review of publicly available and practicably reviewable standard local, state, tribal, and federal environmental record sources.
- A review of publicly available and practicably reviewable standard historical sources, aerial photographs, fire insurance maps and physical setting sources.
- A reconnaissance of the Property to review site use and current conditions. The reconnaissance was conducted to check for the storage, use, production or disposal of hazardous or potentially hazardous materials.
- Written/oral interviews with owners/occupants and public sector officials.
- Preparation of this report with our findings, opinions, and conclusions.

1.3 SITE LOCATION AND DESCRIPTION

ENGEO conducted a phase I environmental site assessment for the Property located at Sand Creek Road and San Jose Avenue in Brentwood, California (Figures 1 and 2). The approximately 133.7-acre Property is identified as APN 019-082-007 (Figure 3) and is currently partially graded undeveloped land being dry farmed.

1.4 CURRENT USE OF PROPERTY AND ADJOINING PROPERTIES

The Property is partially graded undeveloped currently being dry farmed. Sand Creek traverses across the northern portion of the Property in the east-west direction.

Interstate 4 borders the Property to the immediate east and commercial development resides further east of Interstate 4. Residential development borders the Property to the south. Primarily undeveloped land resides to the north and west.

1.5 SITE AND VICINITY CHARACTERISTICS

According to published topographic maps, the Property varies in elevation from approximately 220 to 230 feet above mean sea level (msl) central, southern, and western portions of the Property to approximately 130 feet above msl in the northern and eastern portions. Review of

the Antioch South and Brentwood Quadrangle Geologic Map (Dibblee, 2006) found that the Property is underlain by various formations including Qa (surficial sediments consisting of pebble, gravel, sand, and clay), Tkm (Kreyenhagen Formation consisting of sandstone), Tds (Domengine Sandstone consisting of sandstone), Tkn (Kreyenhagen Formation consisting of clay shale or claystone), and Tmge (Meganos Formation consisting of siltstone and silty mudstone).

Geocheck – Physical Setting Source Summary of the Environmental Data Resources, Inc. (EDR) report (Appendix A) indicated no Federal United States Geological Survey (USGS) and no State wells located within 1 mile of the Property. The Physical Setting Source Summary also provided hydrogeologic information for use as an indicator of groundwater flow direction in the immediate area. This section indicated no wells within a mile of the Property.

We reviewed the Department of Water Resources On-line Water Data Library for depth to water in the vicinity of the Property. The website did not identify any wells within 1 mile of the Property. Former monitoring wells within the Property indicated depth to groundwater to be between 17 and 32 feet bgs and flow to be in the easterly direction.

We reviewed EnviroStor, a website maintained by the State of California Department of Toxic Substances Control, and GeoTracker, a website maintained by the State of California Water Resources Control Board, for nearby facilities with records that include depth to groundwater measurements. The following information was obtained regarding local groundwater conditions.

TABLE 1.5-1: Local Groundwater Conditions

PROXIMITY TO PROPERTY	REPORTED DEPTH TO GROUNDWATER	REPORTED GROUNDWATER FLOW DIRECTION
Adjacent NW	20-30 feet bgs	East

The site-specific depth to groundwater and direction of groundwater flow was not determined as part of this assessment. Fluctuations in groundwater levels may occur seasonally and over a period of years due to variations in precipitation, temperature, irrigation, and other factors.

We reviewed the Department of Conservation, Geologic Energy Management (CalGEM), formerly the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR), website and map database to determine if any historic oil and/or gas wells were located within the Property. There are seven plugged and capped oil wells shown within the Property. These wells are shown consistent with 3-10, 38-10, 36, 32-10, 39, and 31 shown on Figure 2. One plugged and capped dry gas well is shown within the Property, consistent with 34-10 shown on Figure 2. Records of abandonment for these wells are summarized in Section 2.0. There are an additional 75 plugged and capped oil and gas wells within a mile of the Property. The following table provides a summary of the abandoned wells in accordance with the Department of Oil and Gas (CalGEM) requirements within the Property:

TABLE 1.5-2

WELL NAME	DATE DRILLED	DATE ABANDONED	APPROXIMATE TOTAL DEPTH (FT BGS)
Ward 39	June 1975	December 1976	4,808
Ward 31	January 1963	April 1986	5,108

WELL NAME	DATE DRILLED	DATE ABANDONED	APPROXIMATE TOTAL DEPTH (FT BGS)
Ward 36-10	June 1964	April 1986	4,541
Ward 3-10	September 1962	August 1992	4,900
Ward 32-10	May 1963	May 1993	4,700
Ward 34-10	November 1963	August 1992	4,200
Ward 38-10	August 1964	February 1994	4,068

2.0 PREVIOUS ENVIRONMENTAL REPORTS

ENGEO; Modified Phase I Environmental Site Assessment; Colchico Parcel; Sand Creek Road, Antioch, California; January 14, 1992.

We reviewed the Modified Phase I ESA for the source of the known undocumented fill placed within the Property. The ESA identified that the borrow site had been used for agricultural purposes since at least the 1950s. Agricultural activity appeared to have been limited to orchards, principally walnut trees. A limited soil sampling program was conducted to determine if soils had been impacted by past agricultural practices. The program included the recovery of two near-surface soil samples analyzed for organochlorine pesticides. No compounds were detected above laboratory detection limits.

Groundwater Technology: Remedial Action Plan; Various Oxy/Shell/Apache Lease Sites; Brentwood Oil Field; Brentwood, California; January 19, 1994.

This Remedial Action Plan (RAP) was designed for the clean-up of crude oil-containing soil at various OXY USA, Inc./Shell Western E&P Inc./Apache Corporation former lease sites in the Brentwood Oil and Gas Field. The Property is included within this larger study. The objectives of the RAP were to excavate and transport soil to a central on-site location and treat using bioremediation technology and/or to a soil recycling facility. Further, a groundwater assessment at three sites was to be addressed after applicable lease site soil is remediated. The RAP prescribed the following:

- Excavation: Soil with concentrations greater than 100 ppm TPH (or greater than 0.3 ppm benzene) were to be excavated for remediation. Soil samples were to be collected from the base and sidewalls of each excavation area.
- Bioremediation: Treatment system where impacted soil is loaded into a 60-mil HDPE lined cell with leachate capture. Treatment cells were to be operated and maintained until soil analyses indicate a total TPH concentration below 100 ppm.

The proposed clean-up levels were as follows:

- TPH (total): 100 ppm
- Benzene: 0.3 ppm
- Toluene: 0.3 ppm
- Ethylbenzene: 1 ppm
- Xylenes: 1 ppm

The RAP indicated the Central Valley division of RWQCB was the lead regulatory agency, however, Contra Costa County Health Agency was to be copied on data and plans.

Groundwater Technology; Additional Assessment Report; Remediation Action Plan Modifications; Various Oxy/Shell/Apache E & P Lease Sites; Brentwood Oil Field; Brentwood, California; December 13, 1994.

This report summarized additional environmental site assessment work and the pilot study results for bioremediation. The purpose of this assessment was to obtain additional site-specific hydrogeologic data and to further define the extent of petroleum hydrocarbons that were potentially present in the shallow water-bearing zone at various lease sites, which included Ward 3-10 and Ward 34-10 within the Property. The pilot study was designed to determine the effectiveness of bioremediating crude oil-containing soil. The pilot study was successful and bioremediation was determined to be an effective treatment.

Four soil borings were drilled and nineteen monitoring wells were installed during June and July 1994 at Enea Capital 2-8 (off-site), Prewett 4-5 (off-site), Ward 3-10 (on-site), and Ward 34-10 (on-site). Two additional borings and four monitoring wells were drilled and installed at Enea Capital 2-8 (off-site), Prewett 4-5 (off-site), and Ward 34-10 (on-site), Groundwater sample analysis showed varying low concentrations of TPH and BTEX for each site and minor PAH concentrations. Soil samples and WET analysis indicated low leaching potential.

The following modifications to the RAP previously submitted in January of 1994 were made:

- Soil with benzene concentrations greater than 5.5 ppm and total TPH concentrations greater than 500 ppm were to be excavated for remediation laterally and to a depth of 10 feet bgs. Confirmatory sidewall samples were to be collected and analyzed for TPH, BTEX, and PAH concentrations. The excavations were to be backfilled with treated soil. *Subsequent remedial work within the Property was performed, which achieved these cleanup objectives (Fluor Daniel, 1996; RWQCB, 1996).*

- Residual hydrocarbon-containing soil below 10 feet with benzene concentrations less than 14 ppm and TPH concentrations less than 10,000 ppm (residential scenario) were to be left in place to undergo naturally occurring biodegradation. Waste Extraction Test (WET) leachibility data indicated a very low leaching potential. The compacted silty/clayey backfill material was concluded an effective barrier to surface infiltration. Additionally, water in the localized upper water-bearing zones was not considered to be beneficial with no future receptors anticipated. *Subsequent remedial work within the Property was performed which achieved these cleanup objectives (Fluor Daniel, 1996; RWQCB, 1996).*

Groundwater Technology; Human Health Based Soil Remediation Target Concentrations Report; Oxy USA, Inc.; Oil and Gas Field; Brentwood/Antioch, California; February 23, 1995.

The purpose of this report was to determine health-protective concentrations of constituents of concern in soil at remediation sites. Remediation target concentrations for groundwater were not addressed in this report. The recommended remediation goals for soil at these sites were determined from the following exposures:

- Surface soil (to a depth of 10 feet bgs) remediation goals were based on the combined adult/child resident most likely exposure which resulted in a risk exposure between 10^{-6} and

10^{-4} and a hazard index of 1.0. Thus, soil with benzene concentrations greater than 2.5 to 250 mg/kg; individual carcinogenic PAH concentrations greater than 20 to 2,000 µg/kg; toluene, ethylbenzene, or xylenes concentrations greater than 200 mg/kg; or individual non-carcinogenic PAH concentrations greater than 40 mg/kg were to be remediated. *Subsequent remedial work within the Property was performed which achieved these cleanup objectives (Fluor Daniel, 1996; RWQCB, 1996).*

- Surface soil (below 10 feet bgs) remediation goals based on indoor inhalation of benzene vapors by residents, and on direct exposures by construction workers for all other compounds. Thus, soil with benzene concentrations greater than 5 to 500 mg/kg; or individual non-carcinogenic PAH concentrations greater than 1,800 mg/kg were to be remediated. *Subsequent remedial work within the Property was performed which achieved these cleanup objectives (Fluor Daniel, 1996; RWQCB, 1996).*

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 39 December 3, 1976.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 31 August 10, 1986.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 36 August 10, 1986.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 3-10; August 18, 1992.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 32-10; May 6, 1993.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 34-10; August 18, 1992.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 38-10; February 28, 1994.

The above well abandonment records were reviewed for the referenced sites within the Property.

Fluor Daniel GTI; Request for Site Closure – Former Ward 3-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 2, 1996.

We reviewed a Request for Site Closure document addressed to RWQCB for the closure of 3-10. Approximately 3,699 cubic yards of impacted soil was excavated from the former Ward 3-10 site. Soil samples were obtained from three excavation locations (A, B, and C). The first excavation area (A) had samples collected from the sidewalls at depths of 2 feet, 5 feet, 10 feet, and 17 feet bgs and from the bottom of the excavation (18 feet bgs). Two other excavation areas (B and C) did not have visual, olfactory, or PID indications of hydrocarbons. Reported constiuents were below approved soil cleanup criteria. *RWQCB issued a closure letter for Well 3-10 in July of 2007 (RWQCB, 2007).*

Fluor Daniel GTI; Request for Site Closure – Former Ward 34-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 2, 1996.

We reviewed a Request for Site Closure document addressed to RWQCB for the closure of Warm 34-10. Approximately 635 cubic yards of impacted soil was excavated from the former Ward 34-10 site. Confirmation samples were collected from the sidewalls at depths of 2 feet, 5 feet, 10 feet, and 18 feet bgs and the base at 18 feet bgs.. Reported constituents were below approved soil cleanup criteria . *RWQCB issued a closure letter for Well 34-10 in July of 2007 (RWQCB, 2007).*

Fluor Daniel GTI; Request for Site Closure – Former Ward Tank Farm Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 2, 1996.

We reviewed a Request for Site Closure document addressed to RWQCB for the closure of Ward Tank Farm. Approximately 25,600 cubic yards of impacted soil was excavated from the former Ward Tank Farm site. Confirmation samples were collected from the sidewalls at depths of 2 feet, 5 feet, 10 feet, 18 feet bgs. BTEX, PAHs, and TPHs were below approved soil cleanup criteria. *RWQCB issued a closure letter for Ward Tank Farm in July of 2007 (RWQCB, 2007).*

RWQCB; Request for Site Closure – Former Ward 32-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 19, 1996.

RWQCB issued closure for the Former Ward 32-10 site, which indicated no further investigation, remedial or removal action, or monitoring is required. This followed implementation of approved remedial action plans. Approximately 1,667 cubic yards of soil was excavated from the former Ward 32-10 site within the Property. Soil samples were obtained from the excavation sidewalls at depths of 2 feet, 5 feet, 10 feet, and 16 feet bgs. Confirmation sampling did not indicate BTEX, PAHs, and TPHs above approve soil cleanup criteria.

RWQCB; Request for Site Closure – Former Ward 35-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 19, 1996.

RWQCB issued closure for the Former Ward 35-10 site (off-site), which indicated no further investigation, remedial or removal action, or monitoring is required. This followed implementation of approved remedial action plans. Approximately 11 cubic yards of soil was excavated from the former Ward 35-10 site within the Property. Impacted material was biotreated on-site. Confirmation samples were obtained at depths of 5 feet, 5 feet, 10 feet, and 18 feet bgs. Base and sidewall confirmation samples were below cleanup objective levels..

RWQCB; Request for Site Closure – Former Ward 37-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 19, 1996.

RWQCB issued closure for the Former Ward 37-10 site (off-site), which indicated no further investigation, remedial or removal action, or monitoring is required. This followed implementation of approved remedial action plans. Approximately 11 cubic yards of soil was excavated from the former Ward 37-10 site within the Property. Visual, odorous, or PID indications of hydrocarbons were not observed. Analyses did not show TPH-mo above laboratory detections.

RWQCB; Request for Site Closure – Former Ward 38-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 19, 1996.

RWQCB issued closure for the Former Ward 38-10 site, which indicated no further investigation, remedial or removal action, or monitoring is required. This followed implementation of approved remedial action plans. Approximately 11 cubic yards of soil was excavated from the former Ward 38-10 site within the Property. Impacted material was biotreated on-site. Visual, odorous, or PID indications of hydrocarbons were not observed. BTEX and TPHs were not reported above detection limits for the 11 confirmation samples obtained.

Fluor Daniel GTI; Groundwater Monitoring and Sampling Activities; Ward 3-10 Lease; Former OXY Oil and Gas Field; Brentwood, California; March 18, 1998.

Seven groundwater monitoring wells were sampled (MW-15, MW-16, MW-56, MW-57, MW-77, MW-78, and MW-79). Samples were analyzed for TPH-g/BTEX, TPH-d/mo, and PAHs. Additionally samples were analyzed for water quality parameters (sulfide, sulfate, nitrite, nitrate, chlorides, TDS, alkalinity) and dissolved metals (iron, aluminum, boron, copper, manganese, arsenic, selenium). Laboratory analyses indicated only one well had detectable concentrations of BTEX. Minor concentrations of toluene, ethylbenzene, and xylenes were reported. TPH-g and TPH in the kerosene range were reported. PAHs were only detected slightly above detection limits in five of the wells.

Fluor Daniel GTI; Groundwater Monitoring and Sampling Activities; Ward 34-10 Lease; Former OXY Oil and Gas Field; Brentwood, California; March 18, 1998.

Seven groundwater monitoring wells were sampled (MW-22, MW-29, MW-54, MW-55, MW-75, MW-76, and MW-96). Samples were analyzed for TPH-g/BTEX, TPH-d/mo, and PAHs. Additionally samples were analyzed for water quality parameters (sulfide, sulfate, nitrite, nitrate, chlorides, TDS, alkalinity) and dissolved metals (iron, aluminum, boron, copper, manganese, arsenic, selenium). Laboratory analyses indicated no wells had detectable concentrations of BTEX and minor TPH concentrations in the diesel and motor oil range. PAHs were detected slightly above detection limits in all seven wells.

Fluor Daniel GTI; Groundwater Monitoring and Sampling Activities; Ward Tank Farm Lease; Former OXY Oil and Gas Field; Brentwood, California; March 18, 1998.

Ten groundwater monitoring wells were sampled including the existing MW-53, MW-65, MW-66, MW-67, MW-68, MW-85, MW-86, and MW-87 wells, and two additional wells installed MW-100 and MW-101. Samples were analyzed for TPH-g/BTEX, TPH-d/mo, and PAHs. Additionally samples were analyzed for water quality parameters (sulfide, sulfate, nitrite, nitrate, chlorides, TDS, alkalinity) and dissolved metals (iron, aluminum, boron, copper, manganese, arsenic, selenium). Laboratory analyses indicated that two wells had detectable concentrations of BTEX. Minor detections of TPHs were detected. PAHs were detected slightly above detection limits in seven wells.

RWQCB; No Further Action Required; Brentwood Oil and Gas Field, Contra Costa County; July 7, 2000.

RWQCB reviewed a closure report that included documentation that showed a total of 30 monitoring well wells were properly abandoned at Ward 34-10, Ward 3-10, Ward Tank Farm, and Sullenger Tank farm. The letter referenced the closure report indicated low levels of TPHs

as gasoline, kerosene, and diesel detected in soil confirmation samples below cleanup objective levels. Benzene and toluene were not detected. Ethylbenzene and xylenes were detected below water quality objectives at Ward 3-10 and Ward 34-10. Residual TPH concentrations were reported above current maximum contaminant levels (MCLs).

Partner Engineering and Science, Inc.; Transaction Screen Assessment Report; Colchico Quail Cove; Antioch, California; September 23, 2019.

A Transaction Screen Assessment (TSA) was prepared for the site located at south side of Prewett Ranch Drive and the west side of Heidcorn Ranch Road in Antioch. Undocumented soil from this site was imported to the Bridle Gate Property according to West Coast Home Builders, Inc. Partner concluded that the possible former use of agricultural chemicals was not expected to represent a significant environmental concern. Partner recommended no further investigation at the site.

3.0 RECORDS REVIEW

3.1 PROPERTY RECORDS

3.1.1 Title Report/Ownership

The Title Report lists recorded land title detail, ownership fees, leases, land contracts, easements, liens, deficiencies, and other encumbrances attached to or recorded against a subject property. Laws and regulations pertaining to land trusts vary from state to state and the detail of information presented in a Title Report can vary greatly by jurisdiction. As a result, ENGEO utilizes a Title Report, when provided to us, as a supplement to other historical record sources.

A Preliminary Title Report for the Property, prepared by Old Republic Title Company and dated March 17, 2020, was provided for our review. The Property title is vested in West Coast Home Builders, Inc. A deed to PG&E is referenced for electrical power transmission lines and a gas pipeline. The title report also states oil and gas leases for the Property. No references to environmental liens, deed restrictions or other potential environmental issues were noted. This report is included in Appendix B.

3.2 HISTORICAL RECORD SOURCES

The purpose of the historical record review is to develop a history of the previous uses or occupancies of the Property and surrounding area in order to identify those uses or occupancies that are likely to have led to recognized environmental conditions on the Property.

3.2.1 Historical Topographic Maps/Aerial Photographs/Sanborn Maps

Historical USGS topographic maps, aerial photographs, and Sanborn Fire insurance maps were reviewed to determine if discernible changes pertaining to the Property had been recorded. EDR provided the following maps and photographs, presented in Appendices D, E, and F.

The site has historically been used for dry farming of grains or hay from at least 1939 until the present time. By 1939, a homesite was located at the northeastern corner of the parcel. Between 1962 and 1964, seven oil wells were drilled on the subject Property. By 1966, two

small tanks and a production water impoundment had been built in the southeastern portion of the Property to separate the oil/water mixture, store oil and collect the condensate from the wells. A review of the 1976 aerial photograph noted a linear trace of disturbed soil along the existing PG&E pipeline easement. These oil production facilities were decommission by 1996. Aerial photographs between 1998 and 2016 show the Property as mostly undeveloped until 2016 when some apparent grading occurred within the southern central portion of the Property.

The parcels north of the subject property were developed for orchard and more recently row crops. East of the subject property, the parcels were used for orchard crops from 1939 to 1981 and row crops after 1981. The parcels to the south and west have been used for grazing or dry farming from the earliest photographs reviewed. A residential development was built to the south of the Property and Interstate 4 to the east in the early 2000's. An interchange was built to the east along Interstate 4 in the 2016 photograph.

3.2.2 City Directory

City Directories, published since the 18th century for major towns and cities, list the name of the resident or business associated with each address. A city directory search conducted by EDR is located in Appendix F. The Property is not associated with listings. Surrounding listings are primarily residential and commercial.

3.3 ENVIRONMENTAL RECORD SOURCES

EDR performed a search of federal, tribal, state, and local databases regarding the Property and nearby properties. Details regarding the databases searched by EDR are provided in Appendix A. A list of the facilities documented by EDR within the approximate minimum search distance of the Property is provided below.

3.3.1 Environmental Records

3.3.1.1 Subject Property

The Property is listed on Environmental Record source databases as NPDES and CIWQS for Bridle Gate. This is associated with stormwater permitting during grading.

3.3.1.2 Other Properties

The following databases include facilities listed within the appropriate ASTM search distances of the Property on Environmental Records sources.

TABLE 3.3.1.2-1

FACILITY	STREET	DATABASES
SAND CREEK STATION	HEIDORN RANCH & SAND CREEK	CONTRA COSTA CO. SITE LIST
VICTORIA SECRET STORE #1411	2845 SAND CREEK RD SPC E-4	CERS HAZ WASTE
SHELL YARD	3052 HEIDORN RANCH RD	CPS-SLIC, CDL, CERS
THE TALBOTS INC. #1193	2565 SAND CREEK RD STE 104	CERS HAZ WASTE

FACILITY	STREET	DATABASES
LENSCRAFTERS #5612	2565 SAND CREEK RD STE 124	CONTRA COSTA CO. SITE LIST, HAZNET, HWTS, CONTRA COSTA CO. SITE LIST, CERS HAZ WASTE, RCRA NONGEN/NLR
ROUND TABLE PIZZA	2540 SAND CREEK RD	CONTRA COSTA CO. SITE LIST
EXPRESS FASHION OPERATIONS LLC	2545 SAND CREEK RD	CONTRA COSTA CO. SITE LIST, HAZNET, CERS HAZ WASTE, HWTS, RCRA NONGEN/NLR
BRENTWOOD SHOPPING CENTER	2200 SAN JOSE AVENUE	CPS-SLIC, CERS
ROSS DRESS FOR LESS #0629	2520 SAND CREEK RD	CONTRA COSTA CO. SITE LIST, HAZNET, CERS HAZ WASTE, HWTS, RCRA NONGEN/NLR
HOLLISTER CO	2505 SAND CREEK RD	CONTRA COSTA CO. SITE LIST, CERS HAZ WASTE
BATH & BODY WORKS #2077	2505 SAND CREEK RD STE H-2	CERS, CERS HAZ WASTE, RCRA NONGEN/NLR
HOLLISTER CO	2505 SAND CREEK RD	RCRA NonGen / NLR
KELLY-MOORE PAINT CO INC	2480 SAND CREEK RD	RCRA NonGen / NLR, CONTRA COSTA CO. SITE LIST, HAZNET, CERS, CERS HAZ WASTE, HWTS
PARTY CITY #444 BRENTWOOD	2470 SAND CREEK RD	CONTRA COSTA CO. SITE LIST, HAZNET, CHMIRS, CERS, CERS HAZ WASTE, HWTS, RCRA NONGEN/NLR
REI #126	2475 S SAND CREEK RD 100	CONTRA COSTA CO. SITE LIST
HOMEGOODS 0237	2460 SAND CREEK RD	RCRA NonGen / NLR, CONTRA COSTA CO. SITE, CERS HAZ WASTE
ULTA BEAUTY 353	2465 SAND CREEK RD	RCRA NonGen / NLR, CONTRA COSTA CO. SITE LIST, HAZNET, CERS, CERS HAZ WASTE, HWTS
MAC 695434	2455 SAND CREEK RD STE 116	CONTRA COSTA CO. SITE LIST, HAZNET, NPDES, CIWQS, HWTS, CERS HAZ WASTE, RCRA NONGEN/NLR
TJ MAXX 0858	2450 SAND CREEK RD	CONTRA COSTA CO. SITE LIS, HAZNET, CERS HAZ WASTE, HWTS, RCRA NONGEN/NLR
SHELL PURCHASE	SAND CREEK ROAD	HIST UST, EMI, CERS
COSMOPROF BEAUTY	2440 SAND CREEK RD STE E 2	RCRA NonGen / NLR, CONTRA COSTA CO. SITE LIST, CERS HAZ WASTE
BJ'S RESTAURANT & BREWHOUSE	2365 SAND CREEK RD	CONTRA COSTA CO. SITE LIST, NPDES
RALEY'S #336	2400 SANDCREEK RD	FINDS, RCRA NONGEN/NLR, CONTRA COSTA CO. SITE, CONTRA COSTA CO. SITE
EQUILON PIPLINE CO LLC	3052 SAND CREEK RD	CONTRA COSTA CO. SITE LIST
LOMA VISTA ELEMENTARY CLASSROOM ADDITION	2110 SAN JOSE AVENUE	SCH, ENVIROSTOR
T-MOBILE WEST CORP/BA01704A	2110 SAN JOSE AVE	CONTRA COSTA CO. SITE LIST
RED ROBIN #590 (BRENTWOOD)	2385 SAND CREEK RD	CONTRA COSTA CO. SITE LIST, CERS,
TERMO COMPANY	SAN JOSE AVE	LUST, HIST CORTESE, CERS
EMPIRE ELEMENTARY SCHOOL	EMPIRE AVENUE/AMBER LANE	SCH, ENVIROSTOR
MILES-FENELL PROPERTY	2200 SHADY WILLOW LANE,2301 & 2251 EMPIRE AVENUE	VCP, ENVIROSTOR

We reviewed GeoTracker and EnviroStor for nearby sites that may have the potential to impact the Property:

Shell Yard, located at 3052 Heidorn Ranch Road, adjacent to the northwest, a closed leaking underground storage tank (LUST) case. The 10-acre lot was formerly used as an office and maintenance yard for pipeline operations, with secondary use as a support area for oil and gas production operations. Between 1997 and 2009, OXY identified four areas of petroleum hydrocarbon contamination and excavated 77,800 cubic yards of contaminated soil, except for two small areas near the high pressure gas lines, bio-treated the soil on-site, and backfilled the site to grade. Groundwater monitoring was conducted on the site from 2005 to 2010. Prior to closure, TPH-d was only detected at 320 µg/L since 2006. Given the remedial activities, closure status, and low residual concentrations, this is unlikely to pose an environmental concern for the Property.

Based on the distances to the identified database sites, regional topographic gradient, and the EDR findings, the above-stated database sites would not pose an environmental risk to the Property. Properties that are on the "Orphan Summary" list appear to be located beyond the ASTM recommended radius search criteria.

3.4 REGULATORY AGENCY FILES AND RECORDS

The following agencies were contacted pertaining to possible past development and/or activity at the Property.

TABLE 3.4-1: Regulatory Agency Records

NAME OF AGENCY	RECORDS REVIEWED
City of Brentwood Building and Planning Departments	We contacted the City of Brentwood Building and Planning Department. We were informed no building records exist for the Property. We were informed that the City of Brentwood prepared a Mitigated Negative Declaration (MND) (2006) report for the Property; however, this has since been superseded by an Environmental Impact Report (EIR).
East Contra Costa County Fire Prevention Department	The East Contra Costa County Fire Prevention Department provided files for 2530 Sand Creek Road (listed incorrectly as the Property in their system). They did not have files available pertaining to the Property.
Contra Costa County Department of Environmental Health	We were provided files for OXY USA Brentwood Oil Fields related records. We were provided the following: • Emergency Response Plans • Hazardous Materials Business Plans (1988-1992) • Change of Operatorship from Shell Western E&P to OXY USA (1988) • Inspections (1990) • Approval of proposed soil remediation for Brentwood Oil and Gas Field by RWQCB (1995) • RWQCB review of Cleanup Levels outlined in DTSC's 1995 letter for the Brentwood Oil and Gas Fields (1995) • Memorandum from DTSC in providing consultative services in risk assessment for the Brentwood Oil and Gas Fields Site to support RWQCB pertaining to the potential human health effects of impacted soil at the site

NAME OF AGENCY	RECORDS REVIEWED
	(1995). This memo it would be best to set the target coil cleanup level at the RME 10^{-6} risk level for all carcinogens and a hazard ratio of 1.0. It was also stated that during remediation, RWQCB may determine that it is not technically possible or too costly to achieve those low target soil levels for the carcinogens, in which case Oxy may clean up to a higher concentration level corresponding to an alternative risk level between 10^{-4} and 10^{-6}. • Phase II Site Investigation Final Report for Brentwood Oil and Gas Field (1992) prepared by Oxy USA, Inc. It was determined that several sites have impacted groundwater quality including Ward 3-10 and Ward 32-10 within the Property. RWQCB issued closure for wells in Section 2.0. • Notice of Violation for Oxy USA for an effluent sample containing benzene at 36.8 ppb. The violation does not specifically identify the Property as the discharge location. • We reviewed monitoring well destruction permits issued in 2000 for 30 monitoring wells including MW-22, MW-29, MW-54, MW-55, MW-75, MW-76, MW-96, MW-15, MW-16, MW-56, MW-57, MW-77, MW-78, MW-79, MW-53, MW-65, MW-66, MW-67, MW-68, MW-85, MW-56, MW-87, MW-100, MW-101, MW-46, MW-62, MW-63, MW-64, MW-88, MW-89.
Contra Costa County Assessor's Office	We reviewed the online database and confirm the Property is associated with APN 019-082-007. The Property is incorrectly listed as 2530 Sand Creek Road in the GIS database.
Central Valley California State Water Resources Control Board	The Property was not listed on GeoTracker, the RWQCB online database; however, the Central Valley RWQCB provided oversight on the former tank farm and oil gas wells. We were provided closure documents by West Coast Home Builders, Inc. pertaining to the former oil wells. We reached out to the Central Valley RWQCB division, however, in response to the COVID-19 Shelter-in-Place Order, non-essential file reviews are not being performed. We did not receive an official response by the completion of this report.
Department of Toxic Substances Control	The Property is not listed on the Department of Toxic Substances Controls' online database, EnviroStor.

3.5 INDOOR AIR QUALITY

An evaluation of indoor air quality, mold, or radon was not included as part of the contracted scope of services. The California Department of Public Health has conducted studies of radon risks throughout the state, sorted by zip code. Results of the studies indicate that 11 tests were conducted within the Property zip code, with no tests exceeding the current EPA action level of 4 picocuries per liter {pCi/L}[1]).

[1] California Department of Public Health – Radon Program– (https://www.cdph.ca.gov/Programs/CEH/DRSEM/CDPH%20Document%20Library/EMB/Radon/Radon%20Test%20Results.pdf).

In accordance with ASTM E2600-15 (Tier 1) (*Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*); There are potential petroleum hydrocarbon sources for vapor intrusion within 1/10 mile of the Property or volatile organic compound (VOCs) sources within 1/3 mile of the Property. Seven oil wells, an above ground storage tank facility, and crude oil underground pipeline previously operated on the Property (Figure 2). The former oil field operations could pose a potential vapor intrusion consideration.

4.0 SITE RECONNAISSANCE

4.1 METHODOLOGY

ENGEO conducted a reconnaissance of the Property on March 25, 2020. The reconnaissance was performed by Brooke Spruit, Project Engineer of ENGEO. The Property was viewed for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The Property was also checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks. Photographs taken during the site reconnaissance are presented in Figure 4.

4.2 SITE OBSERVATIONS

The following table summarizes our observations during the reconnaissance:

TABLE 4.2-1: Site Observations

FEATURE TYPE	OBSERVATIONS
Structures	No structures were observed during the site reconnaissance.
Hazardous Substances and Petroleum Products in Connection with Identified Uses	We observed signage for a PG&E underground gas pipeline within the southwestern portion of the Property traversing from south to northeast.
Storage Tanks (underground and above-ground)	No above-ground storage tanks or evidence of existing underground storage tanks was observed during the site reconnaissance.
Odors	No odors indicative of hazardous materials or petroleum material impacts were noted at the time of the reconnaissance.
Pools of Potentially Hazardous Liquid	No pools of potentially hazardous liquid were observed within the Property at the time of our reconnaissance.
Drums	No drums were observed on the Property at the time of the reconnaissance.
Polychlorinated Biphenyls (PCBs)	No PCB-containing materials, including transformers, were observed within the Property during our site reconnaissance.
Hazardous Substances and Petroleum Product Containers	No hazardous substance or petroleum product containers were observed on the Property at the time of our reconnaissance.
Pits, Ponds, and Lagoons	No pits, ponds or lagoons were observed within the Property at the time of our reconnaissance.
Stained Soil/Pavement	No stained soil or pavement was observed within the Property at the time of our reconnaissance.
Stressed Vegetation	No signs of stressed vegetation were observed on the Property at the time of our reconnaissance.

FEATURE TYPE	OBSERVATIONS
Solid Waste/Debris	We observed small items stored within the central portion of the Property (Figure 4).
Stockpiles/Fill Material	Minor stockpiles were observed from prior grading activities. We understand approximately 25,000 cubic yards of soil was imported to the site as excess dirt from a nearby residential subdivision the owner is developing (See Section 2.0 and 5.0). A limited soil sampling program was conducted to determine if soils had been impacted by past agricultural practices from the import soil site origin. The program included the recovery of two near surface soil samples analyzed for organochlorine pesticides. No compounds were reported above laboratory detection limits.
Wastewater	No wastewater conveyance systems were observed at the Property during the reconnaissance. We observed signage for an underground water utility line within the central portion of the Property.
Wells	No wells were found within the Property during our site reconnaissance. There are 7 abandoned/plugged oil wells (Figure 2). No visual evidence of the oil wells was noted. We are aware 30monitoring wells formally operated on the Property, which were abandoned under permit.
Septic Systems	No septic systems were found within the Property during our site reconnaissance.

4.3 ASBESTOS-CONTAINING MATERIALS AND LEAD-BASED PAINT

No structures are currently located on the Property.

5.0 INTERVIEWS

Mr. Dick Sestero completed an environmental site questionnaire pertaining to user-related applicable environmental information regarding the Property. In the questionnaire, Mr. Sestero did identify potentially environmentally related issues with the Property. Approximately 25,000 cubic yards of undocumented “clean” soil was imported to the site as excess dirt from a nearby residential subdivision the owner is developing (see Modified Phase I ESA performed by ENGEO in 1992, summarized in Section 2.0). Mr. Sestero indicated there were several oil, wells, oil pipelines, and a small tank farm on the property, which were, operated by Shell Oil and later, Occidental Petroleum. He also mentioned the Property was previously used for grazing and row crops. The tanks and pipelines were removed and the wells were abandoned in the late 1990s. Groundwater was monitored and cleared and impacted oily dirt was remediated under oversight of RWQCB. We understand soil excavated from impacted oil well locations was bioremediated onsite at one location and following successful remediation, this material was used to backfill well excavations. A no further action letter on March 7, 2000 and March 29, 2001. The questionnaire is presented in its entirety in Appendix G.

6.0 FINDINGS AND CONCLUSIONS

This assessment included a review of local, state, tribal, and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources. A reconnaissance of the Property was conducted to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially

hazardous materials and interviews with persons knowledgeable about current and past site use.

The site reconnaissance and records review did find documentation of past soil or groundwater impairments, which were subsequently mitigated and provided closure by RWQCB in 1996. A review of regulatory databases maintained by county, state, tribal, and federal agencies found documentation of hazardous materials discharge on the Property; however these previous impacts were mitigated under the oversight of the RWQCB and provided closure. No contaminated facilities were identified within the appropriate American Society for Testing and Materials (ASTM) search distances that would reasonably be expected to impact the Property.

Based on the findings of this assessment, one Recognized Environmental Conditions (RECs), one historical RECs, and no controlled RECs were identified for the Property.

The following historical REC was identified:

Seven oil production wells operated on the Property from 1962 to 1996 (Figure 2). These were decommissioned and abandoned in accordance with the Department of Oil and Gas (now CalGEM) regulations. Records of abandonment were reviewed on the CalGEM website. The Property also contained an above-ground storage tank complex for the separation of oil, condensate and water which was decommission by 1996. The former Brentwood crude oil pipeline also operated within the Property (Figure 2). Remedial activities for the decommissioning of the well sites and tank farm included soil, excavation, bioremediation, soil sampling/analysis and groundwater monitoring. Confirmation sampling and laboratory testing demonstrated successful remediation to the approved cleanup objectives set forth by the Central Valley RWQCB. Closure letters for the Sullenger Tank Farm, Ward Tank Farm, and wells: 3-10, 34-10, 32-10, and 38-10 were issued in 1996 through 2000 by the Central Valley RWQCB. Confirmation samples obtained from the bioremediated soil stockpile had TPH concentrations up to 1,800 parts per million (ppm) which exceed current TPH residential screening levels. It is likely that TPH concentrations have significantly degraded over time. This can be confirmed with supplemental analysis. We understand this soil at the direction of RWQCB was used as a suitable backfill for oil well remedial excavations.
The following potential environmental REC was identified:

- Possible residual impacts could remain within the vicinity of the former oil wells, the former Brentwood crude oil pipeline, and the former tank farm. These wells were decommissioned and abandoned in accordance with the regulatory requirements of CalGEM.

ENGEO has performed a phase I environmental site assessment in general conformance with the scope and limitations of ASTM E1527-13 and the standards and practices of the All Appropriate Inquiry – Final Rule (40 Code of Federal Regulations Part 312).

ENGEO recommends the following:

<u>Former Oil Well Operations</u>

Seven oils wells were decommissioned and abandoned in accordance with the Department of Oil and Gas (CalGEM) requirements and a former above ground tank/processing area were located within the Property boundaries. The following is recommended to address the past oil production activities:

- Limited phase II environmental site assessment in the area of the former tank farm and oil wells.
- A topographic survey of Well 36-10.
- Any remaining abandoned oil pipelines found within the areas of the project site planned for development should be removed during construction.
- Preparation of a Soil Management Plan (SMP) could be prepared for the Property prior to construction activity. This SMP could outline procedures and guidelines for handling unanticipated impacted material associated with former oil site use. If indicators of apparent soil contamination (soil staining, odors, debris fill material, etc.) are encountered at the project site, specifically in the vicinity of abandoned oil wells, or during removal of abandoned oil pipelines, the impacted area should be isolated from surrounding, non-impacted areas. The project environmental professional shall obtain samples of the potentially impacted soil for analysis of the contaminants of concern and comparison with current applicable regulatory residential screening levels.
- Prior to final map approval, the project applicant shall submit to the City of Brentwood Engineering Department, for review and approval, plot plans which show that future structures will not be located within 10 feet of the seven on-site abandoned oil wells.

7.0 LIMITATIONS

7.1 SIGNIFICANT ASSUMPTIONS OR DEVIATIONS FROM ASTM STANDARD PRACTICE

There were no significant deviations from the ASTM standard.

7.2 OPINIONS AND DATA GAPS

It is our opinion that the findings of this study are based on a sufficient level of information obtained during our contracted scope of services to render a conclusion as to whether additional appropriate investigation is required to identify the presence or likely presence of a REC. The following data gap was identified:

- We did not receive a response from the Central Valley RWQCB regarding files pertaining to their oversight of the former oil wells and facilities. We were provided some closure documents from West Coast Home Builders, Inc. which included closure letters for Wells 3-10, 34-10, 32-10, and 38-10, issued in 1996 through 2000 by the Central Valley RWQCB.

The data gaps identified during this process may affect the conclusions as to the presence or lack of presence of RECs at the Property.

7.3 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

The professional staff at ENGEO strives to perform its services in a proper and professional manner with reasonable care and competence but is not infallible. The recommendations and conclusions presented in this report were based on the findings of our study, which were developed solely from the contracted services. The findings of the report are based in part on

contracted database research, out-of-house reports, and personal communications. The opinions formed by ENGEO are based on the assumed accuracy of the relied upon data in conjunction with our relevant professional experience related to such data interpretation. ENGEO assumes no liability for the validity of the materials relied upon in the preparation of this report.

This document must not be subject to unauthorized reuse; that is, reuse without written authorization of ENGEO. Such authorization is essential because it requires ENGEO to evaluate the document's applicability given new circumstances, not the least of which is passage of time. The findings from a phase I environmental site assessment are valid for one year after completion of the report. Updates of portions of the assessment may be necessary after a period of 180 days after completion.

This phase I environmental site assessment is not intended to represent a complete soil, soil gas, or groundwater characterization, nor define the depth or extent of soil, soil gas, or groundwater contamination. It is intended to provide an evaluation of potential environmental concerns associated with the use of the Property. A more extensive assessment that would include a subsurface exploration with laboratory testing of soil, soil gas, and groundwater samples could provide more definitive information concerning site-specific conditions. If additional assessment activities are considered for the Property and if other entities are retained to provide such services, ENGEO cannot be held responsible for any and all claims arising from or resulting from the performance of such services by other persons or entities. ENGEO can also not be held responsible from any and all claims arising or resulting from clarifications, adjustments, modifications, discrepancies or other changes necessary to reflect changed field or other conditions.

7.4 SPECIAL TERMS AND CONDITIONS

ENGEO has prepared this report for the exclusive use of our client, West Coast Home Builders, Inc. It is recognized and agreed that ENGEO has assumed responsibility only for undertaking the study for the Client. The responsibility for disclosures or reports to a third party and for remedial or mitigative action shall be solely that of the Client.

Laboratory testing of soil, soil gas, or groundwater samples was not within the scope of the contracted services. The assessment did not include an asbestos survey, an evaluation of lead-based paint, an inspection of light ballasts for polychlorinated biphenyls (PCBs), or a mold survey. A radon evaluation was not performed.

This report is based upon field and other conditions discovered at the time of preparation of ENGEO's assessment. Visual observations referenced in this report are intended only to represent conditions at the time of the reconnaissance. ENGEO would not be aware of site contamination, such as dumping and/or accidental spillage, that occurred subsequent to the reconnaissance conducted by ENGEO personnel.

SELECTED REFERENCES

Dibblee, Geologic Map of Antioch South and Brentwood Quadangle; Contra Costa County, California; 2006.

Google Maps (http://maps.google.com)

California Department of Water Resources (http://www.water.ca.gov/waterdatalibrary/)

California Department of Conservation (DOGGR) (http://maps.conservation.ca.gov/doms/doms-app.html)

California Department of Public Health – Radon Program– (https://www.cdph.ca.gov/Programs/CEH/DRSEM/CDPH%20Document%20Library/EMB/Radon/Radon%20Test%20Results.pdf).

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 39 December 3, 1976.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 31 August 10, 1986.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 36 August 10, 1986.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 3-10; August 18, 1992.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 32-10; May 6, 1993.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 34-10; August 18, 1992.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 38-10; February 28, 1994.

Fluor Daniel GTI; Request for Site Closure – Former Ward 3-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 2, 1996.

Fluor Daniel GTI; Request for Site Closure – Former Ward 34-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 2, 1996.

Fluor Daniel GTI; Request for Site Closure – Former Ward Tank Farm Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 2, 1996.

Fluor Daniel GTI; Groundwater Monitoring and Sampling Activities; Ward 3-10 Lease; Former OXY Oil and Gas Field; Brentwood, California; March 18, 1998.

Fluor Daniel GTI; Groundwater Monitoring and Sampling Activities; Ward 34-10 Lease; Former OXY Oil and Gas Field; Brentwood, California; March 18, 1998.

Fluor Daniel GTI; Groundwater Monitoring and Sampling Activities; Ward Tank Farm Lease; Former OXY Oil and Gas Field; Brentwood, California; March 18, 1998.

Groundwater Technology: Remedial Action Plan; Various Oxy/Shell/Apache Lease Sites; Brentwood Oil Field; Brentwood, California; January 19, 1994.

Groundwater Technology; Additional Assessment Report; Remediation Action Plan Modifications; Various Oxy/Shell/Apache E & P Lease Sites; Brentwood Oil Field; Brentwood, California; December 13, 1994.

Groundwater Technology; Human Health Based Soil Remediation Target Concentrations Report; Oxy USA, Inc.; Oil and Gas Field; Brentwood/Antioch, California; February 23, 1995.

ENGEO; Phase I Environmental Site Assessment; Elissondo Property; Brentwood, California; November 8, 1991.

RWQCB; Request for Site Closure – Former Ward 32-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 19, 1996.

RWQCB; Request for Site Closure – Former Ward 35-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 19, 1996.

RWQCB; Request for Site Closure – Former Ward 37-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 19, 1996.

RWQCB; Request for Site Closure – Former Ward 38-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 19, 1996.

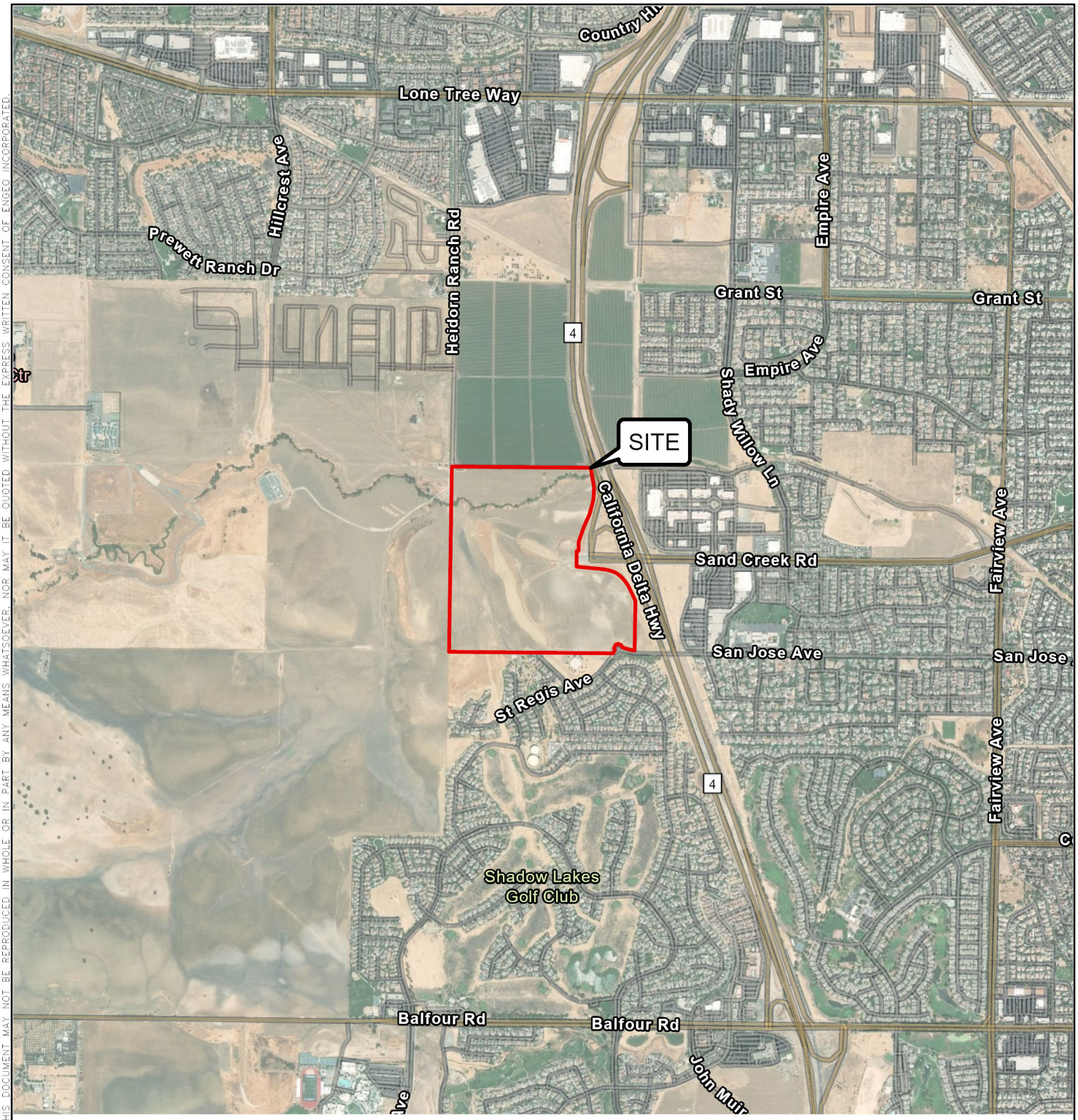
ENGEO; Phase I Environmental Site Assessment; Elissondo Property; Brentwood, California; June 16, 1999.

RWQCB; No Further Action Required; Brentwood Oil and Gas Field, Contra Costa County; July 7, 2000.



FIGURES

FIGURE 1: Vicinity Map
FIGURE 2: Site Plan
FIGURE 3: Assessor's Parcel Map
FIGURE 4: Site Photographs



BASEMAP SOURCE: ESRI MAPPING SERVICE 2017

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VICINITY MAP

BRIDLE GATE

BRENTWOOD, CALIFORNIA

PROJECT NO. :	3359.210.001
SCALE:	AS SHOWN
DRAWN BY: JV	CHECKED BY: BES

FIGURE NO. 1

PATH: G:\DRAFTING\PROJECTS_PROMO\2020\P2020000507\ENVIRONMENTAL\ESA\P2020000507.APRX
LAYOUT: VICINITY USER: JVERGARA

ORIGINAL FIGURE PRINTED IN COLOR

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N

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FEET

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- PG&E UNDERGROUND GAS PIPELINE
- FORMER BRENTWOOD CRUDE OIL PIPELINE
- ⑨ PHOTO LOCATIONS
- 39 ABANDONED WELLHEAD (ISAKSON, 2019)
- 36-10 ABANDONED WELLHEAD (CALGEM, 2020) (APPROXIMATE - LOCATION NOT SURVEYED)

BASE MAP SOURCE: ESRI MAPPING SERVICE 2017 AND DEPT. OF CONSERVATION

ENGEO Expect Excellence

SITE PLAN
BRIDLE GATE
BRENTWOOD, CALIFORNIA

PROJECT NO. : 3359.210.001
SCALE: AS SHOWN
DRAWN BY: JV
CHECKED BY: BES

FIGURE NO. 2

PATH: G:\DRAFTING\PROJECTS_PROMO\2020\P2020000507\ENVIRONMENTAL\ESA\P2020000507.APRX
LAYOUT: ESA FIG 2 USER: JVERGARA

ORIGINAL FIGURE PRINTED IN COLOR



BASEMAP SOURCE: ESRI MAPPING SERVICE

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ASSESSOR'S PARCEL MAP

BRIDLE GATE

BRENTWOOD, CALIFORNIA

PROJECT NO. :	3359.210.001
SCALE:	AS SHOWN
DRAWN BY: JV	CHECKED BY: BES

FIGURE NO. 3

PATH: G:\DRAFTING\PROJECTS_PROMO\2020\P2020000507\ENVIRONMENTAL\ESA\P2020000507.APRX
LAYOUT: PARCEL USER: JVERGARA

ORIGINAL FIGURE PRINTED IN COLOR



PETROLEUM UNDERGROUND LINE ONSITE



UNDERGROUND WATER UTILITY



STORM DRAIN INLET



STORED ITEMS WITHIN CENTRAL PORTION OF SITE



VIEW OF SITE FROM NORTHWEST CORNER



VIEW OF SITE FACING SOUTHEAST

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SITE PHOTOGRAPHS

BRIDLE GATE

BRENTWOOD, CALIFORNIA

PROJECT NUMBER: **3359.210.001**		FIGURE NO. 4A
SCALE: **NO SCALE**		
DRAWN BY: **JV**	CHECKED BY: **BES**	

ORIGINAL FIGURE PRINTED IN COLOR



MINOR STOCKPILED MATERIAL



VIEW OF SITE FACING WEST



SAND CREEK

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SITE PHOTOGRAPHS

BRIDLE GATE

BRENTWOOD, CALIFORNIA

PROJECT NUMBER: **3359.210.001**		FIGURE NO. 4B
SCALE: **NO SCALE**		
DRAWN BY: **JV**	CHECKED BY: **BES**	

ORIGINAL FIGURE PRINTED IN COLOR



APPENDIX A

ENVIRONMENTAL DATA RESOURCES, INC.

Radius Map Report

Bridlegate
Sand Creek Road and San Jose Ave.
Brentwood, CA 94513

Inquiry Number: 06010925.2r
March 17, 2020

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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GEOCHECK ADDENDUM

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

SAND CREEK ROAD AND SAN JOSE AVE.
BRENTWOOD, CA 94513

COORDINATES

Latitude (North):	37.9431970 - 37° 56' 35.50''
Longitude (West):	121.7468410 - 121° 44' 48.62''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	610113.8
UTM Y (Meters):	4200047.5
Elevation:	204 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5640376 BRENTWOOD, CA
Version Date:	2012
West Map:	5640044 ANTIOCH SOUTH, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140606
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
SAND CREEK ROAD AND SAN JOSE AVE.
BRENTWOOD, CA 94513

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	BRIDLE GATE	INTERSECTION OF HWY	NPDES, CIWQS		TP
A2	BRIDLE GATE COMMERCI	SAN CREEK RD	CIWQS		TP
A3	BRIDLE GATE RESIDENT	SAND CREEK RD	CIWQS		TP
4	SAND CREEK STN	HEIDORN RANCH & SAND	CONTRA COSTA CO. SITE LIST	Lower	38, 0.007, NW
5	VICTORIA SECRET STOR	2845 SAND CREEK RD S	CERS HAZ WASTE	Lower	42, 0.008, NNE
6	SHELL YARD	3052 HEIDORN RANCH R	CPS-SLIC, CDL, CERS	Lower	366, 0.069, NW
B7	THE TALBOTS INC. #11	2565 SAND CREEK RD S	CERS HAZ WASTE	Lower	488, 0.092, East
B8	LENSCRAFTERS #5612	2565 SAND CREEK RD S	HAZNET, CONTRA COSTA CO. SITE LIST, HWTS	Lower	488, 0.092, East
B9	LENSCRAFTERS #5612	2565 SAND CREEK RD	CERS HAZ WASTE, CONTRA COSTA CO. SITE LIST	Lower	488, 0.092, East
B10	LENSCRAFTERS #5612	2565 SAND CREEK RD S	RCRA NonGen / NLR	Lower	488, 0.092, East
B11		2565 SAND CREEK RD S	RCRA NonGen / NLR	Lower	488, 0.092, East
B12	ROUND TABLE PIZZA	2540 SAND CREEK RD	CONTRA COSTA CO. SITE LIST	Lower	503, 0.095, East
B13	EXPRESS FASHION OPER	2545 SAND CREEK RD	CERS HAZ WASTE, HAZNET, CONTRA COSTA CO. SITE...	Lower	537, 0.102, East
B14	EXPRESS 2007	2545 SANDCREEK ROAD	RCRA NonGen / NLR	Lower	537, 0.102, East
15	BRENTWOOD SHOPPING C	2200 SAN JOSE AVENUE	CPS-SLIC, CERS	Lower	547, 0.104, ESE
B16	ROSS DRESS FOR LESS	2520 SAND CREEK RD	CERS HAZ WASTE, HAZNET, CONTRA COSTA CO. SITE...	Lower	565, 0.107, East
B17	ROSS DRESS FOR LESS	2520 SAND CREEK RD	RCRA NonGen / NLR	Lower	565, 0.107, East
B18	HOLLISTER CO	2505 SAND CREEK RD	CERS HAZ WASTE, CONTRA COSTA CO. SITE LIST	Lower	651, 0.123, East
B19	BATH & BODY WORKS #2	2505 SAND CREEK RD S	CERS HAZ WASTE, CERS	Lower	651, 0.123, East
B20	BATH & BODY WORKS #2	2505 SAND CREEK RD S	RCRA NonGen / NLR	Lower	651, 0.123, East
B21	HOLLISTER CO	2505 SAND CREEK RD	RCRA NonGen / NLR	Lower	651, 0.123, East
C22	KELLY-MOORE PAINT CO	2480 SAND CREEK RD	RCRA NonGen / NLR	Lower	745, 0.141, East
C23	KELLY-MOORE PAINT CO	2480 SAND CREEK RD	CERS HAZ WASTE, HAZNET, CONTRA COSTA CO. SITE...	Lower	745, 0.141, East
C24	PARTY CITY #444 BREN	2470 SAND CREEK RD	CERS HAZ WASTE, CHMIRS, HAZNET, CONTRA COSTA CO..	Lower	792, 0.150, East
C25	PARTY CITY CORPORATI	2470 SAND CREEK RD	RCRA NonGen / NLR	Lower	792, 0.150, East
C26	REI #126	2475 S SAND CREEK RD	CONTRA COSTA CO. SITE LIST	Lower	796, 0.151, East
C27	HOMEGOODS 0237	2460 SAND CREEK RD	RCRA NonGen / NLR	Lower	840, 0.159, East
C28	HOMEGOODS 0237	2460 SAND CREEK RD	CERS HAZ WASTE, CONTRA COSTA CO. SITE LIST	Lower	840, 0.159, East
C29	ULTA BEAUTY 353	2465 SAND CREEK RD	RCRA NonGen / NLR	Lower	841, 0.159, East
C30	ULTA BEAUTY 353	2465 SAND CREEK RD	CERS HAZ WASTE, HAZNET, CONTRA COSTA CO. SITE...	Lower	841, 0.159, East
C31	MAC 695434	2455 SAND CREEK RD S	HAZNET, NPDES, CONTRA COSTA CO. SITE LIST, CIWQS,...	Lower	888, 0.168, East
C32	MAC 12000153	2455 SAND CREEK RD S	CERS HAZ WASTE	Lower	888, 0.168, East
C33	MAC 695434	2455 SANDCREEK RD SP	RCRA NonGen / NLR	Lower	888, 0.168, East
C34	MAC 12000153	2455 SANDCREEK	RCRA NonGen / NLR	Lower	888, 0.168, East
C35	TJ MAXX 0858	2450 SAND CREEK RD	CERS HAZ WASTE, HAZNET, CONTRA COSTA CO. SITE...	Lower	888, 0.168, East
C36	TJ MAXX 0858	2450 SAND CREEK RD	RCRA NonGen / NLR	Lower	888, 0.168, East
D37	SHELL PURCHASE	SAND CREEK ROAD	HIST UST, EMI, CERS	Lower	912, 0.173, NE
C38	COSMOPROF BEAUTY	2440 SAND CREEK RD S	RCRA NonGen / NLR	Lower	936, 0.177, East
C39	COSMOPROF BEAUTY	2440 SAND CREEK RD E	CONTRA COSTA CO. SITE LIST	Lower	936, 0.177, East

MAPPED SITES SUMMARY

Target Property Address:
SAND CREEK ROAD AND SAN JOSE AVE.
BRENTWOOD, CA 94513

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
C40	COSMOPROF BEAUTY	2440 SAND CREEK RD S	CERS HAZ WASTE	Lower	936, 0.177, East
41	BJ'S RESTAURANT & BR	2365 SAND CREEK RD	NPDES, CONTRA COSTA CO. SITE LIST	Lower	1078, 0.204, East
E42	RALEY'S #336	2400 SANDCREEK RD	RCRA NonGen / NLR, FINDS	Lower	1128, 0.214, East
E43	RALEYS #336	2400 SAND CREEK RD	CONTRA COSTA CO. SITE LIST	Lower	1128, 0.214, East
D44	EQUILON PIPLINE CO L	3052 SAND CREEK RD	CONTRA COSTA CO. SITE LIST	Lower	1129, 0.214, NE
F45	LOMA VISTA ELEMENTAR	2110 SAN JOSE AVENUE	ENVIROSTOR, SCH	Lower	1201, 0.227, ESE
F46	T-MOBILE WEST CORP/B	2110 SAN JOSE AVE	CONTRA COSTA CO. SITE LIST	Lower	1201, 0.227, ESE
E47	RED ROBIN #590 (BREN	2385 SAND CREEK RD	CONTRA COSTA CO. SITE LIST, CERS	Lower	1243, 0.235, East
48	TERMO COMPANY	SAN JOSE AVE	LUST, HIST CORTESE, CERS	Lower	1882, 0.356, ESE
49	EMPIRE ELEMENTARY SC	EMPIRE AVENUE/AMBER	ENVIROSTOR, SCH	Lower	4212, 0.798, NE
50	MILES-FENELL PROPERT	2200 SHADY WILLOW LA	ENVIROSTOR, VCP	Lower	4462, 0.845, NNE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 9 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
BRIDLE GATE INTERSECTION OF HWY BRENTWOOD, CA 94513	NPDES CIWQS	N/A
BRIDLE GATE COMMERCI SAN CREEK RD BRENTWOOD, CA 94513	CIWQS	N/A
BRIDLE GATE RESIDENT SAND CREEK RD BRENTWOOD, CA 94513	CIWQS	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

EXECUTIVE SUMMARY

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
UST ---------- Active UST Facilities
AST ---------- Aboveground Petroleum Storage Tank Facilities
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP ---------- Voluntary Cleanup Priority Listing
VCP ---------- Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS ---------- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

EXECUTIVE SUMMARY

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT	Waste Management Unit Database
SWRCY	Recycler Database
HAULERS	Registered Waste Tire Haulers Listing
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands
ODI	Open Dump Inventory
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS	Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL	Delisted National Clandestine Laboratory Register
HIST Cal-Sites	Historical Calsites Database
CDL	Clandestine Drug Labs
Toxic Pits	Toxic Pits Cleanup Act Sites
US CDL	National Clandestine Laboratory Register
PFAS	PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

SWEEPS UST	SWEEPS UST Listing
CERS TANKS	California Environmental Reporting System (CERS) Tanks
CA FID UST	Facility Inventory Database

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties

PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
DOCKET HWC	Hazardous Waste Compliance Docket Listing
UXO	Unexploded Ordnance Sites
ECHO	Enforcement & Compliance History Information
FUELS PROGRAM	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
DRYCLEANERS	Cleaner Facilities
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
HAZNET	Facility and Manifest Data
ICE	ICE
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
MINES	Mines Site Location Listing
MWMP	Medical Waste Management Program Listing
PEST LIC	Pesticide Regulation Licenses Listing
PROC	Certified Processors Database
Notify 65	Proposition 65 Records
UIC	UIC Listing
UIC GEO	UIC GEO (GEOTRACKER)
WASTEWATER PITS	Oil Wastewater Pits Listing
WDS	Waste Discharge System
WIP	Well Investigation Program Case List
MILITARY PRIV SITES	MILITARY PRIV SITES (GEOTRACKER)
PROJECT	PROJECT (GEOTRACKER)
WDR	Waste Discharge Requirements Listing
CERS	CERS
NON-CASE INFO	NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS	OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS	PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT	SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)
MINES MRDS	Mineral Resources Data System

HWTS Hazardous Waste Tracking System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP EDR Proprietary Manufactured Gas Plants
EDR Hist Auto EDR Exclusive Historical Auto Stations
EDR Hist Cleaner EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF Recovered Government Archive Solid Waste Facilities List
RGA LUST Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 10/28/2019 has revealed that there are 3 ENVIROSTOR sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LOMA VISTA ELEMENTAR	***2110 SAN JOSE AVENUE***	***ESE 1/8 - 1/4 (0.227 mi.)***	***F45***	***167***

Facility Id: 7820007
Status: No Action Required

EMPIRE ELEMENTARY SC	***EMPIRE AVENUE/AMBER***	***NE 1/2 - 1 (0.798 mi.)***	***49***	***174***
Facility Id: 1010005 Status: Certified				
MILES-FENELL PROPERT	***2200 SHADY WILLOW LA***	***NNE 1/2 - 1 (0.845 mi.)***	***50***	***176***
Facility Id: 60001996 Status: No Further Action				

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TERMO COMPANY	***SAN JOSE AVE***	***ESE 1/4 - 1/2 (0.356 mi.)***	***48***	***173***
Database: LUST REG 5, Date of Government Version: 07/01/2008 Status: Case Closed				

CPS-SLIC: Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the CPS-SLIC list, as provided by EDR, has revealed that there are 2 CPS-SLIC sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELL YARD	***3052 HEIDORN RANCH R***	***NW 0 - 1/8 (0.069 mi.)***	***6***	***16***
Database: CPS-SLIC, Date of Government Version: 12/09/2019 Database: SLIC REG 5, Date of Government Version: 04/01/2005 Facility Status: Completed - Case Closed Global Id: SL0601369421				
BRENTWOOD SHOPPING C	***2200 SAN JOSE AVENUE***	***ESE 0 - 1/8 (0.104 mi.)***	***15***	***39***
Database: CPS-SLIC, Date of Government Version: 12/09/2019 Database: SLIC REG 5, Date of Government Version: 04/01/2005 Facility Status: Completed - Case Closed Global Id: SL0601334843				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

SCH: This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category. depending on the level of threat to public health and safety or the. environment they pose.

A review of the SCH list, as provided by EDR, and dated 10/28/2019 has revealed that there is 1 SCH site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LOMA VISTA ELEMENTAR	***2110 SAN JOSE AVENUE***	***ESE 1/8 - 1/4 (0.227 mi.)***	***F45***	***167***
Facility Id: 7820007				
Status: No Action Required				

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 10/21/2019 has revealed that there are 14 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
VICTORIA SECRET STOR	2845 SAND CREEK RD S	NNE 0 - 1/8 (0.008 mi.)	5	14
THE TALBOTS INC. #11	2565 SAND CREEK RD S	E 0 - 1/8 (0.092 mi.)	B7	17
LENSCRAFTERS #5612	***2565 SAND CREEK RD***	***E 0 - 1/8 (0.092 mi.)***	***B9***	***23***
EXPRESS FASHION OPER	***2545 SAND CREEK RD***	***E 0 - 1/8 (0.102 mi.)***	***B13***	***34***
ROSS DRESS FOR LESS	***2520 SAND CREEK RD***	***E 0 - 1/8 (0.107 mi.)***	***B16***	***40***
HOLLISTER CO	***2505 SAND CREEK RD***	***E 0 - 1/8 (0.123 mi.)***	***B18***	***59***
BATH & BODY WORKS #2	***2505 SAND CREEK RD S***	***E 0 - 1/8 (0.123 mi.)***	***B19***	***63***
KELLY-MOORE PAINT CO	***2480 SAND CREEK RD***	***E 1/8 - 1/4 (0.141 mi.)***	***C23***	***71***
PARTY CITY #444 BREN	***2470 SAND CREEK RD***	***E 1/8 - 1/4 (0.150 mi.)***	***C24***	***79***
HOMEGOODS 0237	***2460 SAND CREEK RD***	***E 1/8 - 1/4 (0.159 mi.)***	***C28***	***90***
ULTA BEAUTY 353	***2465 SAND CREEK RD***	***E 1/8 - 1/4 (0.159 mi.)***	***C30***	***95***
MAC 12000153	2455 SAND CREEK RD S	E 1/8 - 1/4 (0.168 mi.)	C32	130
TJ MAXX 0858	***2450 SAND CREEK RD***	***E 1/8 - 1/4 (0.168 mi.)***	***C35***	***136***
COSMOPROF BEAUTY	2440 SAND CREEK RD S	E 1/8 - 1/4 (0.177 mi.)	C40	161

Local Lists of Registered Storage Tanks

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELL PURCHASE	***SAND CREEK ROAD***	***NE 1/8 - 1/4 (0.173 mi.)***	***D37***	***156***
Facility Id: 00000024874				

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/16/2019 has revealed that there are 15 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LENSCRAFTERS #5612 EPA ID:: CAL000338146	2565 SAND CREEK RD S	E 0 - 1/8 (0.092 mi.)	B10	31
Not reported EPA ID:: CAL000402609	2565 SAND CREEK RD S	E 0 - 1/8 (0.092 mi.)	B11	33
EXPRESS 2007 EPA ID:: CAL000426403	2545 SANDCREEK ROAD	E 0 - 1/8 (0.102 mi.)	B14	38
ROSS DRESS FOR LESS EPA ID:: CAL000397536	2520 SAND CREEK RD	E 0 - 1/8 (0.107 mi.)	B17	57
BATH & BODY WORKS #2 EPA ID:: CAL000427473	2505 SAND CREEK RD S	E 0 - 1/8 (0.123 mi.)	B20	68
HOLLISTER CO EPA ID:: CAL000333470	2505 SAND CREEK RD	E 0 - 1/8 (0.123 mi.)	B21	69
KELLY-MOORE PAINT CO EPA ID:: CAL000332511	2480 SAND CREEK RD	E 1/8 - 1/4 (0.141 mi.)	C22	70
PARTY CITY CORPORATI EPA ID:: CAL000417986	2470 SAND CREEK RD	E 1/8 - 1/4 (0.150 mi.)	C25	87
HOMEGOODS 0237 EPA ID:: CAL000401789	2460 SAND CREEK RD	E 1/8 - 1/4 (0.159 mi.)	C27	89
ULTA BEAUTY 353 EPA ID:: CAL000388869	2465 SAND CREEK RD	E 1/8 - 1/4 (0.159 mi.)	C29	94
MAC 695434 EPA ID:: CAR000264093	2455 SANDCREEK RD SP	E 1/8 - 1/4 (0.168 mi.)	C33	133
MAC 12000153 EPA ID:: CAL000423933	2455 SANDCREEK	E 1/8 - 1/4 (0.168 mi.)	C34	135
TJ MAXX 0858 EPA ID:: CAL000383025	2450 SAND CREEK RD	E 1/8 - 1/4 (0.168 mi.)	C36	155
COSMOPROF BEAUTY EPA ID:: CAL000429726	2440 SAND CREEK RD S	E 1/8 - 1/4 (0.177 mi.)	C38	159
RALEY'S #336 EPA ID:: CAR000126821	***2400 SANDCREEK RD***	***E 1/8 - 1/4 (0.214 mi.)***	***E42***	***165***

EXECUTIVE SUMMARY

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there is 1 HIST CORTESE site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TERMO COMPANY Reg Id: 070007	***SAN JOSE AVE***	***ESE 1/4 - 1/2 (0.356 mi.)***	***48***	***173***

CONTRA COSTA CO. SITE LIST: Lists includes sites from the Underground Tank Program, Hazardous Waste Generator Program & Business Plan 12185 Program

A review of the CONTRA COSTA CO. SITE LIST list, as provided by EDR, and dated 12/02/2019 has revealed that there are 20 CONTRA COSTA CO. SITE LIST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SAND CREEK STN Facility Id: FA0030922	HEIDORN RANCH & SAND	NW 0 - 1/8 (0.007 mi.)	4	14
LENSCRAFTERS #5612 Facility Id: FA0036231	***2565 SAND CREEK RD S***	***E 0 - 1/8 (0.092 mi.)***	***B8***	***21***
LENSCRAFTERS #5612 Facility Id: FA0030589	***2565 SAND CREEK RD***	***E 0 - 1/8 (0.092 mi.)***	***B9***	***23***
ROUND TABLE PIZZA Facility Id: FA0042931	2540 SAND CREEK RD	E 0 - 1/8 (0.095 mi.)	B12	34
EXPRESS FASHION OPER Facility Id: FA0036913	***2545 SAND CREEK RD***	***E 0 - 1/8 (0.102 mi.)***	***B13***	***34***
ROSS DRESS FOR LESS Facility Id: FA0035793	***2520 SAND CREEK RD***	***E 0 - 1/8 (0.107 mi.)***	***B16***	***40***
HOLLISTER CO Facility Id: FA0033602 Facility Id: FA0037132 Facility Id: FA0040331	***2505 SAND CREEK RD***	***E 0 - 1/8 (0.123 mi.)***	***B18***	***59***
KELLY-MOORE PAINT CO Facility Id: FA0031456	***2480 SAND CREEK RD***	***E 1/8 - 1/4 (0.141 mi.)***	***C23***	***71***
PARTY CITY #444 BREN Facility Id: FA0038066	***2470 SAND CREEK RD***	***E 1/8 - 1/4 (0.150 mi.)***	***C24***	***79***
REI #126 Facility Id: FA0034018	2475 S SAND CREEK RD	E 1/8 - 1/4 (0.151 mi.)	C26	89
HOMEGOODS 0237 Facility Id: FA0035185	***2460 SAND CREEK RD***	***E 1/8 - 1/4 (0.159 mi.)***	***C28***	***90***
ULTA BEAUTY 353 Facility Id: FA0037657	***2465 SAND CREEK RD***	***E 1/8 - 1/4 (0.159 mi.)***	***C30***	***95***
MAC 695434 Facility Id: FA0038198	***2455 SAND CREEK RD S***	***E 1/8 - 1/4 (0.168 mi.)***	***C31***	***124***
TJ MAXX 0858	***2450 SAND CREEK RD***	***E 1/8 - 1/4 (0.168 mi.)***	***C35***	***136***

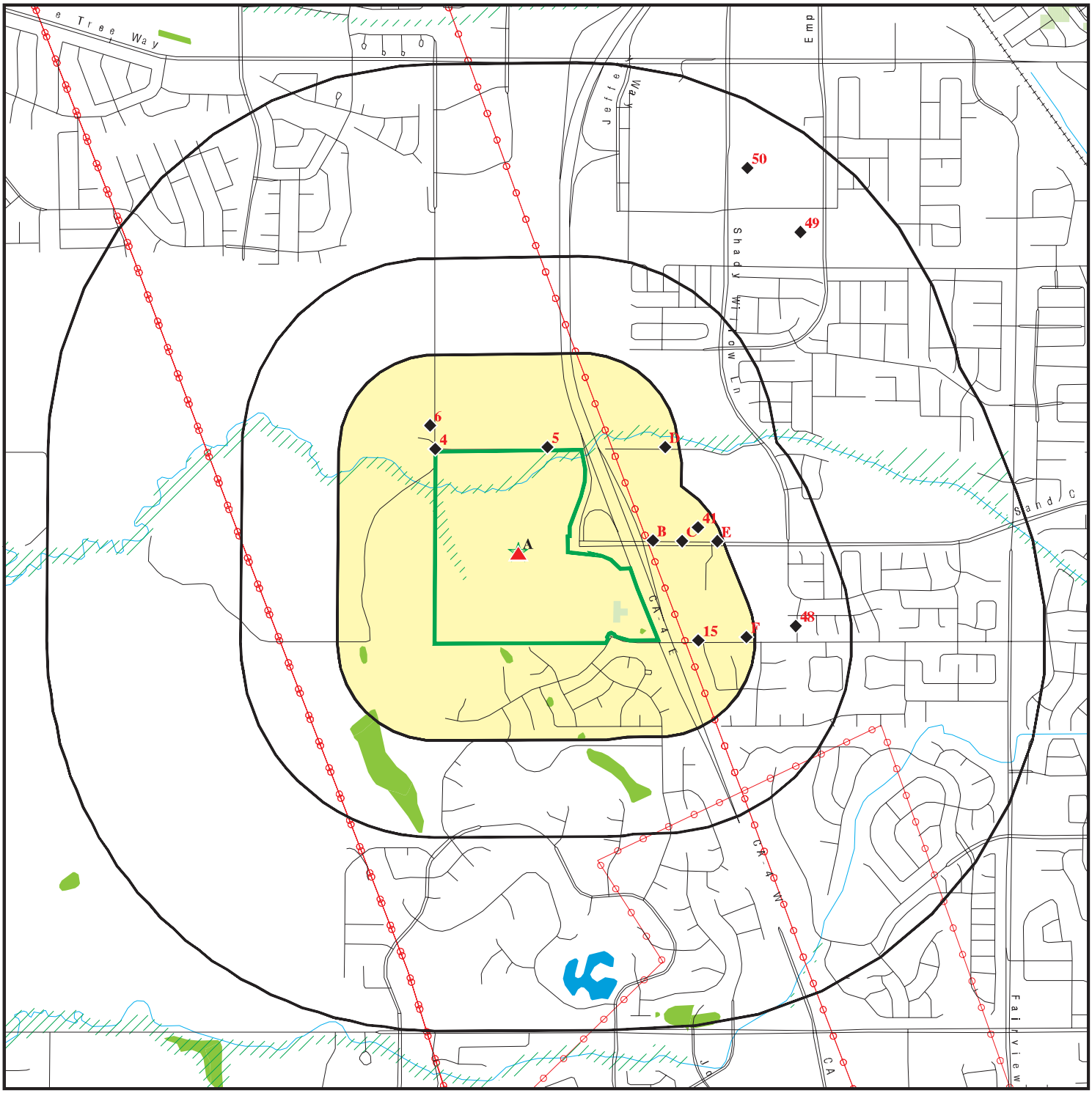
Facility Id: FA0035255				
COSMOPROF BEAUTY Facility Id: FA0039778	2440 SAND CREEK RD E	E 1/8 - 1/4 (0.177 mi.)	C39	160
BJ'S RESTAURANT & BR Facility Id: FA0042894	***2365 SAND CREEK RD***	***E 1/8 - 1/4 (0.204 mi.)***	***41***	***164***
RALEYS #336 Facility Id: FA0030141	2400 SAND CREEK RD	E 1/8 - 1/4 (0.214 mi.)	E43	167
EQUILON PIPLINE CO L Facility Id: FA0030744	3052 SAND CREEK RD	NE 1/8 - 1/4 (0.214 mi.)	D44	167
T-MOBILE WEST CORP/B Facility Id: FA0030789	2110 SAN JOSE AVE	ESE 1/8 - 1/4 (0.227 mi.)	F46	169
RED ROBIN #590 (BREN Facility Id: FA0042183	***2385 SAND CREEK RD***	***E 1/8 - 1/4 (0.235 mi.)***	***E47***	***170***

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

Site Name	Database(s)
SHEA HOMES PROPERTY (FORMERLY GERM	CPS-SLIC
THE TERMO COMPANY	CPS-SLIC

OVERVIEW MAP - 06010925.2R



0 1/4 1/2 1 Miles

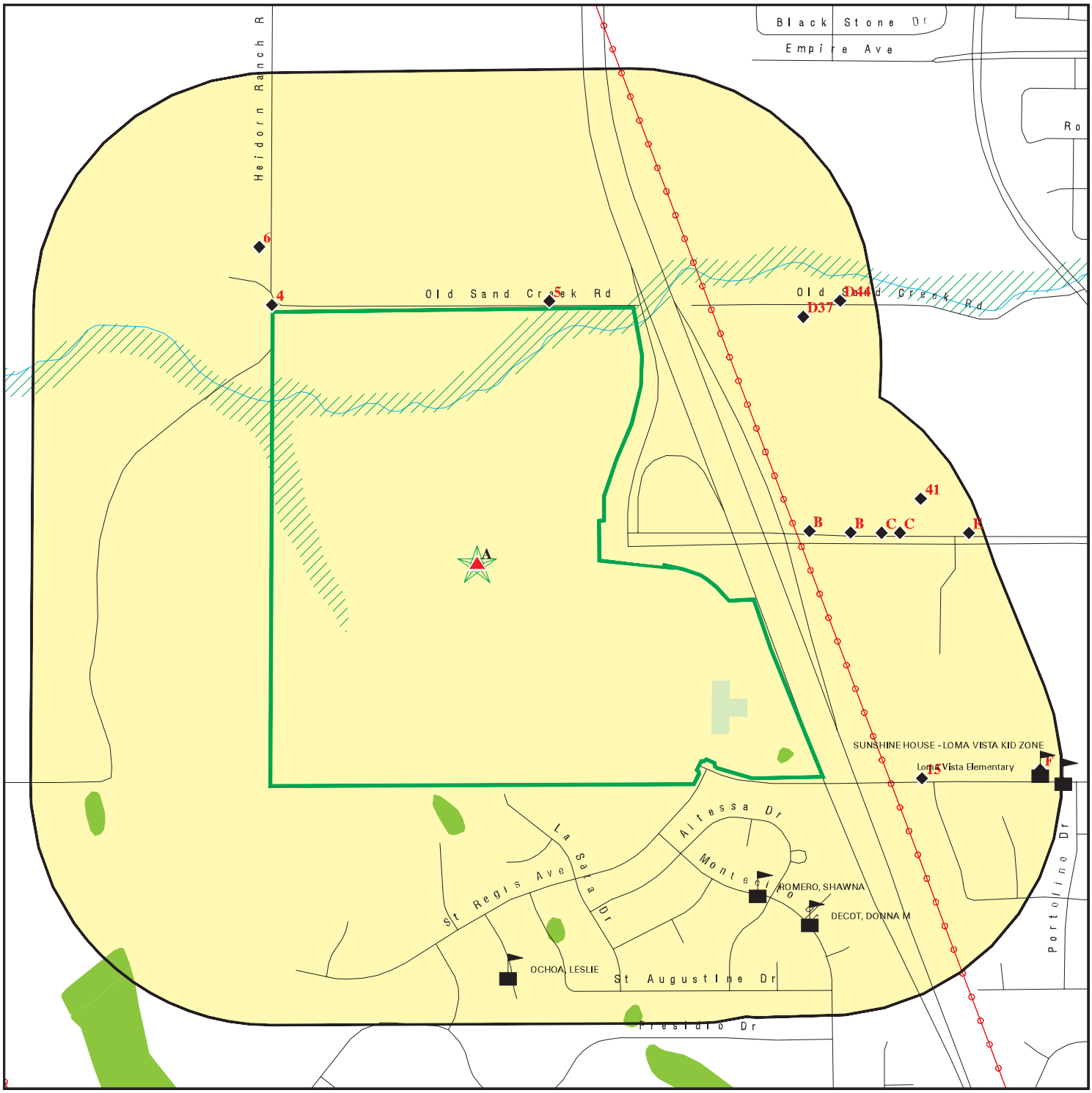
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Bridlegate	CLIENT:	Engeo Inc.
ADDRESS:	Sand Creek Road and San Jose Ave. Brentwood CA 94513	CONTACT:	Brooke Spruit
LAT/LONG:	37.943197 / 121.746841	INQUIRY #:	06010925.2r
		DATE:	March 17, 2020 12:06 pm

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DETAIL MAP - 06010925.2R



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/8 1/4 1/2 Miles

Indian Reservations BIA

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Bridlegate	CLIENT: Engeo Inc.
ADDRESS: Sand Creek Road and San Jose Ave. Brentwood CA 94513	CONTACT: Brooke Spruit
LAT/LONG: 37.943197 / 121.746841	INQUIRY #: 06010925.2r
	DATE: March 17, 2020 12:08 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	1	0	2	NR	3
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	1	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		2	0	0	NR	NR	2
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	1	NR	NR	NR	1
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		7	7	NR	NR	NR	14
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	1	NR	NR	NR	1
CERS TANKS	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		6	9	NR	NR	NR	15
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	1	NR	NR	1
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001	1	0	NR	NR	NR	NR	1
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
CONTRA COSTA CO. SITE LIST	0.250		7	13	NR	NR	NR	20
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001	3	0	NR	NR	NR	NR	3
CERS	0.001		0	NR	NR	NR	NR	0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		4	22	32	2	2	0	62

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **BRIDLE GATE** **NPDES** **S112142034**
Target **INTERSECTION OF HWY 4 BYPASS AND SAND CREEK RD** **CIWQS** **N/A**
Property **BRENTWOOD, CA 94513**

Site 1 of 3 in cluster A

Actual:
204 ft.

NPDES:

Name:	BRIDLE GATE
Address:	INTERSECTION OF HWY 4 BYPASS AND SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	5S07C364121
Regulatory Measure Type:	Construction
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Terminated
Status Date:	05/20/2015
Operator Name:	West Coast Home Builders Inc
Operator Address:	4021 Port Chicago Hwy
Operator City:	Concord
Operator State:	California
Operator Zip:	94520

NPDES as of 03/2018:

NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	5S
Regulatory Measure ID:	428828
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	5S07C364121
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	05/15/2015
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	07/16/2012
Processed Date:	07/19/2012
Status:	Terminated

BRIDLE GATE (Continued) **S112142034**

Status Date:	05/20/2015
Place Size:	20
Place Size Unit:	Acres
Contact:	Jason Tamayo
Contact Title:	Superintendent
Contact Phone:	925-383-7989
Contact Phone Ext:	Not reported
Contact Email:	SWPPPManager@discoverybuilders.com
Operator Name:	West Coast Home Builders Inc
Operator Address:	4021 Port Chicago Hwy
Operator City:	Concord
Operator State:	California
Operator Zip:	94520
Operator Contact:	Jay TorresMuga
Operator Contact Title:	Vice President
Operator Contact Phone:	925-671-7711
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	JTMugaSWPPP@discoverybuilders.com
Operator Type:	Private Business
Developer:	Bay Cities Paving and Grading Inc
Developer Address:	5029 Forni Drive
Developer City:	Concord
Developer State:	California
Developer Zip:	94520
Developer Contact:	Eric Barker
Developer Contact Title:	General Manager
Constype Linear Utility Ind:	N
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	grading and hauling dirt
Constype Other Ind:	Y
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	N
Receiving Water Name:	Not reported
Certifier:	Jay TorresMuga
Certifier Title:	Vice President
Certification Date:	16-JUL-12
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	CAS000002
Status:	Terminated
Agency Number:	0

BRIDLE GATE (Continued) **S112142034**

Region:	5S
Regulatory Measure ID:	428828
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	5S07C364121
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	07/19/2012
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	05/15/2015
Discharge Name:	West Coast Home Builders Inc
Discharge Address:	4021 Port Chicago Hwy
Discharge City:	Concord
Discharge State:	California
Discharge Zip:	94520
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported

BRIDLE GATE (Continued) **S112142034**

Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

CIWQS:

Name:	BRIDLE GATE
Address:	INTERSECTION OF HWY 4 BYPASS AND SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Agency:	West Coast Home Builders Inc
Agency Address:	4021 Port Chicago Hwy, Concord, CA 94520
Place/Project Type:	Construction - Other: grading and hauling dirt
SIC/NAICS:	Not reported
Region:	5S
Program:	CONSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water construction
Order Number:	2009-0009-DWQ
WDID:	5S07C364121
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	07/19/2012
Termination Date:	05/15/2015
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	37.943611
Longitude:	-121.748055

A2 **BRIDLE GATE COMMERCIAL PROJECT** **CIWQS** **S121624861**
Target **SAN CREEK RD** **N/A**
Property **BRENTWOOD, CA 94513**

Site 2 of 3 in cluster A

Actual:
204 ft.

CIWQS:

Name:	BRIDLE GATE COMMERCIAL PROJECT
Address:	SAN CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Agency:	West Coast Home Builders
Agency Address:	4021 Port Chicago Hwy, Concord, CA 94520

BRIDLE GATE COMMERCIAL PROJECT (Continued) **S121624861**

Place/Project Type:	Construction - Commercial
SIC/NAICS:	Not reported
Region:	5S
Program:	CONSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water construction
Order Number:	99-08DW
WDID:	5S07C345150
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	01/03/2007
Termination Date:	02/19/2009
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	Not reported
Longitude:	Not reported

A3 **BRIDLE GATE RESIDENTIAL PROJECT** **CIWQS** **S121624862**
Target **SAND CREEK RD** **N/A**
Property **BRENTWOOD, CA 94513**

Site 3 of 3 in cluster A

Actual: **204 ft.**

CIWQS:

Name:	BRIDLE GATE RESIDENTIAL PROJECT
Address:	SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Agency:	West Coast Home Builders
Agency Address:	4021 Port Chicago Hwy, Concord, CA 94520
Place/Project Type:	Construction - Residential
SIC/NAICS:	Not reported
Region:	5S
Program:	CONSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water construction
Order Number:	99-08DW
WDID:	5S07C345375
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	01/19/2007
Termination Date:	02/19/2009
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	Not reported
Longitude:	Not reported

4
NW
< 1/8
0.007 mi.
38 ft.

SAND CREEK STN
HEIDORN RANCH & SAND CREE
BRENTWOOD, CA 94513

CONTRA COSTA CO. SITE LIST **S105850335**
N/A

Relative:
Lower

Actual:
152 ft.

CONTRA COSTA CO. SITE LIST:

Name:	SAND CREEK STN
Address:	HEIDORN RANCH & SAND CREE
City:	BRENTWOOD
Facility ID:	FA0030922
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP GENERAL
Region:	CONTRA COSTA
Cupa Number:	707518

Name:	SAND CREEK STN
Address:	HEIDORN RANCH & SAND CREE
City:	BRENTWOOD
Facility ID:	FA0030922
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG GENERAL
Region:	CONTRA COSTA
Cupa Number:	707518

5
NNE
< 1/8
0.008 mi.
42 ft.

VICTORIA SECRET STORE #1411
2845 SAND CREEK RD SPC E-4
BRENTWOOD, CA 94513

CERS HAZ WASTE **S121781535**
N/A

Relative:
Lower

Actual:
140 ft.

CERS HAZ WASTE:

Name:	VICTORIA SECRET STORE #1411
Address:	2845 SAND CREEK RD SPC E-4
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	423488
CERS ID:	10737736
CERS Description:	Hazardous Waste Generator

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	09-29-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Affiliation:

Affiliation Type Desc:	Document Preparer
Entity Name:	ASHLEY CAMPBELL
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported

VICTORIA SECRET STORE #1411 (Continued) **S121781535**

Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200
Affiliation Type Desc:	Identification Signer
Entity Name:	Ashley Campbell
Entity Title:	ENVIRONMENTAL COMPLIANCE SPECIALIST
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	VICTORIA'S SECRET, LLC
Entity Title:	Not reported
Affiliation Address:	4 LIMITED PARKWAY
Affiliation City:	REYNOLDSBURG
Affiliation State:	OH
Affiliation Country:	United States
Affiliation Zip:	43068
Affiliation Phone:	(614) 577-7000
Affiliation Type Desc:	Environmental Contact
Entity Name:	Mike Ryan
Entity Title:	Not reported
Affiliation Address:	2 LIMITED PARKWAY
Affiliation City:	COLUMBUS
Affiliation State:	OH
Affiliation Country:	Not reported
Affiliation Zip:	43230
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2 LIMITED PARKWAY
Affiliation City:	COLUMBUS
Affiliation State:	OH
Affiliation Country:	Not reported
Affiliation Zip:	43230
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	VICTORIA SECRET STORE #1411
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported

VICTORIA SECRET STORE #1411 (Continued) **S121781535**

Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(925) 516-5796
Affiliation Type Desc:	Parent Corporation
Entity Name:	L Brands
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

---

6 **SHELL YARD** **CPS-SLIC S106230276**
NW **3052 HEIDORN RANCH RD** **CDL N/A**
< 1/8 **ANTIOCH, CA 94531** **CERS**
0.069 mi.
366 ft.

Relative:
Lower

Actual:
153 ft.

CPS-SLIC:

Name:	SHELL YARD
Address:	3052 HEIDORN RANCH RD
City,State,Zip:	ANTIOCH, CA 94531
Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	02/17/2011
Global Id:	SL0601369421
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	37.94806
Longitude:	-121.751851
Case Type:	Cleanup Program Site
Case Worker:	KAS
Local Agency:	Not reported
RB Case Number:	SL0601369421
File Location:	Regional Board
Potential Media Affected:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	* Petroleum - Automotive gasolines, * Petroleum - Diesel fuels, * Petroleum - Waste oil
Site History:	The Site is at the intersection of Heidorn Ranch Road and Sand Creek Road in Antioch. The 10-acre lot was formerly used as an office and maintenance yard for pipeline operations, with secondary use as a support area for oil and gas production operations. The Site is bounded on all sides by agricultural fields.

Click here to access the California GeoTracker records for this facility:

SLIC REG 5:

Name:	Oxy USA Inc. Shell Yard
Address:	3052 Heidorn Ranch Rd
City:	Antioch
Region:	5
Facility Status:	Preliminary Assessment
Unit:	Facility is a Spill or site

SHELL YARD (Continued) **S106230276**

Pollutant: TPH g,d, BTEX
Lead Agency: MES
Date Filed: / /
Report Date: / /
Date Added: Not reported
Date Closed: Not reported

CDL:
Name: Not reported
Address: 3052 HEIDORN RANCH
City,State,Zip: ANTIOCH, CA 94509
Facility ID: 2000-11-134
Date: 11/26/2000
Labtype: Abandoned Drug Lab
Lab Type: Abandoned Drug Lab Waste (A) - location away from an actual illegal drug lab where drug lab waste and/or equipment were abandoned.

CERS:
Name: SHELL YARD
Address: 3052 HEIDORN RANCH RD
City,State,Zip: ANTIOCH, CA 94531
Site ID: 206713
CERS ID: SL0601369421
CERS Description: Cleanup Program Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: KRISTIN SHELTON - CENTRAL VALLEY RWQCB (REGION 5S)
Entity Title: Not reported
Affiliation Address: 11020 SUN CENTER DRIVE #200
Affiliation City: RANCHO CORDOVA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

B7 **THE TALBOTS INC. #1193** **CERS HAZ WASTE** **S121748280**
East **2565 SAND CREEK RD STE 104** **N/A**
< 1/8 **BRENTWOOD, CA 94513**
0.092 mi.
488 ft. **Site 1 of 14 in cluster B**

Relative:
Lower

Actual:
133 ft.

CERS HAZ WASTE:
Name: THE TALBOTS INC. #1193
Address: 2565 SAND CREEK RD STE 104
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 161128
CERS ID: 10610956
CERS Description: Hazardous Waste Generator

Violations:
Site ID: 161128
Site Name: The Talbots Inc. #1193
Violation Date: 05-09-2016
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description: Tiered Permitting Program - Administration/Documentation - General

THE TALBOTS INC. #1193 (Continued) **S121748280**

Violation Notes:	Returned to compliance on 06/09/2016.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS
Site ID:	161128
Site Name:	The Talbots Inc. #1193
Violation Date:	09-10-2019
Citation:	22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description:	Failure to obtain an Identification Number prior to treating, storing, disposing of, transporting or offering for transportation any hazardous waste.
Violation Notes:	Returned to compliance on 09/11/2019. OBSERVATION: The generator's EPA ID number is inactive. A hazardous waste generator shall not treat, store, dispose of, transport or offer for transportation, hazardous waste without an active EPA ID number. CORRECTIVE ACTION: Submit documentation to the CUPA demonstrating that you have reactivated the facility's EPA ID number.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	05-09-2016
Violations Found:	Yes
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	09-11-2019
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-27-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	09-10-2019
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department

THE TALBOTS INC. #1193 (Continued) **S121748280**

Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 161128
Site Name: The Talbots Inc. #1193
Site Address: 2565 SAND CREEK RD STE 104
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 05-09-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 161128
Site Name: The Talbots Inc. #1193
Site Address: 2565 SAND CREEK RD STE 104
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 09-10-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: Safety Kleen
Entity Title: Not reported
Affiliation Address: 2600 N.Central Expressway, Ste. 400
Affiliation City: Richardson
Affiliation State: TX
Affiliation Country: Not reported
Affiliation Zip: 75080
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 2565 Sand Creek Rd Ste 104
Affiliation City: Brentwood
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94513
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: Contra Costa County Health Services Department
Entity Title: Not reported
Affiliation Address: 4585 Pacheco BlvdSuite 100
Affiliation City: Martinez

THE TALBOTS INC. #1193 (Continued) **S121748280**

Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200
Affiliation Type Desc:	Operator
Entity Name:	The Talbots Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(781) 749-7600
Affiliation Type Desc:	Parent Corporation
Entity Name:	The Talbots Inc. #1193
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Melissa Anzalone
Entity Title:	Manger, Stores Maintenance
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Document Preparer
Entity Name:	Melissa Anzalone
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	The Talbots Inc.
Entity Title:	Not reported
Affiliation Address:	1 Talbots Drive
Affiliation City:	Hingham
Affiliation State:	MA
Affiliation Country:	United States
Affiliation Zip:	02043
Affiliation Phone:	(781) 749-7600

B8 **LENSCRAFTERS #5612** **HAZNET** **S117543103**
East **2565 SAND CREEK RD STE 124** **CONTRA COSTA CO. SITE LIST** **N/A**
< 1/8 **BRENTWOOD, CA 94513** **HWTS**
0.092 mi.
488 ft. **Site 2 of 14 in cluster B**

Relative:
Lower

Actual:
133 ft.

HAZNET:

Name:	LENSCRAFTERS #5612
Address:	2565 SAND CREEK RD STE 124
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 945137191
Contact:	ANDREW PETTY
Telephone:	5137656909
Mailing Name:	Not reported
Mailing Address:	4000 LUXOTTICA PL
Year:	2015
Gepaid:	CAL000338146
TSD EPA ID:	OKD000402396
CA Waste Code:	352 - Other organic solids
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0075
Year:	2015
Gepaid:	CAL000338146
TSD EPA ID:	OKD000402396
CA Waste Code:	134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0042

Additional Info:

Year:	2015
Gen EPA ID:	CAL000338146
Shipment Date:	20150328
Creation Date:	9/22/2015 22:15:43
Receipt Date:	20150424
Manifest ID:	009106531JJK
Trans EPA ID:	MIK435642742
Trans Name:	EQ INDUSTRIAL SERVICES
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT INC
TSDF EPA ID:	OKD000402396
Trans Name:	EQ OKLAHOMA INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	352 - Other organic solids
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0075
Waste Quantity:	15
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported

LENSCRAFTERS #5612 (Continued) **S117543103**

Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150328
Creation Date:	9/22/2015 22:15:43
Receipt Date:	20150424
Manifest ID:	009106531JJK
Trans EPA ID:	MIK435642742
Trans Name:	EQ INDUSTRIAL SERVICES
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT INC
TSDF EPA ID:	OKD000402396
Trans Name:	EQ OKLAHOMA INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0042
Waste Quantity:	1
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CONTRA COSTA CO. SITE LIST:

Name:	THE TALBOTS INC #1193
Address:	2565 SAND CREEK RD 104
City:	BRENTWOOD
Facility ID:	FA0036231
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: REPORTED ZERO
Region:	CONTRA COSTA
Cupa Number:	775008

HWTS:

Name:	LENSCRAFTERS #5612
Address:	2565 SAND CREEK RD STE 124
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 945137191
EPA ID:	CAL000338146
Inactive Date:	Not reported
Create Date:	11/24/2008
Last Act Date:	09/06/2019
Mailing Name:	Not reported
Mailing Address:	4000 LUXOTTICA PL
Mailing Address 2:	RX GLOBAL OPERATIONS
Mailing City,State,Zip:	MASON, OH 450408114
Owner Name:	LUXOTTICA RETAIL NA
Owner Address:	4000 LUXOTTICA PL
Owner Address 2:	Not reported
Owner City,State,Zip:	MASON, OH 450400000

LENSCRAFTERS #5612 (Continued) **S117543103**

Contact Name: MELISSA OLBERDING
Contact Address: 4000 LUXOTTICA PLACE
Contact Address 2: Not reported
City,State,Zip: CINCINNATI, OH 45040

NAICS:
EPA ID: CAL000338146
Create Date: 2008-11-24 11:44:33
NAICS Code: 44613
NAICS Description: Optical Goods Stores
Issued EPA ID Date: 2008-11-24 11:44:33
Inactive Date: Not reported
Facility Name: LENSCRAFTERS #5612
Facility Address: 2565 SAND CREEK RD STE 124
Facility Address 2: Not reported
Facility City: BRENTWOOD
Facility County: 07
Facility State: CA
Facility Zip: 945137191

B9 **LENSCRAFTERS #5612** **CERS HAZ WASTE** **S109420854**
East **2565 SAND CREEK RD** **CONTRA COSTA CO. SITE LIST** **N/A**
< 1/8 **BRENTWOOD, CA 94513**
0.092 mi.
488 ft. **Site 3 of 14 in cluster B**

Relative:
Lower

Actual:
133 ft.

CERS HAZ WASTE:
Name: LENSCRAFTERS #5612
Address: 2565 SAND CREEK RD
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 130348
CERS ID: 10019485
CERS Description: Hazardous Waste Generator

Violations:
Site ID: 130348
Site Name: LENSCRAFTERS #5612
Violation Date: 05-16-2014
Citation: HSC 6.67 Multiple Sections - California Health and Safety Code, Chapter 6.67, Section(s) Multiple Sections
Violation Description: Tiered Permitting Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 06/20/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: CE
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-17-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: CE
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

LENSCRAFTERS #5612 (Continued) **S109420854**

Eval Date: 05-17-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-16-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-11-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: CE
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-18-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: CE
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-16-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: CE
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-18-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 130348
Site Name: LENSCRAFTERS #5612
Site Address: 2565 SAND CREEK RD

LENSCRAFTERS #5612 (Continued) **S109420854**

Site City:	BRENTWOOD
Site Zip:	94513
Enf Action Date:	05-16-2014
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	CE
Enf Action Source:	CERS

Coordinates:

Site ID:	130348
Facility Name:	LENSCRAFTERS #5612
Env Int Type Code:	HWG
Program ID:	10019485
Coord Name:	Not reported
Ref Point Type Desc:	Unknown
Latitude:	37.943679
Longitude:	-121.740567

Affiliation:

Affiliation Type Desc:	Environmental Contact
Entity Name:	JAY MCDONALD
Entity Title:	Not reported
Affiliation Address:	4000 Luxottica Place
Affiliation City:	Mason
Affiliation State:	OH
Affiliation Country:	Not reported
Affiliation Zip:	45040
Affiliation Phone:	Not reported

Affiliation Type Desc:	Operator
Entity Name:	LENSCRAFTERS #5612
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(925) 240-8506

Affiliation Type Desc:	Parent Corporation
Entity Name:	LensCrafters
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	Luxottica North America
Entity Title:	Not reported
Affiliation Address:	4000 Luxottica Place
Affiliation City:	Mason

LENSCRAFTERS #5612 (Continued) **S109420854**

Affiliation State:	OH
Affiliation Country:	United States
Affiliation Zip:	45040
Affiliation Phone:	(513) 765-6000
Affiliation Type Desc:	Onsite Treatment Unit Owner Operator
Entity Name:	Jackie Richardson
Entity Title:	EH&S Specialist
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Onsite Treatment Unit Owner Operator
Entity Name:	Jay McDonald
Entity Title:	Director, In-Store Projects
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Document Preparer
Entity Name:	Jay McDonald
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Jay McDonald
Entity Title:	Director, In-Store Projects
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Onsite Treatment Unit Owner Operator
Entity Name:	ANDREW PETTY
Entity Title:	MANAGER OF SAFETY & ENVIRONMENTAL HEALTH
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department

LENSCRAFTERS #5612 (Continued) **S109420854**

Entity Title: Not reported
Affiliation Address: 4585 Pacheco BlvdSuite 100
Affiliation City: Martinez
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94553
Affiliation Phone: (925) 335-3200

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 4000 Luxottica Place
Affiliation City: Mason
Affiliation State: OH
Affiliation Country: Not reported
Affiliation Zip: 45040
Affiliation Phone: Not reported

Name: LENSCRAFTERS #5612
Address: 2565 SAND CREEK RD
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 130348
CERS ID: 10019485
CERS Description: Hazardous Waste Onsite Treatment

Violations:
Site ID: 130348
Site Name: LENSCRAFTERS #5612
Violation Date: 05-16-2014
Citation: HSC 6.67 Multiple Sections - California Health and Safety Code, Chapter 6.67, Section(s) Multiple Sections
Violation Description: Tiered Permitting Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 06/20/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: CE
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-17-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: CE
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-17-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

LENSCRAFTERS #5612 (Continued) **S109420854**

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-16-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	07-11-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	CE
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-18-2018
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	CE
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-16-2014
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	CE
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-18-2018
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Enforcement Action:

Site ID:	130348
Site Name:	LENSCRAFTERS #5612
Site Address:	2565 SAND CREEK RD
Site City:	BRENTWOOD
Site Zip:	94513
Enf Action Date:	05-16-2014
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	CE

LENSCRAFTERS #5612 (Continued) **S109420854**

Enf Action Source: CERS

Coordinates:
Site ID: 130348
Facility Name: LENSCRAFTERS #5612
Env Int Type Code: HWG
Program ID: 10019485
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.943679
Longitude: -121.740567

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: JAY MCDONALD
Entity Title: Not reported
Affiliation Address: 4000 Luxottica Place
Affiliation City: Mason
Affiliation State: OH
Affiliation Country: Not reported
Affiliation Zip: 45040
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: LENSCRAFTERS #5612
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (925) 240-8506

Affiliation Type Desc: Parent Corporation
Entity Name: LensCrafters
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: Luxottica North America
Entity Title: Not reported
Affiliation Address: 4000 Luxottica Place
Affiliation City: Mason
Affiliation State: OH
Affiliation Country: United States
Affiliation Zip: 45040
Affiliation Phone: (513) 765-6000

Affiliation Type Desc: Onsite Treatment Unit Owner Operator
Entity Name: Jackie Richardson
Entity Title: EH&S Specialist

LENSCRAFTERS #5612 (Continued) **S109420854**

Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Onsite Treatment Unit Owner Operator
Entity Name:	Jay McDonald
Entity Title:	Director, In-Store Projects
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Document Preparer
Entity Name:	Jay McDonald
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Jay McDonald
Entity Title:	Director, In-Store Projects
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Onsite Treatment Unit Owner Operator
Entity Name:	ANDREW PETTY
Entity Title:	MANAGER OF SAFETY & ENVIRONMENTAL HEALTH
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200

LENSCRAFTERS #5612 (Continued) **S109420854**

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	4000 Luxottica Place
Affiliation City:	Mason
Affiliation State:	OH
Affiliation Country:	Not reported
Affiliation Zip:	45040
Affiliation Phone:	Not reported

CONTRA COSTA CO. SITE LIST:

Name:	LENSCRAFTERS #5612
Address:	2565 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0030589
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: REPORTED ZERO
Region:	CONTRA COSTA
Cupa Number:	773920

Name:	LENSCRAFTERS #5612
Address:	2565 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0030589
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	TP: CONDITIONALLY EXEMPT
Region:	CONTRA COSTA
Cupa Number:	773920

Name:	LENSCRAFTERS #5612
Address:	2565 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0030589
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP: LESS THAN 1000 LBS
Region:	CONTRA COSTA
Cupa Number:	773920

B10 **LENSCRAFTERS #5612** **RCRA NonGen / NLR** **1024821682**
East **2565 SAND CREEK RD STE 124** **CAL000338146**
< 1/8 **BRENTWOOD, CA 94513**
0.092 mi.
488 ft. **Site 4 of 14 in cluster B**

Relative: **Lower**

Actual: **133 ft.**

RCRA NonGen / NLR:

Date form received by agency:	2008-11-24 00:00:00.0
Facility name:	LENSCRAFTERS #5612
Facility address:	2565 SAND CREEK RD STE 124 BRENTWOOD, CA 94513-7191
EPA ID:	CAL000338146
Mailing address:	4000 LUXOTTICA PL RX GLOBAL OPERATIONS MASON, OH 45040-8114

LENSCRAFTERS #5612 (Continued) **1024821682**

Contact:	JACKIE RICHARDSON
Contact address:	4000 LUXOTTICA PLACE MASON, OH 45040
Contact country:	Not reported
Contact telephone:	513-765-4311
Contact email:	JRICHARD@LUXOTTICARETAIL.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	JACKIE RICHARDSON
Owner/operator address:	4000 LUXOTTICA PLACE MASON, OH 45040
Owner/operator country:	Not reported
Owner/operator telephone:	513-765-4311
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	LUXOTTICA RETAIL NA
Owner/operator address:	4000 LUXOTTICA PL MASON, OH 45040
Owner/operator country:	Not reported
Owner/operator telephone:	513-765-6000
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

B11
East
< 1/8
0.092 mi.
488 ft.

Relative:
Lower

Actual:
133 ft.

RCRA NonGen / NLR **1025869232**
CAL000402609

2565 SAND CREEK RD STE 104
BRENTWOOD, CA 94513

Site 5 of 14 in cluster B

RCRA NonGen / NLR:

Date form received by agency:	2014-12-01 00:00:00.0
Facility name:	Not reported
Facility address:	2565 SAND CREEK RD STE 104 BRENTWOOD, CA 94513
EPA ID:	CAL000402609
Contact:	CLAUDINE ONCENA
Contact address:	2565 SAND CREEK RD STE 104 BRENTWOOD, CA 94513
Contact country:	Not reported
Contact telephone:	925-240-0350
Contact email:	CLAUDINE.ONCENA@TALBOTS.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	CLAUDINE ONCENA
Owner/operator address:	2565 SAND CREEK RD STE 104 BRENTWOOD, CA 94513
Owner/operator country:	Not reported
Owner/operator telephone:	925-240-0350
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	THE TALBOTS INC
Owner/operator address:	1 TALBOTS DR HINGHAM, MA 02043
Owner/operator country:	Not reported
Owner/operator telephone:	781-741-4140
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No

(Continued) **1025869232**

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

B12 **ROUND TABLE PIZZA** **CONTRA COSTA CO. SITE LIST** **S123815529**
East **2540 SAND CREEK RD** **N/A**
< 1/8 **BRENTWOOD, CA 94513**
0.095 mi.
503 ft. **Site 6 of 14 in cluster B**

Relative:
Lower

Actual:
130 ft.

CONTRA COSTA CO. SITE LIST:
Name: ROUND TABLE PIZZA
Address: 2540 SAND CREEK RD
City: BRENTWOOD
Facility ID: FA0042931
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HMBP GENERAL
Region: CONTRA COSTA
Cupa Number: 776401

B13 **EXPRESS FASHION OPERATIONS LLC** **CERS HAZ WASTE** **S118152340**
East **2545 SAND CREEK RD** **HAZNET** **N/A**
< 1/8 **BRENTWOOD, CA 94513** **CONTRA COSTA CO. SITE LIST**
0.102 mi. **HWTS**
537 ft. **Site 7 of 14 in cluster B**

Relative:
Lower

Actual:
131 ft.

CERS HAZ WASTE:
Name: EXPRESS 2007
Address: 2545 SAND CREEK RD
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 355821
CERS ID: 10638574
CERS Description: Hazardous Waste Generator

Violations:
Site ID: 355821
Site Name: Express 2007
Violation Date: 08-22-2016
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description: Hazardous Waste Generator Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 09/02/2016.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Site ID: 355821
Site Name: Express 2007
Violation Date: 08-22-2016
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5,

EXPRESS FASHION OPERATIONS LLC (Continued) **S118152340**

	Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Administration/Documentation - General
Violation Notes:	Returned to compliance on 09/16/2016.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	09-19-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-22-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Enforcement Action:

Site ID:	355821
Site Name:	Express 2007
Site Address:	2545 SAND CREEK RD
Site City:	BRENTWOOD
Site Zip:	94513
Enf Action Date:	08-22-2016
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	HW
Enf Action Source:	CERS

Coordinates:

Site ID:	355821
Facility Name:	Express 2007
Env Int Type Code:	HWG
Program ID:	10638574
Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	37.943690
Longitude:	-121.740160

Affiliation:

Affiliation Type Desc:	Environmental Contact
Entity Name:	g2 revolution
Entity Title:	Not reported

EXPRESS FASHION OPERATIONS LLC (Continued) **S118152340**

Affiliation Address:	8585 Pyott Rd. Ste. 100
Affiliation City:	Lake in the Hills
Affiliation State:	IL
Affiliation Country:	Not reported
Affiliation Zip:	60156
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	Express Fashion Operations, LLC
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200
Affiliation Type Desc:	Document Preparer
Entity Name:	Jessica Otto, g2 revolution
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	8585 Pyott Rd. Ste. 100
Affiliation City:	Lake in the Hills
Affiliation State:	IL
Affiliation Country:	Not reported
Affiliation Zip:	60156
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	Express 2007
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(925) 513-7946

EXPRESS FASHION OPERATIONS LLC (Continued) **S118152340**

Affiliation Type Desc:	Identification Signer
Entity Name:	Jessica Otto
Entity Title:	Environmental Specialist, g2 revolution
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	Express Fashion Operations, LLC
Entity Title:	Not reported
Affiliation Address:	1 Express Drive
Affiliation City:	Columbus
Affiliation State:	OH
Affiliation Country:	United States
Affiliation Zip:	43230
Affiliation Phone:	(614) 474-4001

HAZNET:

Name:	EXPRESS FASHION OPERATIONS LLC
Address:	2545 SAND CREEK RD
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 94513
Contact:	BARRY WILSON
Telephone:	6144744028
Mailing Name:	Not reported
Mailing Address:	1 EXPRESS DR

Year:	2016
Gepaid:	CAL000405426
TSD EPA ID:	NVT330010000
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.004

CONTRA COSTA CO. SITE LIST:

Name:	EXPRESS 2007
Address:	2545 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0036913
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: REPORTED ZERO
Region:	CONTRA COSTA
Cupa Number:	775093

HWTS:

Name:	EXPRESS FASHION OPERATIONS LLC
Address:	2545 SAND CREEK RD
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 94513

EXPRESS FASHION OPERATIONS LLC (Continued) **S118152340**

EPA ID:	CAL000405426
Inactive Date:	06/30/2016
Create Date:	03/23/2015
Last Act Date:	01/12/2017
Mailing Name:	Not reported
Mailing Address:	1 EXPRESS DR
Mailing Address 2:	Not reported
Mailing City,State,Zip:	COLUMBUS, OH 43230
Owner Name:	EXPRESS LLC
Owner Address:	1 EXPRESS DR
Owner Address 2:	Not reported
Owner City,State,Zip:	COLUMBUS, OH 43230
Contact Name:	BARRY WILSON
Contact Address:	1 EXPRESS DRIVE
Contact Address 2:	Not reported
City,State,Zip:	COLUMBUS, OH 432300000

NAICS:

EPA ID:	CAL000405426
Create Date:	2015-03-23 09:17:42
NAICS Code:	44819
NAICS Description:	Other Clothing Stores
Issued EPA ID Date:	2015-03-23 09:17:42
Inactive Date:	2016-06-30 00:00:00
Facility Name:	EXPRESS FASHION OPERATIONS LLC
Facility Address:	2545 SAND CREEK RD
Facility Address 2:	Not reported
Facility City:	BRENTWOOD
Facility County:	07
Facility State:	CA
Facility Zip:	94513

B14 **EXPRESS 2007** **RCRA NonGen / NLR** **1024859381**
East **2545 SANDCREEK ROAD** **CAL000426403**
< 1/8 **BRENTWOOD, CA 94513**
0.102 mi.
537 ft. **Site 8 of 14 in cluster B**

Relative:
Lower

Actual:
131 ft.

RCRA NonGen / NLR:

Date form received by agency:	2017-03-29 00:00:00.0
Facility name:	EXPRESS 2007
Facility address:	2545 SANDCREEK ROAD BRENTWOOD, CA 94513
EPA ID:	CAL000426403
Mailing address:	8585 PYOTT RD STE 100 LAKE IN THE HILLS, IL 60156
Contact:	JESSICA OTTO
Contact address:	8585 PYOTT RD STE 100 LAKE IN THE HILLS, IL 60156
Contact country:	Not reported
Contact telephone:	224-858-4583
Contact email:	JESSICA.OTTO@G2REV.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

EXPRESS 2007 (Continued) **1024859381**

Owner/Operator Summary:

Owner/operator name:	JESSICA OTTO
Owner/operator address:	8585 PYOTT RD STE 100 LAKE IN THE HILLS, IL 60156
Owner/operator country:	Not reported
Owner/operator telephone:	224-858-4583
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	EXPRESS FASHION OPERATIONS LLC
Owner/operator address:	1 EXPRESS DR COLUMBUS, OH 43230
Owner/operator country:	Not reported
Owner/operator telephone:	614-474-7000
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

15
ESE
< 1/8
0.104 mi.
547 ft.

BRENTWOOD SHOPPING CENTER
2200 SAN JOSE AVENUE
BRENTWOOD, CA 94513

CPS-SLIC **S106707855**
CERS **N/A**

Relative:
Lower

Actual:
122 ft.

CPS-SLIC:

Name:	BRENTWOOD SHOPPING CENTER
Address:	2200 SAN JOSE AVENUE
City,State,Zip:	BRENTWOOD, CA 94513
Region:	STATE
Facility Status:	**Completed - Case Closed**

BRENTWOOD SHOPPING CENTER (Continued) **S106707855**

Status Date:	06/19/2001
Global Id:	SL0601334843
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	37.946104
Longitude:	-121.703137
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	SLT5S772
File Location:	Regional Board
Potential Media Affected:	Under Investigation
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 5:

Name:	Brentwood Shopping Center
Address:	2200 San Jose Ave
City:	Brentwood
Region:	5
Facility Status:	Remediation Completed
Unit:	Facility is a Spill or site
Pollutant:	TPH
Lead Agency:	MES
Date Filed:	/ /
Report Date:	03/13/01
Date Added:	Not reported
Date Closed:	6/19/2001

CERS:

Name:	BRENTWOOD SHOPPING CENTER
Address:	2200 SAN JOSE AVENUE
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	226234
CERS ID:	SL0601334843
CERS Description:	Cleanup Program Site

B16 **ROSS DRESS FOR LESS #0629** **CERS HAZ WASTE** **S117047935**
East **2520 SAND CREEK RD** **HAZNET** **N/A**
< 1/8 **BRENTWOOD, CA 94513** **CONTRA COSTA CO. SITE LIST**
0.107 mi. **HWTS**
565 ft. **Site 9 of 14 in cluster B**

Relative:
Lower

Actual:
130 ft.

CERS HAZ WASTE:

Name:	ROSS DRESS FOR LESS #0629
Address:	2520 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	149102
CERS ID:	10509043
CERS Description:	Hazardous Waste Generator

Violations:

Site ID:	149102
Site Name:	Ross Dress For Less #0629
Violation Date:	09-10-2019

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Citation:	40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description:	Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
Violation Notes:	OBSERVATION: Toxic bin located in the hazardous waste area in the back of store was observed open. CORRECTIVE ACTION: Submit photos to the CUPA demonstrating that the container listed above has been properly closed.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS
Site ID:	149102
Site Name:	Ross Dress For Less #0629
Violation Date:	01-27-2016
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Haz Waste Generator Program - Administration/Documentation - General
Violation Notes:	Returned to compliance on 02/01/2016.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS
Site ID:	149102
Site Name:	Ross Dress For Less #0629
Violation Date:	09-10-2019
Citation:	HSC 6.5 25123.3(h) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)
Violation Description:	Failure to determine the status of any hazardous waste if a signed copy of the manifest isnG t received within 35 days of the date the waste was accepted by the initial transporter and/or to submit an Exception Report to DTSC if a signed copy of the manifest isnG t received within 60 days of the date the waste was accepted by the initial transporter.
Violation Notes:	OBSERVATION: The generator failed to file an exception report with the DTSC after not receiving a destination facility signed copy of the uniform hazardous waste manifest within 60 days of the waste shipment date. This includes (1) manifest from 2017, (2) from 2018, and (3) from 2019. CORRECTIVE ACTION: Either locate a copy of the missing manifests or prepare and submit an exception report to DTSC (DTSC Report Repository; Generator Information Services Section; P.O. Box 806; Sacramento, CA 95812-0806). Submit copies to the CUPA.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-27-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 02-05-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-10-2019
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 149102
Site Name: Ross Dress For Less #0629
Site Address: 2520 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 01-27-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 149102
Site Name: Ross Dress For Less #0629
Site Address: 2520 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 09-10-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Coordinates:
Site ID: 149102
Facility Name: Ross Dress For Less #0629
Env Int Type Code: HWG
Program ID: 10509043
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.943470

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Longitude: -121.737470

Affiliation:

Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200

Affiliation Type Desc:	Identification Signer
Entity Name:	Ashley Campbell
Entity Title:	ENVIRONMENTAL COMPLIANCE SPECIALIST
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	Ross Dress For Less Inc.
Entity Title:	Not reported
Affiliation Address:	5130 Hacienda Dr
Affiliation City:	Dublin
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94568-7579
Affiliation Phone:	(925) 965-4831

Affiliation Type Desc:	Parent Corporation
Entity Name:	Ross Stores, Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Property Owner
Entity Name:	Ross Dress For Less, Inc.
Entity Title:	Not reported
Affiliation Address:	5130 Hacienda Dr
Affiliation City:	Dublin
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94568-7579
Affiliation Phone:	(925) 965-4831

Affiliation Type Desc:	Document Preparer
Entity Name:	ASHLEY CAMPBELL
Entity Title:	Not reported
Affiliation Address:	Not reported

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	ASHLEY CAMPBELL
Entity Title:	Not reported
Affiliation Address:	5151 San Felipe St, Suite 1000
Affiliation City:	Houston
Affiliation State:	TX
Affiliation Country:	Not reported
Affiliation Zip:	77056
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	5130 Hacienda Dr
Affiliation City:	Dublin
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94568-7579
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	Ross Dress For Less Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(925) 965-4831

HAZNET:

Name:	ROSS DRESS FOR LESS #0629
Address:	2520 SAND CREEK RD
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 945137059
Contact:	KATHY HATCH
Telephone:	9259654015
Mailing Name:	Not reported
Mailing Address:	5151 SAN FELIPE ST STE 1000
Year:	2017
Gepaid:	CAL000397536
TSD EPA ID:	CAD980884183
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.056
Year:	2016
Gepaid:	CAL000397536

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

TSD EPA ID: CAD980884183
CA Waste Code: 122 - Alkaline solution without metals pH >= 12.5
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0025

Year: 2016
Gepaid: CAL000397536
TSD EPA ID: CAD980884183
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.097

Year: 2015
Gepaid: CAL000397536
TSD EPA ID: NVD980895338
CA Waste Code: 122 - Alkaline solution without metals pH >= 12.5
Disposal Method: H121 - Neutralization Only
Tons: 0.0015

Year: 2015
Gepaid: CAL000397536
TSD EPA ID: NVD980895338
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0835

Year: 2015
Gepaid: CAL000397536
TSD EPA ID: CAD980884183
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.05

Additional Info:
Year: 2016
Gen EPA ID: CAL000397536

Shipment Date: 20151229
Creation Date: 3/22/2016 22:15:44
Receipt Date: 20151230
Manifest ID: 000128132DAT
Trans EPA ID: CAR000210617
Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAD980884183
Trans Name: GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
CA Waste Code: 331 - Off-specification, aged, or surplus organics
RCRA Code: D001
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

	Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151229
Creation Date:	3/22/2016 22:15:44
Receipt Date:	20151230
Manifest ID:	000128132DAT
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D016
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0475
Waste Quantity:	95
Quantity Unit:	P
Additional Code 1:	D011
Additional Code 2:	D008
Additional Code 3:	D006
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151229
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	000128132DAT
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	- Not reported
Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Additional Code 5:	Not reported
Shipment Date:	20150715
Creation Date:	2/9/2016 22:15:11
Receipt Date:	20150727
Manifest ID:	001065447PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVR000089375
Trans 2 Name:	DOUBLE BARREL ENVIRONMENTAL SERVICES
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0585
Waste Quantity:	117
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150715
Creation Date:	2/9/2016 22:15:11
Receipt Date:	20150727
Manifest ID:	001065447PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVR000089375
Trans 2 Name:	DOUBLE BARREL ENVIRONMENTAL SERVICES
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150128
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	- Not reported
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0035
Waste Quantity:	7
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20150128
Creation Date:	8/21/2015 22:15:14
Receipt Date:	20150204
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Disposal Method:	H121 - Neutralization Only
Quantity Tons:	0.0015
Waste Quantity:	3
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20150128
Creation Date:	8/21/2015 22:15:14
Receipt Date:	20150204
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

RCRA Code:	D016
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	D011
Additional Code 2:	D008
Additional Code 3:	D006
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150128
Creation Date:	8/21/2015 22:15:14
Receipt Date:	20150204
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150128
Creation Date:	8/21/2015 22:15:14
Receipt Date:	20150204
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.002
Waste Quantity:	4
Quantity Unit:	P
Additional Code 1:	Not reported

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2017
Gen EPA ID:	CAL000397536
Shipment Date:	20171019
Creation Date:	10/9/2018 18:30:56
Receipt Date:	20171120
Manifest ID:	001683187PSC
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.005
Waste Quantity:	10
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20171019
Creation Date:	10/9/2018 18:30:56
Receipt Date:	20171120
Manifest ID:	001683187PSC
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0095
Waste Quantity:	19
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Additional Code 5:	Not reported
Shipment Date:	20171019
Creation Date:	10/9/2018 18:30:56
Receipt Date:	20171120
Manifest ID:	001683187PSC
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D016
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.062
Waste Quantity:	124
Quantity Unit:	P
Additional Code 1:	D011
Additional Code 2:	D008
Additional Code 3:	D006
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170502
Creation Date:	5/17/2018 18:31:33
Receipt Date:	20170509
Manifest ID:	001541994PSC
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170502
Creation Date:	5/17/2018 18:31:33
Receipt Date:	20170509
Manifest ID:	001541994PSC
Trans EPA ID:	MNS000110924

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D016
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0535
Waste Quantity:	107
Quantity Unit:	P
Additional Code 1:	D011
Additional Code 2:	D008
Additional Code 3:	D006
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2015
Gen EPA ID:	CAL000397536
Shipment Date:	20151229
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	000128132DAT
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	- Not reported
Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151229
Creation Date:	3/22/2016 22:15:44
Receipt Date:	20151230
Manifest ID:	000128132DAT
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D016
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0475
Waste Quantity:	95
Quantity Unit:	P
Additional Code 1:	D011
Additional Code 2:	D008
Additional Code 3:	D006
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151229
Creation Date:	3/22/2016 22:15:44
Receipt Date:	20151230
Manifest ID:	000128132DAT
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150715
Creation Date:	2/9/2016 22:15:11
Receipt Date:	20150727
Manifest ID:	001065447PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVR000089375
Trans 2 Name:	DOUBLE BARREL ENVIRONMENTAL SERVICES
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150715
Creation Date:	2/9/2016 22:15:11
Receipt Date:	20150727
Manifest ID:	001065447PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVR000089375
Trans 2 Name:	DOUBLE BARREL ENVIRONMENTAL SERVICES
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0585
Waste Quantity:	117
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150128
Creation Date:	8/21/2015 22:15:14
Receipt Date:	20150204
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Disposal Method:	H121 - Neutralization Only
Quantity Tons:	0.0015
Waste Quantity:	3
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Shipment Date:	20150128
Creation Date:	8/21/2015 22:15:14
Receipt Date:	20150204
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D016
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	D011
Additional Code 2:	D008
Additional Code 3:	D006
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20150128
Creation Date:	8/21/2015 22:15:14
Receipt Date:	20150204
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.002
Waste Quantity:	4
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20150128
Creation Date:	8/21/2015 22:15:14
Receipt Date:	20150204
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20150128
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.038
Waste Quantity:	76
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CONTRA COSTA CO. SITE LIST:

Name:	ROSS DRESS FOR LESS #0629
Address:	2520 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0035793
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: LESS THAN 5 TONS/YEAR
Region:	CONTRA COSTA
Cupa Number:	774910

HWTS:

Name:	ROSS DRESS FOR LESS #0629

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Address:	2520 SAND CREEK RD
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 945137059
EPA ID:	CAL000397536
Inactive Date:	Not reported
Create Date:	06/06/2014
Last Act Date:	10/03/2019
Mailing Name:	Not reported
Mailing Address:	5151 SAN FELIPE ST STE 1000
Mailing Address 2:	Not reported
Mailing City,State,Zip:	HOUSTON, TX 77056
Owner Name:	ROSS DRESS FOR LESS INC
Owner Address:	5130 HACIENDA DR
Owner Address 2:	Not reported
Owner City,State,Zip:	DUBLIN, CA 94568
Contact Name:	KATHY HATCH
Contact Address:	5130 HACIENDA DR
Contact Address 2:	3RD FLOOR
City,State,Zip:	DUBLIN, CA 94568

NAICS:

EPA ID:	CAL000397536
Create Date:	2014-06-06 10:24:23
NAICS Code:	44814
NAICS Description:	Family Clothing Stores
Issued EPA ID Date:	2014-06-06 10:24:23
Inactive Date:	Not reported
Facility Name:	ROSS DRESS FOR LESS #0629
Facility Address:	2520 SAND CREEK RD
Facility Address 2:	Not reported
Facility City:	BRENTWOOD
Facility County:	07
Facility State:	CA
Facility Zip:	945137059

B17 **ROSS DRESS FOR LESS #0629** **RCRA NonGen / NLR** **1024844854**
East **2520 SAND CREEK RD** **CAL000397536**
< 1/8 **BRENTWOOD, CA 94513**
0.107 mi.
565 ft. **Site 10 of 14 in cluster B**

Relative:
Lower

Actual:
130 ft.

RCRA NonGen / NLR:

Date form received by agency:	2014-06-06 00:00:00.0
Facility name:	ROSS DRESS FOR LESS #0629
Facility address:	2520 SAND CREEK RD BRENTWOOD, CA 94513-7059
EPA ID:	CAL000397536
Mailing address:	5151 SAN FELIPE ST STE 1000 HOUSTON, TX 77056
Contact:	KATHY HATCH
Contact address:	5130 HACIENDA DR 3RD FLOOR DUBLIN, CA 94568
Contact country:	Not reported
Contact telephone:	925-965-4015
Contact email:	ERIC.GUARD@ROS.COM
EPA Region:	09
Classification:	Non-Generator

ROSS DRESS FOR LESS #0629 (Continued) **1024844854**

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	KATHY HATCH
Owner/operator address:	5130 HACIENDA DR 3RD FLOOR DUBLIN, CA 94568
Owner/operator country:	Not reported
Owner/operator telephone:	925-965-4015
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	ROSS DRESS FOR LESS INC
Owner/operator address:	5130 HACIENDA DR DUBLIN, CA 94568
Owner/operator country:	Not reported
Owner/operator telephone:	925-965-4831
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

B18 **HOLLISTER CO** **CERS HAZ WASTE** **S113407791**
East **2505 SAND CREEK RD** **CONTRA COSTA CO. SITE LIST** **N/A**
< 1/8 **BRENTWOOD, CA 94513**
0.123 mi.
651 ft. **Site 11 of 14 in cluster B**

Relative:
Lower

Actual:
130 ft.

CERS HAZ WASTE:

Name:	HOLLISTER CO
Address:	2505 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	36719
CERS ID:	10477255
CERS Description:	Hazardous Waste Generator

Violations:

Site ID:	36719
Site Name:	HOLLISTER CO
Violation Date:	08-22-2016
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 10/13/2016.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Site ID:	36719
Site Name:	HOLLISTER CO
Violation Date:	08-22-2016
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Administration/Documentation - General
Violation Notes:	Returned to compliance on 10/13/2016.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Site ID:	36719
Site Name:	HOLLISTER CO
Violation Date:	05-24-2019
Citation:	HSC 6.11 25404(e)(4) - California Health and Safety Code, Chapter 6.11, Section(s) 25404(e)(4)
Violation Description:	Failure to report program data electronically.
Violation Notes:	OBSERVATION: ON APRIL 1, 2019, CCHSHMP SENT A NOTICE OF VIOLATION (ATTACHED) TO THE SUBJECT FACILITY FOR FAILURE TO SUBMIT A COMPLETE AND CORRECT CALIFORNIA ENVIRONMENTAL REPORTING SYSTEM (CERS) FACILITY INFORMATION SUBMITTAL ELEMENT TO CCHSHMP. AS OF MAY 24, 2019, THE VIOLATION REMAINS OUTSTANDING.- - CORRECTIVE ACTION: IMMEDIATELY LOG ONTO CERS (https://cers.calepa.ca.gov/) AND SUBMIT COMPLETE/CORRECT FACILITY INFORMATION SUBMITTAL ELEMENT.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Site ID:	36719
Site Name:	HOLLISTER CO
Violation Date:	04-01-2019
Citation:	HSC 6.11 25404(e)(4) - California Health and Safety Code, Chapter 6.11, Section(s) 25404(e)(4)

HOLLISTER CO (Continued) **S113407791**

Violation Description: Failure to report program data electronically.
Violation Notes: OBSERVATION: AS OF APRIL 1, 2019, A COMPLETE AND CORRECT CALIFORNIA ENVIRONMENTAL REPORTING SYSTEM (CERS) FACILITY INFORMATION SUBMITTAL ELEMENT HAS NOT BEEN RECEIVED/ACCEPTED BY CCHSHMP. CORRECTIVE ACTION: IMMEDIATELY LOG ONTO CERS (https://cers.calepa.ca.gov/) AND SUBMIT COMPLETE/CORRECT FACILITY INFORMATION SUBMITTAL ELEMENT.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 05-24-2019
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-22-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-01-2019
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-13-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 36719
Site Name: HOLLISTER CO
Site Address: 2505 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 04-01-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection

HOLLISTER CO (Continued) **S113407791**

Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 36719
Site Name: HOLLISTER CO
Site Address: 2505 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 05-24-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 36719
Site Name: HOLLISTER CO
Site Address: 2505 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 08-22-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Contra Costa County Health Services Department
Entity Title: Not reported
Affiliation Address: 4585 Pacheco BlvdSuite 100
Affiliation City: Martinez
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94553
Affiliation Phone: (925) 335-3200

Affiliation Type Desc: Operator
Entity Name: ABERCROMBIE & FITCH
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (614) 283-6500

Affiliation Type Desc: Document Preparer
Entity Name: Ian Kupferberg
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported

HOLLISTER CO (Continued) **S113407791**

Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	6301 FITCH PATH
Affiliation City:	NEW ALBANY
Affiliation State:	OH
Affiliation Country:	Not reported
Affiliation Zip:	43054
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Ian Kupferberg
Entity Title:	MANAGER, GLOBAL REGULATORY & ENVIRONMENTAL AFFAIRS
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	KIM HARR
Entity Title:	Not reported
Affiliation Address:	6301 FITCH PATH
Affiliation City:	NEW ALBANY
Affiliation State:	OH
Affiliation Country:	Not reported
Affiliation Zip:	43054
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	ABERCROMBIE & FITCH
Entity Title:	Not reported
Affiliation Address:	6301 FITCH PATH
Affiliation City:	NEW ALBANY
Affiliation State:	OH
Affiliation Country:	United States
Affiliation Zip:	43054
Affiliation Phone:	(614) 283-6500
Affiliation Type Desc:	Parent Corporation
Entity Name:	Abercrombie and Fitch
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

HOLLISTER CO (Continued) **S113407791**

CONTRA COSTA CO. SITE LIST:
Name: HOLLISTER CO
Address: 2505 SAND CREEK RD
City: BRENTWOOD
Facility ID: FA0033602
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG: REPORTED ZERO
Region: CONTRA COSTA
Cupa Number: 774576

Name: RUBIO'S RESTAURANTS INC. STORE 227
Address: 2505 SAND CREEK RD
City: BRENTWOOD
Facility ID: FA0037132
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HMBP: LESS THAN 1000 LBS
Region: CONTRA COSTA
Cupa Number: 775119

Name: BATH & BODY WORKS #2077
Address: 2505 SAND CREEK RD H-2
City: BRENTWOOD
Facility ID: FA0040331
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HMBP: LESS THAN 1000 LBS
Region: CONTRA COSTA
Cupa Number: 775755

Name: BATH & BODY WORKS #2077
Address: 2505 SAND CREEK RD H-2
City: BRENTWOOD
Facility ID: FA0040331
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG: LESS THAN 5 TONS/YEAR
Region: CONTRA COSTA
Cupa Number: 775755

B19 **BATH & BODY WORKS #2077** **CERS HAZ WASTE** **S121782685**
East **2505 SAND CREEK RD STE H-2** **CERS** **N/A**
< 1/8 **BRENTWOOD, CA 94513**
0.123 mi.
651 ft. **Site 12 of 14 in cluster B**

Relative:
Lower

Actual:
130 ft.

CERS HAZ WASTE:
Name: BATH & BODY WORKS #2077
Address: 2505 SAND CREEK RD STE H-2
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 426997
CERS ID: 10746034
CERS Description: Hazardous Waste Generator

CERS:
Name: BATH & BODY WORKS #2077

BATH & BODY WORKS #2077 (Continued) **S121782685**

Address: 2505 SAND CREEK RD STE H-2
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 426997
CERS ID: 10746034
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 426997
Site Name: BATH & BODY WORKS #2077
Violation Date: 06-11-2018
Citation: 22 CCR 15 66265.51 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.51
Violation Description: Failure to prepare and implement a written Contingency Plan to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.
Violation Notes: Returned to compliance on 07/31/2018. Facility submitted HWG form stating that they generated only 0.2 tons of waste. Estimates from manifests show much higher amounts. ALL Large quantity generator requirements are now manadatory (example 220 kilos in january) OBSERVATION: Facility failed to prepare an Contingency Plan. The owner or operator shall prepare an Emergency Response Plan designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned release of hazardous waste to air, soil, or surface water. CORRECTIVE ACTION: Immediately prepare an Contingency Plan and submit a copy to the CUPA.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Site ID: 426997
Site Name: BATH & BODY WORKS #2077
Violation Date: 06-11-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Returned to compliance on 07/19/2018. OBSERVATION: The business failed to complete and electronically submit chemical inventory information for all reportable hazardous materials on site at or above reportable quantities. site has two 55 gallon drums of waste (flammables and toxics) CORRECTIVE ACTION: Complete and electronically submit the chemical inventory information on CERS for all reportable hazardous materials on site at or above reportable quantities.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 426997
Site Name: BATH & BODY WORKS #2077
Violation Date: 06-11-2018
Citation: 22 CCR 15 66265.16 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.16
Violation Description: Failure to provide employees with hazardous waste training program of class room instructions or on-the-job training within the first six months after the date of their employment or assignment to a facility, or to a new position at a facility and annually thereafter. Training

BATH & BODY WORKS #2077 (Continued) **S121782685**

records on current personnel shall be kept until closure of the facility and for former employees the record shall be kept for at least three years from the date the employee last worked at the facility. The records shall include the following: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position, duties of facility personnel assigned to each position, and a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position.

Violation Notes: Returned to compliance on 07/19/2018. OBSERVATION: Owner/Operator failed to provide initial and/or annual refresher training for employees who manage or handle universal waste and to maintain a written record for three years of personnel who took the initial or annual training. (as large quantity generator) CORRECTIVE ACTION: Provide employees with initial or refresher UW training. Submit a evidence of training to the CUPA.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-11-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-11-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-06-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-11-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

BATH & BODY WORKS #2077 (Continued) **S121782685**

Eval General Type:	Other/Unknown
Eval Date:	08-06-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HMRRP
Eval Source:	CERS

Enforcement Action:

Site ID:	426997
Site Name:	BATH & BODY WORKS #2077
Site Address:	2505 SAND CREEK RD STE H-2
Site City:	BRENTWOOD
Site Zip:	94513
Enf Action Date:	06-11-2018
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	HMRRP
Enf Action Source:	CERS

Site ID:	426997
Site Name:	BATH & BODY WORKS #2077
Site Address:	2505 SAND CREEK RD STE H-2
Site City:	BRENTWOOD
Site Zip:	94513
Enf Action Date:	06-11-2018
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	HW
Enf Action Source:	CERS

Affiliation:

Affiliation Type Desc:	Environmental Contact
Entity Name:	Mike Ryan
Entity Title:	Not reported
Affiliation Address:	2 LIMITED PARKWAY
Affiliation City:	COLUMBUS
Affiliation State:	OH
Affiliation Country:	Not reported
Affiliation Zip:	43230
Affiliation Phone:	Not reported

Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200

BATH & BODY WORKS #2077 (Continued) **S121782685**

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2 LIMITED PARKWAY/ATTN: MIKE RYAN
Affiliation City:	COLUMBUS
Affiliation State:	OH
Affiliation Country:	Not reported
Affiliation Zip:	43230
Affiliation Phone:	Not reported

Affiliation Type Desc:	Document Preparer
Entity Name:	ASHLEY CAMPBELL
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Ashley Campbell
Entity Title:	COMPLIANCE & REGULATORY AFFAIRS SPEC
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Parent Corporation
Entity Name:	L Brands
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	Bath & Body Works, LLC
Entity Title:	Not reported
Affiliation Address:	7 LIMITED PARKWAY
Affiliation City:	REYNOLDSBURG
Affiliation State:	OH
Affiliation Country:	United States
Affiliation Zip:	43068
Affiliation Phone:	(614) 856-6000

Affiliation Type Desc:	Operator
Entity Name:	BATH & BODY WORKS #2077
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported

BATH & BODY WORKS #2077 (Continued) **S121782685**

Affiliation Zip: Not reported
Affiliation Phone: (925) 516-4352

B20 **BATH & BODY WORKS #2077** **RCRA NonGen / NLR** **1024859825**
East **2505 SAND CREEK RD SPACE H-2** **CAL000427473**
< 1/8 **BRENTWOOD, CA 94513**
0.123 mi.
651 ft. **Site 13 of 14 in cluster B**

Relative:
Lower

Actual:
130 ft.

RCRA NonGen / NLR:
Date form received by agency: 2017-05-08 00:00:00.0
Facility name: BATH & BODY WORKS #2077
Facility address: 2505 SAND CREEK RD SPACE H-2
BRENTWOOD, CA 94513
EPA ID: CAL000427473
Mailing address: 2 LIMITED PKWY
COLUMBUS, OH 43230
Contact: MIKE RYAN
Contact address: 2 LIMITED PKWY
COLUMBUS, OH 43230
Contact country: Not reported
Contact telephone: 614-415-1769
Contact email: MRYAN@LB.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: BATH & BODY WORKS LLC
Owner/operator address: 7 LIMITED PKWY
REYNOLDSBURG, OH 43068
Owner/operator country: Not reported
Owner/operator telephone: 614-856-6000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: MIKE RYAN
Owner/operator address: 2 LIMITED PKWY
COLUMBUS, OH 43230
Owner/operator country: Not reported
Owner/operator telephone: 614-415-1769
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No

BATH & BODY WORKS #2077 (Continued) **1024859825**

Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

B21 **HOLLISTER CO** **RCRA NonGen / NLR** **1024820379**
East **2505 SAND CREEK RD** **CAL000333470**
< 1/8 **BRENTWOOD, CA 94513**
0.123 mi.
651 ft. **Site 14 of 14 in cluster B**

Relative: **Lower**

Actual: **130 ft.**

RCRA NonGen / NLR:

Date form received by agency:	2008-06-09 00:00:00.0
Facility name:	HOLLISTER CO
Facility address:	2505 SAND CREEK RD BRENTWOOD, CA 94513
EPA ID:	CAL000333470
Mailing address:	6301 FITCH PATH NEW ALBANY, OH 43054-0000
Contact:	IAN KUPFERBERG
Contact address:	6301 FITCH PATH NEW ALBANY, OH 43054
Contact country:	Not reported
Contact telephone:	614-283-7930
Contact email:	IAN_KUPFERBERG@ANFCORP.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	IAN KUPFERBERG
Owner/operator address:	6301 FITCH PATH NEW ALBANY, OH 43054
Owner/operator country:	Not reported
Owner/operator telephone:	614-283-7930
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	ABERCROMBIE & FITCH CO & SUBSIDIAR
Owner/operator address:	6301 FITCH PATH NEW ALBANY, OH 43054

HOLLISTER CO (Continued) **1024820379**

Owner/operator country: Not reported
Owner/operator telephone: 614-283-6500
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

C22 **KELLY-MOORE PAINT CO INC** **RCRA NonGen / NLR** **1024820180**
East **2480 SAND CREEK RD** **CAL000332511**
1/8-1/4 **BRENTWOOD, CA 94513**
0.141 mi.
745 ft. **Site 1 of 18 in cluster C**

Relative: **Lower**

Actual: **128 ft.**

RCRA NonGen / NLR:
Date form received by agency: 2008-05-09 00:00:00.0
Facility name: KELLY-MOORE PAINT CO INC
Facility address: 2480 SAND CREEK RD
BRENTWOOD, CA 94513
EPA ID: CAL000332511
Mailing address: 987 COMMERCIAL ST
SAN CARLOS, CA 94070-4108
Contact: JANET BAILEY
Contact address: 987 COMMERCIAL ST
SAN CARLOS, CA 94070
Contact country: Not reported
Contact telephone: 650-610-4151
Contact email: JBAILEY@KELLYMOORE.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: JANET BAILEY
Owner/operator address: 987 COMMERCIAL ST
SAN CARLOS, CA 94070
Owner/operator country: Not reported

KELLY-MOORE PAINT CO INC (Continued) **1024820180**

Owner/operator telephone: 650-610-4151
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: KELLY-MOORE PAINT CO INC
Owner/operator address: 987 COMMERCIAL ST
SAN CARLOS, CA 94070
Owner/operator country: Not reported
Owner/operator telephone: 650-592-8337
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

C23 **KELLY-MOORE PAINT CO INC** **CERS HAZ WASTE** **S111160076**
East **2480 SAND CREEK RD** **HAZNET** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513** **CONTRA COSTA CO. SITE LIST**
0.141 mi. **CERS**
745 ft. **Site 2 of 18 in cluster C** **HWTS**

Relative:
Lower

Actual:
128 ft.

CERS HAZ WASTE:
Name: 620- KELLY MOORE PAINTS
Address: 2480 SAND CREEK RD
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 87480
CERS ID: 10464874
CERS Description: Hazardous Waste Generator

HAZNET:
Name: KELLY-MOORE PAINT CO INC
Address: 2480 SAND CREEK RD

KELLY-MOORE PAINT CO INC (Continued) **S111160076**

Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 94513
Contact:	JANET BAILEY
Telephone:	6506104151
Mailing Name:	Not reported
Mailing Address:	987 COMMERCIAL ST
Year:	2017
Gepaid:	CAL000332511
TSD EPA ID:	ARD981057870
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.225

Additional Info:

Year:	2017
Gen EPA ID:	CAL000332511
Shipment Date:	20170801
Creation Date:	7/20/2018 18:30:10
Receipt Date:	20170808
Manifest ID:	000176689DAT
Trans EPA ID:	CAR000179747
Trans Name:	INGENIUM (MILPITAS)
Trans 2 EPA ID:	CAD982523433
Trans 2 Name:	DILLARD ENVIRONMENTAL SERVICE
TSDF EPA ID:	ARD981057870
Trans Name:	RINECO
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.005
Waste Quantity:	10
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170801
Creation Date:	7/20/2018 18:30:10
Receipt Date:	20170808
Manifest ID:	000176689DAT
Trans EPA ID:	CAR000179747
Trans Name:	INGENIUM (MILPITAS)
Trans 2 EPA ID:	CAD982523433
Trans 2 Name:	DILLARD ENVIRONMENTAL SERVICE
TSDF EPA ID:	ARD981057870
Trans Name:	RINECO
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D005

KELLY-MOORE PAINT CO INC (Continued) **S111160076**

Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.04
Waste Quantity:	80
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170801
Creation Date:	11/1/2018 18:30:30
Receipt Date:	20170807
Manifest ID:	000176690DAT
Trans EPA ID:	CAR000179747
Trans Name:	INGENIUM (MILPITAS)
Trans 2 EPA ID:	CAD982523433
Trans 2 Name:	DILLARD ENVIRONMENTAL SERVICES
TSDF EPA ID:	INR000127621
Trans Name:	COVANTA ENVIRONMENTAL SOLUTIONS LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	291 - Latex waste
RCRA Code:	Not reported
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.02
Waste Quantity:	40
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170801
Creation Date:	7/20/2018 18:30:10
Receipt Date:	20170808
Manifest ID:	000176689DAT
Trans EPA ID:	CAR000179747
Trans Name:	INGENIUM (MILPITAS)
Trans 2 EPA ID:	CAD982523433
Trans 2 Name:	DILLARD ENVIRONMENTAL SERVICE
TSDF EPA ID:	ARD981057870
Trans Name:	RINECO
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D005
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.115
Waste Quantity:	230
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

KELLY-MOORE PAINT CO INC (Continued) **S111160076**

Shipment Date:	20170323
Creation Date:	5/11/2018 18:34:27
Receipt Date:	20170404
Manifest ID:	017088425JJK
Trans EPA ID:	CAR000179747
Trans Name:	INGENIUM (MILPITAS)
Trans 2 EPA ID:	CAD982523433
Trans 2 Name:	DILLARD ENVIRONMENTAL SERVICES
TSDF EPA ID:	ARD981057870
Trans Name:	RINECO
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.005
Waste Quantity:	10
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20170323
Creation Date:	5/11/2018 18:34:27
Receipt Date:	20170404
Manifest ID:	017088425JJK
Trans EPA ID:	CAR000179747
Trans Name:	INGENIUM (MILPITAS)
Trans 2 EPA ID:	CAD982523433
Trans 2 Name:	DILLARD ENVIRONMENTAL SERVICES
TSDF EPA ID:	ARD981057870
Trans Name:	RINECO
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.06
Waste Quantity:	120
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CONTRA COSTA CO. SITE LIST:

Name:	620- KELLY MOORE PAINTS
Address:	2480 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0031456
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP: 1K-10K LBS, 0-19 EMPLOYEES
Region:	CONTRA COSTA

KELLY-MOORE PAINT CO INC (Continued) **S111160076**

Cupa Number: 774341

Name: 620- KELLY MOORE PAINTS
Address: 2480 SAND CREEK RD
City: BRENTWOOD
Facility ID: FA0031456
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG: LESS THAN 5 TONS/YEAR
Region: CONTRA COSTA
Cupa Number: 774341

CERS:
Name: 620- KELLY MOORE PAINTS
Address: 2480 SAND CREEK RD
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 87480
CERS ID: 10464874
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 87480
Site Name: 620- Kelly Moore Paints
Violation Date: 06-24-2014
Citation: HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description: Haz Waste Generator Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 06/27/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 06-24-2014
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-18-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-18-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department

KELLY-MOORE PAINT CO INC (Continued) **S111160076**

Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 87480
Site Name: 620- Kelly Moore Paints
Site Address: 2480 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 06-24-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Coordinates:
Site ID: 87480
Facility Name: 620- Kelly Moore Paints
Env Int Type Code: HWG
Program ID: 10464874
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.943470
Longitude: -121.737070

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Contra Costa County Health Services Department
Entity Title: Not reported
Affiliation Address: 4585 Pacheco BlvdSuite 100
Affiliation City: Martinez
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94553
Affiliation Phone: (925) 335-3200

Affiliation Type Desc: Environmental Contact
Entity Name: Adam Gollihar
Entity Title: Not reported
Affiliation Address: 2480 San Creek Rd
Affiliation City: Brentwood
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94513
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: Att: Mary Logue 987 COMMERCIAL ST.
Affiliation City: SAN CARLOS
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94070

KELLY-MOORE PAINT CO INC (Continued) **S111160076**

Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	KELLY MOORE PAINT COMPANY, INC
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 592-8337
Affiliation Type Desc:	Parent Corporation
Entity Name:	0620 Kelly Moore Paint Company
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Document Preparer
Entity Name:	Jeff Martin
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Adam Gollihar
Entity Title:	STORE MANAGER
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Kelly Moore Paint Company
Entity Title:	Not reported
Affiliation Address:	987 COMMERCIAL ST.
Affiliation City:	SAN CARLOS
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94070
Affiliation Phone:	(650) 592-8337
Affiliation Type Desc:	Property Owner
Entity Name:	Sand Creek Crossing/Colliers Int.
Entity Title:	Not reported
Affiliation Address:	P.O. Box 844578
Affiliation City:	Los Angeles

KELLY-MOORE PAINT CO INC (Continued) **S111160076**

Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94506
Affiliation Phone:	(925) 279-0120

HWTS:

Name:	KELLY-MOORE PAINT CO INC
Address:	2480 SAND CREEK RD
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 94513
EPA ID:	CAL000332511
Inactive Date:	Not reported
Create Date:	05/09/2008
Last Act Date:	08/29/2019
Mailing Name:	Not reported
Mailing Address:	987 COMMERCIAL ST
Mailing Address 2:	Not reported
Mailing City,State,Zip:	SAN CARLOS, CA 940704108
Owner Name:	KELLY-MOORE PAINT CO INC
Owner Address:	987 COMMERCIAL ST
Owner Address 2:	Not reported
Owner City,State,Zip:	SAN CARLOS, CA 940704018
Contact Name:	JANET BAILEY
Contact Address:	987 COMMERCIAL ST
Contact Address 2:	Not reported
City,State,Zip:	SAN CARLOS, CA 94070

NAICS:

EPA ID:	CAL000332511
Create Date:	2008-05-20 13:37:23
NAICS Code:	44419
NAICS Description:	Other Building Material Dealers
Issued EPA ID Date:	2008-05-09 09:32:12
Inactive Date:	Not reported
Facility Name:	KELLY-MOORE PAINT CO INC
Facility Address:	2480 SAND CREEK RD
Facility Address 2:	Not reported
Facility City:	BRENTWOOD
Facility County:	07
Facility State:	CA
Facility Zip:	94513

EPA ID:	CAL000332511
Create Date:	2008-05-30 14:06:02
NAICS Code:	44412
NAICS Description:	Paint and Wallpaper Stores
Issued EPA ID Date:	2008-05-09 09:32:12
Inactive Date:	Not reported
Facility Name:	KELLY-MOORE PAINT CO INC
Facility Address:	2480 SAND CREEK RD
Facility Address 2:	Not reported
Facility City:	BRENTWOOD
Facility County:	07
Facility State:	CA
Facility Zip:	94513

C24
East
1/8-1/4
0.150 mi.
792 ft.

Relative:
Lower

Actual:
127 ft.

PARTY CITY #444 BRENTWOOD
2470 SAND CREEK RD
BRENTWOOD, CA 94513

Site 3 of 18 in cluster C

CERS HAZ WASTE
CHMIRS
HAZNET
CONTRA COSTA CO. SITE LIST
CERS
HWTS

S110419064
N/A

CERS HAZ WASTE:

Name:	PARTY CITY #444 BRENTWOOD
Address:	2470 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	372654
CERS ID:	10673806
CERS Description:	Hazardous Waste Generator

CHMIRS:

Name:	Not reported
Address:	2470 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA
OES Incident Number:	08-2547
OES notification:	04/03/2008
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Road
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1630
Year:	2008

PARTY CITY #444 BRENTWOOD (Continued) **S110419064**

Agency:	Contra Costa HAZMAT
Incident Date:	4/3/2008
Admin Agency:	Contra Costa County Health Services Dept.
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Muriatic acid
Quantity Released:	12
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Due to a fire in the back of a truck, chemical released. Clean up completed.

HAZNET:

Name:	PARTY CITY CORPORATION #444
Address:	2470 SAND CREEK RD
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 94513
Contact:	MARGARET CASTILLO
Telephone:	9734538600
Mailing Name:	Not reported
Mailing Address:	PO BOX 2513
Year:	2017
Gepaid:	CAL000417986
TSD EPA ID:	CAD008252405
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.005
Year:	2017
Gepaid:	CAL000417986
TSD EPA ID:	CAD008252405
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.005

Additional Info:

Year:	2017

PARTY CITY #444 BRENTWOOD (Continued) **S110419064**

Gen EPA ID:	CAL000417986
Shipment Date:	20170531
Creation Date:	7/11/2018 18:31:13
Receipt Date:	20170613
Manifest ID:	017051195JJK
Trans EPA ID:	CAR000245050
Trans Name:	ECOTRANS RECYCLING
Trans 2 EPA ID:	CAR000009910
Trans 2 Name:	CALIFORNIA ENVIRONMENTAL & LITHO
TSDF EPA ID:	CAD008252405
Trans Name:	PACIFIC RESOURCE RECOVERY SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.005
Waste Quantity:	10
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170201
Creation Date:	5/11/2018 18:31:59
Receipt Date:	20170208
Manifest ID:	016867118JJK
Trans EPA ID:	CAD028277036
Trans Name:	ASBURY ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008252405
Trans Name:	PACIFIC RESOURCE RECOVERY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170201
Creation Date:	5/11/2018 18:31:59
Receipt Date:	20170208
Manifest ID:	016867118JJK
Trans EPA ID:	CAD028277036
Trans Name:	ASBURY ENVIRONMENTAL SERVICES

PARTY CITY #444 BRENTWOOD (Continued) **S110419064**

Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008252405
Trans Name:	PACIFIC RESOURCE RECOVERY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CONTRA COSTA CO. SITE LIST:

Name:	PARTY CITY #444 BRENTWOOD
Address:	2470 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0038066
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP: LESS THAN 1000 LBS
Region:	CONTRA COSTA
Cupa Number:	775306

Name:	PARTY CITY #444 BRENTWOOD
Address:	2470 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0038066
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: LESS THAN 5 TONS/YEAR
Region:	CONTRA COSTA
Cupa Number:	775306

CERS:

Name:	PARTY CITY #444 BRENTWOOD
Address:	2470 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	372654
CERS ID:	10673806
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	372654
Site Name:	Party City #444 Brentwood
Violation Date:	08-22-2016
Citation:	HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description:	Business Plan Program - Training - General
Violation Notes:	Returned to compliance on 09/22/2016.
Violation Division:	Contra Costa County Health Services Department

PARTY CITY #444 BRENTWOOD (Continued) **S110419064**

Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	372654
Site Name:	Party City #444 Brentwood
Violation Date:	09-10-2019
Citation:	22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description:	Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.
Violation Notes:	OBSERVATION: Uniform Hazardous Waste Manifests for 2019, and possibly additional from 2018, were not available at the time of inspection. CORRECTIVE ACTION: Locate a copy of all manifests for 2018 and 2019 and submit copies to the CUPA.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS
Site ID:	372654
Site Name:	Party City #444 Brentwood
Violation Date:	08-22-2016
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Administration/Documentation - General
Violation Notes:	Returned to compliance on 09/22/2016.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS
Site ID:	372654
Site Name:	Party City #444 Brentwood
Violation Date:	09-10-2019
Citation:	HSC 6.5 25123.3(h) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)
Violation Description:	Failure to determine the status of any hazardous waste if a signed copy of the manifest isnG t received within 35 days of the date the waste was accepted by the initial transporter and/or to submit an Exception Report to DTSC if a signed copy of the manifest isnG t received within 60 days of the date the waste was accepted by the initial transporter.
Violation Notes:	OBSERVATION: The generator failed to file an exception report with the DTSC after not receiving a destination facility signed copy of the uniform hazardous waste manifest within 60 days of the waste shipment date. CORRECTIVE ACTION: Either locate a copy of the missing manifests or prepare and submit an exception report to DTSC (DTSC Report Repository; Generator Information Services Section; P.O. Box 806; Sacramento, CA 95812-0806). Submit copies to the CUPA.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection

PARTY CITY #444 BRENTWOOD (Continued) **S110419064**

Eval Date:	08-22-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	10-12-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	09-10-2019
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	09-10-2019
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-22-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	10-12-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Enforcement Action:

Site ID:	372654
Site Name:	Party City #444 Brentwood
Site Address:	2470 SAND CREEK RD

PARTY CITY #444 BRENTWOOD (Continued) **S110419064**

Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 08-22-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 372654
Site Name: Party City #444 Brentwood
Site Address: 2470 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 08-22-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 372654
Site Name: Party City #444 Brentwood
Site Address: 2470 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 09-10-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: Kimberly Philips
Entity Title: Not reported
Affiliation Address: 25 Green Pond Road, Suite #1
Affiliation City: Rockaway
Affiliation State: NJ
Affiliation Country: Not reported
Affiliation Zip: 07866
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Tyreen Torner
Entity Title: Attorney for Party City Corporation
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

PARTY CITY #444 BRENTWOOD (Continued) **S110419064**

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2470 Sand Creek Rd
Affiliation City:	Brentwood
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94513
Affiliation Phone:	Not reported

Affiliation Type Desc:	Operator
Entity Name:	Party City Corporation
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(973) 983-0888

Affiliation Type Desc:	Parent Corporation
Entity Name:	Party City Corporation
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200

Affiliation Type Desc:	Document Preparer
Entity Name:	Rosine Marschke
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	Party City Corporation
Entity Title:	Not reported
Affiliation Address:	25 Green Pond Road, Suite #1
Affiliation City:	Rockaway
Affiliation State:	NJ
Affiliation Country:	United States

PARTY CITY #444 BRENTWOOD (Continued) **S110419064**

Affiliation Zip: 07866
Affiliation Phone: (973) 983-0888

HWTS:
Name: PARTY CITY CORPORATION #444
Address: 2470 SAND CREEK RD
Address 2: Not reported
City,State,Zip: BRENTWOOD, CA 94513
EPA ID: CAL000417986
Inactive Date: Not reported
Create Date: 06/09/2016
Last Act Date: 08/13/2019
Mailing Name: Not reported
Mailing Address: PO BOX 2513
Mailing Address 2: Not reported
Mailing City,State,Zip: TRUCKEE, CA 961602513
Owner Name: PARTY CITY CORPORATION
Owner Address: 25 GREEN POND RD STE 1
Owner Address 2: Not reported
Owner City,State,Zip: ROCKAWAY, NJ 07866
Contact Name: KATINA BERRY
Contact Address: 25 GREEN POND RD STE 1
Contact Address 2: Not reported
City,State,Zip: ROCKAWAY, NJ 07866

NAICS:
EPA ID: CAL000417986
Create Date: 2016-06-09 15:19:30
NAICS Code: 45299
NAICS Description: All Other General Merchandise Stores
Issued EPA ID Date: 2016-06-09 15:19:30
Inactive Date: Not reported
Facility Name: PARTY CITY CORPORATION #444
Facility Address: 2470 SAND CREEK RD
Facility Address 2: Not reported
Facility City: BRENTWOOD
Facility County: 07
Facility State: CA
Facility Zip: 94513

C25 **PARTY CITY CORPORATION #444** **RCRA NonGen / NLR** **1024855421**
East **2470 SAND CREEK RD** **CAL000417986**
1/8-1/4 **BRENTWOOD, CA 94513**
0.150 mi.
792 ft. **Site 4 of 18 in cluster C**

Relative:
Lower

Actual:
127 ft.

RCRA NonGen / NLR:
Date form received by agency: 2016-06-09 00:00:00.0
Facility name: PARTY CITY CORPORATION #444
Facility address: 2470 SAND CREEK RD
BRENTWOOD, CA 94513
EPA ID: CAL000417986
Mailing address: PO BOX 2513
TRUCKEE, CA 96160-2513
Contact: MARGARET CASTILLO
Contact address: 25 GREEN POND RD STE 1

PARTY CITY CORPORATION #444 (Continued) **1024855421**

ROCKAWAY, NJ 07866
Contact country: Not reported
Contact telephone: 973-453-8600
Contact email: MCASTILLO@PARTYCITY.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: PARTY CITY CORPORATION
Owner/operator address: 25 GREEN POND RD STE 1
ROCKAWAY, NJ 07866
Owner/operator country: Not reported
Owner/operator telephone: 973-453-8600
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: MARGARET CASTILLO
Owner/operator address: 25 GREEN POND RD STE 1
ROCKAWAY, NJ 07866
Owner/operator country: Not reported
Owner/operator telephone: 973-453-8600
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

C26 **REI #126** **CONTRA COSTA CO. SITE LIST** **S113704569**
East **2475 S SAND CREEK RD 100** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.151 mi.
796 ft. **Site 5 of 18 in cluster C**

Relative:
Lower

Actual:
128 ft.

CONTRA COSTA CO. SITE LIST:

Name:	REI #126
Address:	2475 S SAND CREEK RD 100
City:	BRENTWOOD
Facility ID:	FA0034018
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: REPORTED ZERO
Region:	CONTRA COSTA
Cupa Number:	774632

C27 **HOMEGOODS 0237** **RCRA NonGen / NLR** **1024847099**
East **2460 SAND CREEK RD** **CAL000401789**
1/8-1/4 **BRENTWOOD, CA 94513**
0.159 mi.
840 ft. **Site 6 of 18 in cluster C**

Relative:
Lower

Actual:
127 ft.

RCRA NonGen / NLR:

Date form received by agency:	2014-11-04 00:00:00.0
Facility name:	HOMEGOODS 0237
Facility address:	2460 SAND CREEK RD BRENTWOOD, CA 94513
EPA ID:	CAL000401789
Mailing address:	770 COCHITUATE RD FRAMINGHAM, MA 01701
Contact:	PAUL KANGAS
Contact address:	770 COCHITUATE RD 300.1AN FRAMINGHAM, MA 01701
Contact country:	Not reported
Contact telephone:	774-308-3651
Contact email:	PAUL_KANGAS@TJX.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	HOMEGOODS INC
Owner/operator address:	770 COCHITUATE RD FRAMINGHAM, MA 01701
Owner/operator country:	Not reported
Owner/operator telephone:	774-308-3651
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	PAUL KANGAS
Owner/operator address:	770 COCHITUATE RD 300.1AN FRAMINGHAM, MA 01701
Owner/operator country:	Not reported

HOMEGOODS 0237 (Continued) **1024847099**

Owner/operator telephone:	774-308-3651
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

C28 **HOMEGOODS 0237** **CERS HAZ WASTE** **S117047861**
East **2460 SAND CREEK RD** **CONTRA COSTA CO. SITE LIST** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.159 mi.
840 ft. **Site 7 of 18 in cluster C**

Relative: **Lower**

Actual: **127 ft.**

CERS HAZ WASTE:

Name:	HOMEGOODS 0237
Address:	2460 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	123053
CERS ID:	10485823
CERS Description:	Hazardous Waste Generator

Violations:

Site ID:	123053
Site Name:	Homegoods 0237
Violation Date:	12-27-2013
Citation:	HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description:	Haz Waste Generator Program - Administration/Documentation - General
Violation Notes:	Returned to compliance on 01/24/2014.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Site ID:	123053
Site Name:	Homegoods 0237
Violation Date:	12-27-2013
Citation:	HSC 6.67 Multiple Sections - California Health and Safety Code, Chapter 6.67, Section(s) Multiple Sections

HOMEGOODS 0237 (Continued) **S117047861**

Violation Description: Haz Waste Generator Program - Training - General
Violation Notes: Returned to compliance on 01/24/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Site ID: 123053
Site Name: Homegoods 0237
Violation Date: 12-27-2013
Citation: HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description: Haz Waste Generator Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 03/19/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 05-01-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-05-2019
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-27-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-01-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-19-2014
Violations Found: No

HOMEGOODS 0237 (Continued) **S117047861**

Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Enforcement Action:

Site ID:	123053
Site Name:	Homegoods 0237
Site Address:	2460 SAND CREEK RD
Site City:	BRENTWOOD
Site Zip:	94513
Enf Action Date:	12-27-2013
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	HW
Enf Action Source:	CERS

Coordinates:

Site ID:	123053
Facility Name:	Homegoods 0237
Env Int Type Code:	HWG
Program ID:	10485823
Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	37.943470
Longitude:	-121.736870

Affiliation:

Affiliation Type Desc:	Document Preparer
Entity Name:	Susan Allen
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200

Affiliation Type Desc:	Legal Owner
Entity Name:	TJX Companies, Inc
Entity Title:	Not reported
Affiliation Address:	770 Cochituate Road
Affiliation City:	Framingham

HOMEGOODS 0237 (Continued) **S117047861**

Affiliation State:	MA
Affiliation Country:	United States
Affiliation Zip:	01701
Affiliation Phone:	(774) 308-3651
Affiliation Type Desc:	Operator
Entity Name:	Homegoods
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(774) 308-3651
Affiliation Type Desc:	Identification Signer
Entity Name:	Paul Kangas
Entity Title:	SVP, Chief Compliance Officer
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	The TJX Companies, Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Paul Kangas
Entity Title:	Not reported
Affiliation Address:	770 Cochituate Road 300.1AN
Affiliation City:	Framingham
Affiliation State:	MA
Affiliation Country:	Not reported
Affiliation Zip:	01701
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	770 Cochituate Road
Affiliation City:	Framingham
Affiliation State:	MA
Affiliation Country:	Not reported
Affiliation Zip:	01701
Affiliation Phone:	Not reported

HOMEGOODS 0237 (Continued) **S117047861**

CONTRA COSTA CO. SITE LIST:
Name: HOMEGOODS 0237
Address: 2460 SAND CREEK RD
City: BRENTWOOD
Facility ID: FA0035185
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG: LESS THAN 5 TONS/YEAR
Region: CONTRA COSTA
Cupa Number: 774814

C29 **ULTA BEAUTY 353** **RCRA NonGen / NLR** **1024840262**
East **2465 SAND CREEK RD** **CAL000388869**
1/8-1/4 **BRENTWOOD, CA 94513**
0.159 mi.
841 ft. **Site 8 of 18 in cluster C**

Relative:
Lower

Actual:
127 ft.

RCRA NonGen / NLR:
Date form received by agency: 2013-08-23 00:00:00.0
Facility name: ULTA BEAUTY 353
Facility address: 2465 SAND CREEK RD
BRENTWOOD, CA 94513
EPA ID: CAL000388869
Mailing address: 1000 REMINGTON BLVD, SUITE 120
ATTN: JEREMY HOJNICKI - OPERATIONS
BOLINGBROOK, IL 60440
Contact: JEREMY HOJNICKI
Contact address: 1000 REMINGTON BLVD STE 120
BOLINGBROOK, IL 60440
Contact country: Not reported
Contact telephone: 630-296-1552
Contact email: JHOJNICKI@ULTA.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: ULTA SALON COSMETICS & FRAGRANCE IN
Owner/operator address: 1000 REMINGTON BLVD SUITE 120
BOLINGBROOK, IL 60440
Owner/operator country: Not reported
Owner/operator telephone: 630-410-4800
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: JEREMY HOJNICKI
Owner/operator address: 1000 REMINGTON BLVD STE 120
BOLINGBROOK, IL 60440
Owner/operator country: Not reported
Owner/operator telephone: 630-296-1552
Owner/operator email: Not reported
Owner/operator fax: Not reported

ULTA BEAUTY 353 (Continued) **1024840262**

Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

C30 **ULTA BEAUTY 353** **CERS HAZ WASTE** **S117311600**
East **2465 SAND CREEK RD** **HAZNET** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513** **CONTRA COSTA CO. SITE LIST**
0.159 mi. **CERS**
841 ft. **Site 9 of 18 in cluster C** **HWTS**

Relative: CERS HAZ WASTE:
Lower Name: ULTA BEAUTY #353
Actual: Address: 2465 SAND CREEK RD
127 ft. City,State,Zip: BRENTWOOD, CA 94513
Site ID: 364135
CERS ID: 10657762
CERS Description: Hazardous Waste Generator

HAZNET:
Name: ULTA BEAUTY 353
Address: 2465 SAND CREEK RD
Address 2: Not reported
City,State,Zip: BRENTWOOD, CA 94513
Contact: JEREMY HOJNICKI
Telephone: 6302961552
Mailing Name: Not reported
Mailing Address: 1000 REMINGTON BLVD, SUITE 120

Year: 2017
Gepaid: CAL000388869
TSD EPA ID: CAD008364432
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.172

Year: 2017

ULTA BEAUTY 353 (Continued) **S117311600**

Gepaid:	CAL000388869
TSD EPA ID:	NVD980895338
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.322
Year:	2017
Gepaid:	CAL000388869
TSD EPA ID:	CAD980884183
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	1.269
Year:	2017
Gepaid:	CAL000388869
TSD EPA ID:	CAD980884183
CA Waste Code:	181 - Other inorganic solid waste
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0015
Year:	2016
Gepaid:	CAL000388869
TSD EPA ID:	CAD980884183
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	1.632
Year:	2016
Gepaid:	CAL000388869
TSD EPA ID:	CAD980884183
CA Waste Code:	181 - Other inorganic solid waste
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.016
Year:	2016
Gepaid:	CAL000388869
TSD EPA ID:	CAD980884183
CA Waste Code:	141 - Off-specification, aged or surplus inorganics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.009
Year:	2015
Gepaid:	CAL000388869
TSD EPA ID:	NVD980895338
CA Waste Code:	214 - Unspecified solvent mixture
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.024
Year:	2015
Gepaid:	CAL000388869

ULTA BEAUTY 353 (Continued) **S117311600**

TSD EPA ID: CAD980884183
CA Waste Code: 122 - Alkaline solution without metals pH >= 12.5
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.038

Year: 2015
Gepaid: CAL000388869
TSD EPA ID: CAD980884183
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.488

Click this hyperlink while viewing on your computer to access
19 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:
Year: 2017
Gen EPA ID: CAL000388869

Shipment Date: 20171222
Creation Date: 10/16/2018 18:31:51
Receipt Date: 20180118
Manifest ID: 008629089FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: CAR000175422
Trans 2 Name: WORLDWIDE RECOVERY SYSTEMS
TSDF EPA ID: AZR000515924
Trans Name: YUMA YES LLC
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
CA Waste Code: 331 - Off-specification, aged, or surplus organics
RCRA Code: Not reported
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons: 0.0795
Waste Quantity: 159
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20171222
Creation Date: 10/26/2018 18:30:27
Receipt Date: 20180116
Manifest ID: 008629088FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: NED986382133
Trans 2 Name: SMITH SYSTEMS TRANSPORTATION
TSDF EPA ID: NVD980895338
Trans Name: 21ST CENTURY EMN LLC

ULTA BEAUTY 353 (Continued) **S117311600**

TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.009
Waste Quantity:	18
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20171222
Creation Date:	10/16/2018 18:31:51
Receipt Date:	20180118
Manifest ID:	008629089FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000175422
Trans 2 Name:	WORLDWIDE RECOVERY SYSTEMS
TSDF EPA ID:	AZR000515924
Trans Name:	YUMA YES LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0765
Waste Quantity:	153
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20171222
Creation Date:	10/26/2018 18:30:27
Receipt Date:	20180116
Manifest ID:	008629088FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0005

ULTA BEAUTY 353 (Continued) **S117311600**

Waste Quantity:	1
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20171113
Creation Date:	6/13/2018 18:31:23
Receipt Date:	20171122
Manifest ID:	008629443FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.1355
Waste Quantity:	271
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20171113
Creation Date:	7/20/2018 18:30:15
Receipt Date:	20171206
Manifest ID:	008629444FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0035
Waste Quantity:	7
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Shipment Date:	20171113
Creation Date:	7/20/2018 18:30:15
Receipt Date:	20171206
Manifest ID:	008629444FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20171018
Creation Date:	11/8/2018 18:30:45
Receipt Date:	20171108
Manifest ID:	009149334FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.02
Waste Quantity:	40
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20171018
Creation Date:	6/13/2018 18:30:34
Receipt Date:	20171024
Manifest ID:	009149333FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.069
Waste Quantity:	138
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20171018
Creation Date:	6/13/2018 18:30:34
Receipt Date:	20171024
Manifest ID:	009149333FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.068
Waste Quantity:	136
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2015
Gen EPA ID:	CAL000388869

Shipment Date:	20151228
Creation Date:	9/26/2016 18:30:40
Receipt Date:	20160114
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC

ULTA BEAUTY 353 (Continued) **S117311600**

TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0125
Waste Quantity:	25
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151228
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.048
Waste Quantity:	96
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151228
Creation Date:	9/26/2016 18:30:40
Receipt Date:	20160114
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0005

ULTA BEAUTY 353 (Continued) **S117311600**

Waste Quantity:	1
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151228
Creation Date:	9/26/2016 18:30:40
Receipt Date:	20160114
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0015
Waste Quantity:	3
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151228
Creation Date:	9/26/2016 18:30:40
Receipt Date:	20160114
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.009
Waste Quantity:	18
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Shipment Date:	20151228
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.072
Waste Quantity:	144
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20151201
Creation Date:	3/2/2016 22:15:14
Receipt Date:	20151210
Manifest ID:	008675464FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.031
Waste Quantity:	62
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20151201
Creation Date:	3/2/2016 22:15:14
Receipt Date:	20151210
Manifest ID:	008675464FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617

ULTA BEAUTY 353 (Continued) **S117311600**

Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0205
Waste Quantity:	41
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151201
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	008675464FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.062
Waste Quantity:	124
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151201
Creation Date:	3/2/2016 22:15:14
Receipt Date:	20151210
Manifest ID:	008675464FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0405
Waste Quantity:	81
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2016
Gen EPA ID:	CAL000388869
Shipment Date:	20151228
Creation Date:	9/26/2016 18:30:40
Receipt Date:	20160114
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0125
Waste Quantity:	25
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151228
Creation Date:	9/26/2016 18:30:40
Receipt Date:	20160114
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.009

ULTA BEAUTY 353 (Continued) **S117311600**

Waste Quantity:	18
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151228
Creation Date:	9/26/2016 18:30:40
Receipt Date:	20160114
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0005
Waste Quantity:	1
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151228
Creation Date:	9/26/2016 18:30:40
Receipt Date:	20160114
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0015
Waste Quantity:	3
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Shipment Date:	20151228
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.072
Waste Quantity:	144
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20151228
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.048
Waste Quantity:	96
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20151201
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	008675464FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617

ULTA BEAUTY 353 (Continued) **S117311600**

Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.062
Waste Quantity:	124
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151201
Creation Date:	3/2/2016 22:15:14
Receipt Date:	20151210
Manifest ID:	008675464FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0405
Waste Quantity:	81
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151201
Creation Date:	3/2/2016 22:15:14
Receipt Date:	20151210
Manifest ID:	008675464FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002

ULTA BEAUTY 353 (Continued) **S117311600**

Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.038
Waste Quantity:	76
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151201
Creation Date:	3/2/2016 22:15:14
Receipt Date:	20151210
Manifest ID:	008675464FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0205
Waste Quantity:	41
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2013
Gen EPA ID:	CAL000388869
Shipment Date:	20131219
Creation Date:	5/14/2014 22:14:54
Receipt Date:	20131227
Manifest ID:	000661397PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.008

ULTA BEAUTY 353 (Continued) **S117311600**

Waste Quantity:	16
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131219
Creation Date:	5/14/2014 22:14:54
Receipt Date:	20131227
Manifest ID:	000661397PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	214 - Unspecified solvent mixture
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0085
Waste Quantity:	17
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131219
Creation Date:	5/14/2014 22:14:54
Receipt Date:	20131227
Manifest ID:	000661397PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	352 - Other organic solids
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0765
Waste Quantity:	153
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Shipment Date:	20131121
Creation Date:	4/24/2014 22:15:08
Receipt Date:	20131204
Manifest ID:	000644758PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVD980895338
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.005
Waste Quantity:	10
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20131121
Creation Date:	4/24/2014 22:15:08
Receipt Date:	20131204
Manifest ID:	000644758PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVD980895338
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	214 - Unspecified solvent mixture
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0215
Waste Quantity:	43
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20131121
Creation Date:	4/24/2014 22:15:08
Receipt Date:	20131204
Manifest ID:	000644758PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVD980895338

ULTA BEAUTY 353 (Continued) **S117311600**

Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	352 - Other organic solids
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0805
Waste Quantity:	161
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131011
Creation Date:	3/12/2014 22:15:10
Receipt Date:	20131028
Manifest ID:	000616486PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVD980895338
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0145
Waste Quantity:	29
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131011
Creation Date:	3/12/2014 22:15:10
Receipt Date:	20131028
Manifest ID:	000616486PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVD980895338
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	214 - Unspecified solvent mixture
RCRA Code:	D001

ULTA BEAUTY 353 (Continued) **S117311600**

Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0115
Waste Quantity:	23
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131011
Creation Date:	3/12/2014 22:15:10
Receipt Date:	20131028
Manifest ID:	000616486PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVD980895338
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131011
Creation Date:	3/12/2014 22:15:10
Receipt Date:	20131028
Manifest ID:	000616486PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVD980895338
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	352 - Other organic solids
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.183
Waste Quantity:	366
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2014
Gen EPA ID:	CAL000388869
Shipment Date:	20141216
Creation Date:	5/8/2015 22:15:06
Receipt Date:	20141222
Manifest ID:	006361831FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141216
Creation Date:	5/8/2015 22:15:06
Receipt Date:	20141222
Manifest ID:	006361831FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	214 - Unspecified solvent mixture
RCRA Code:	U002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.009
Waste Quantity:	18
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Shipment Date:	20141216
Creation Date:	5/8/2015 22:15:06
Receipt Date:	20141222
Manifest ID:	006361831FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0335
Waste Quantity:	67
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20141216
Creation Date:	5/8/2015 22:15:06
Receipt Date:	20141222
Manifest ID:	006361831FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.029
Waste Quantity:	58
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20141118
Creation Date:	1/15/2015 22:15:01
Receipt Date:	20141121
Manifest ID:	007228104FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.049
Waste Quantity:	98
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141118
Creation Date:	1/15/2015 22:15:01
Receipt Date:	20141121
Manifest ID:	007228104FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0085
Waste Quantity:	17
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141118
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	007228104FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.028
Waste Quantity:	56
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141118
Creation Date:	1/15/2015 22:15:01
Receipt Date:	20141121
Manifest ID:	007228104FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	214 - Unspecified solvent mixture
RCRA Code:	U002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.009
Waste Quantity:	18
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141118
Creation Date:	1/15/2015 22:15:01
Receipt Date:	20141121
Manifest ID:	007228104FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0075
Waste Quantity:	15
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141024
Creation Date:	3/31/2015 22:15:05
Receipt Date:	20141103
Manifest ID:	006361706FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	214 - Unspecified solvent mixture
RCRA Code:	U002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0295
Waste Quantity:	59
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CONTRA COSTA CO. SITE LIST:

Name:	ULTA BEAUTY #353
Address:	2465 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0037657
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP: LESS THAN 1000 LBS
Region:	CONTRA COSTA
Cupa Number:	775219
Name:	ULTA BEAUTY #353
Address:	2465 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0037657
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: LESS THAN 5 TONS/YEAR
Region:	CONTRA COSTA
Cupa Number:	775219

CERS:

Name:	ULTA BEAUTY #353
Address:	2465 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	364135
CERS ID:	10657762

ULTA BEAUTY 353 (Continued) **S117311600**

CERS Description: Chemical Storage Facilities

Violations:

Site ID: 364135
Site Name: ULTA BEAUTY #353
Violation Date: 01-29-2019
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: Returned to compliance on 02/04/2019. OBSERVATION: The business failed to complete and electronically submit a site map with all required content including: north orientation, loading area, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shut offs, evacuation staging area, hazardous materials/waste storage areas and emergency response equipment. CORRECTIVE ACTION: Complete and electronically submit a site map with all required content.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 364135
Site Name: ULTA BEAUTY #353
Violation Date: 04-01-2019
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 04/09/2019. OBSERVATION: AS OF APRIL 1, 2019, CCHSHMP HAS NOT RECEIVED/ACCEPTED A COMPLETE AND CORRECT CALIFORNIA ENVIRONMENTAL REPORTING SYSTEM (CERS) SUBMITTAL FOR THE FOLLOWING SUBMITTAL ELEMENT(S): Emergency Response/Training Plans.CORRECTIVE ACTION: IMMEDIATELY LOG ONTO CERS (https://cers.calepa.ca.gov/) AND SUBMIT COMPLETE/CORRECT Emergency Response/Training Plans.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-29-2019
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-01-2019
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department

ULTA BEAUTY 353 (Continued) **S117311600**

Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-15-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-29-2019
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 02-05-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Enforcement Action:
Site ID: 364135
Site Name: ULTA BEAUTY #353
Site Address: 2465 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 01-29-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 364135
Site Name: ULTA BEAUTY #353
Site Address: 2465 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 04-01-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

ULTA BEAUTY 353 (Continued) **S117311600**

Coordinates:

Site ID:	364135
Facility Name:	ULTA BEAUTY #353
Env Int Type Code:	HWG
Program ID:	10657762
Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	37.943720
Longitude:	-121.738230

Affiliation:

Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200

Affiliation Type Desc:	Document Preparer
Entity Name:	Danielle Delise
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Environmental Contact
Entity Name:	Jeremy Hojnicki
Entity Title:	Not reported
Affiliation Address:	1000 Remington Boulevard, Suite 120
Affiliation City:	Bolingbrook
Affiliation State:	IL
Affiliation Country:	Not reported
Affiliation Zip:	60440
Affiliation Phone:	Not reported

Affiliation Type Desc:	Operator
Entity Name:	ULTA Beauty
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(630) 410-4800

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2465 Sand Creek Road
Affiliation City:	Brentwood

ULTA BEAUTY 353 (Continued) **S117311600**

Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94513
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Danielle Delise
Entity Title: Compliance Specialist
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: ULTA Beauty
Entity Title: Not reported
Affiliation Address: 1000 Remington Boulevard, Suite 120
Affiliation City: Bolingbrook
Affiliation State: IL
Affiliation Country: United States
Affiliation Zip: 60440
Affiliation Phone: (630) 410-4110

Affiliation Type Desc: Parent Corporation
Entity Name: ULTA Beauty
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

HWTS:
Name: ULTA BEAUTY 353
Address: 2465 SAND CREEK RD
Address 2: Not reported
City,State,Zip: BRENTWOOD, CA 94513
EPA ID: CAL000388869
Inactive Date: Not reported
Create Date: 08/23/2013
Last Act Date: 08/07/2019
Mailing Name: Not reported
Mailing Address: 1000 REMINGTON BLVD, SUITE 120
Mailing Address 2: ATTN: JEREMY HOJNICKI - EHS
Mailing City,State,Zip: BOLINGBROOK, IL 60440
Owner Name: ULTA SALON COSMETICS & FRAGRANCE IN
Owner Address: 1000 REMINGTON BLVD
Owner Address 2: SUITE 120
Owner City,State,Zip: BOLINGBROOK, IL 60440
Contact Name: JEREMY HOJNICKI
Contact Address: 1000 REMINGTON BLVD STE 120
Contact Address 2: Not reported
City,State,Zip: BOLINGBROOK, IL 60440

ULTA BEAUTY 353 (Continued) **S117311600**

NAICS:

EPA ID:	CAL000388869
Create Date:	2013-08-23 10:04:26
NAICS Code:	453998
NAICS Description:	All Other Miscellaneous Store Retailers (except Tobacco Stores)
Issued EPA ID Date:	2013-08-23 10:04:26
Inactive Date:	Not reported
Facility Name:	ULTA BEAUTY 353
Facility Address:	2465 SAND CREEK RD
Facility Address 2:	Not reported
Facility City:	BRENTWOOD
Facility County:	07
Facility State:	CA
Facility Zip:	94513

C31 **MAC 695434** **HAZNET** **S118119783**
East **2455 SAND CREEK RD STE 116** **NPDES** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513** **CONTRA COSTA CO. SITE LIST**
0.168 mi. **CIWQS**
888 ft. **Site 10 of 18 in cluster C** **HWTS**

Relative:
Lower

Actual:
127 ft.

HAZNET:

Name:	MAC 695434
Address:	2455 SAND CREEK RD STE 116
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 945137176
Contact:	JENNIFER VERRINE
Telephone:	6317525687
Mailing Name:	Not reported
Mailing Address:	155 PINELAWN RD. STE. 150N
Year:	2017
Gepaid:	CAR000264093
TSD EPA ID:	CAD008252405
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.297
Year:	2017
Gepaid:	CAR000264093
TSD EPA ID:	CAD008252405
CA Waste Code:	331 -
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.025

Additional Info:

Year:	2017
Gen EPA ID:	CAR000264093
Shipment Date:	20170224
Creation Date:	5/11/2018 18:33:05
Receipt Date:	20170302
Manifest ID:	015972552JJK
Trans EPA ID:	CAD982523433
Trans Name:	DILLARD ENVIRONMENTAL SERVICES #1715

MAC 695434 (Continued) **S118119783**

Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008252405
Trans Name:	PACIFIC RESOURCE RECOVERY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.198
Waste Quantity:	60
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20170216
Creation Date:	5/11/2018 18:34:48
Receipt Date:	20170227
Manifest ID:	016751517JJK
Trans EPA ID:	CAD982523433
Trans Name:	DILLARD ENVIRONMENTAL SERVICES #1715
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008252405
Trans Name:	PACIFIC RESOURCE RECOVERY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.099
Waste Quantity:	30
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20170105
Creation Date:	5/10/2018 18:30:29
Receipt Date:	20170118
Manifest ID:	016775999JJK
Trans EPA ID:	CAD028277036
Trans Name:	ASBURY ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008252405
Trans Name:	PACIFIC RESOURCE RECOVERY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site

MAC 695434 (Continued) **S118119783**

Quantity Tons:	0.025
Waste Quantity:	50
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

NPDES:

Name:	THE STREETS OF BRENTWOOD SPROUTS FARMERS MARKET
Address:	2455 SAND CREEK ROAD
City,State,Zip:	BRENTWOOD, CA 94513
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	5S07C373711
Regulatory Measure Type:	Construction
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Terminated
Status Date:	08/29/2016
Operator Name:	G&I VII Brentwood Operating LP
Operator Address:	220 East 42nd Street
Operator City:	New York
Operator State:	New York
Operator Zip:	10017

NPDES as of 03/2018:

NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	5S
Regulatory Measure ID:	459715
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	5S07C373711
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	08/29/2016
Discharge Name:	Not reported
Discharge Address:	Not reported

MAC 695434 (Continued) **S118119783**

Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	08/10/2015
Processed Date:	08/14/2015
Status:	Terminated
Status Date:	08/29/2016
Place Size:	2.9
Place Size Unit:	Acres
Contact:	Andrew Peltz
Contact Title:	Managing Director
Contact Phone:	925-516-8500
Contact Phone Ext:	Not reported
Contact Email:	kweidemann@legacydevelopment.com
Operator Name:	G&I VII Brentwood Operating LP
Operator Address:	220 East 42nd Street
Operator City:	New York
Operator State:	New York
Operator Zip:	10017
Operator Contact:	Andrew Peltz
Operator Contact Title:	Managing Director
Operator Contact Phone:	925-516-8500
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	kweidemann@legacydevelopment.com
Operator Type:	Private Business
Developer:	G&I VII Brentwood Operating LP
Developer Address:	220 East 42nd Street
Developer City:	New York
Developer State:	New York
Developer Zip:	10017
Developer Contact:	Andrew Peltz
Developer Contact Title:	Managing Director
Constype Linear Utility Ind:	N
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	N
Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commertial Ind:	N
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Not reported
Constype Other Ind:	N
Constype Recons Ind:	N
Constype Residential Ind:	N
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	N
Receiving Water Name:	Not reported
Certifier:	Andrew Peltz
Certifier Title:	Authorized Signatory
Certification Date:	10-AUG-15
Primary Sic:	Not reported

MAC 695434 (Continued) **S118119783**

Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	CAS000002
Status:	Terminated
Agency Number:	0
Region:	5S
Regulatory Measure ID:	459715
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	5S07C373711
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	08/14/2015
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	08/29/2016
Discharge Name:	G&I VII Brentwood Operating LP
Discharge Address:	220 East 42nd Street
Discharge City:	New York
Discharge State:	New York
Discharge Zip:	10017
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported

MAC 695434 (Continued) **S118119783**

Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

CONTRA COSTA CO. SITE LIST:

Name:	MAC 12000153
Address:	2455 SAND CREEK RD 116
City:	BRENTWOOD
Facility ID:	FA0038198
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: LESS THAN 5 TONS/YEAR
Region:	CONTRA COSTA
Cupa Number:	775321

CIWQS:

Name:	THE STREETS OF BRENTWOOD SPROUTS FARMERS MARKET
Address:	2455 SAND CREEK ROAD
City,State,Zip:	BRENTWOOD, CA 94513
Agency:	G&I VII Brentwood Operating LP
Agency Address:	220 East 42nd Street 27th Floor, New York, NY 10017
Place/Project Type:	Construction
SIC/NAICS:	Not reported
Region:	5S
Program:	CONSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water construction
Order Number:	2009-0009-DWQ
WDID:	5S07C373711
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	08/14/2015
Termination Date:	08/29/2016
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported

MAC 695434 (Continued) **S118119783**

TTWQ: Not reported
Enforcement Actions within 5 years: 0
Violations within 5 years: 0
Latitude: 37.944013
Longitude: -121.734728

HWTS:
Name: MAC 695434
Address: 2455 SAND CREEK RD STE 116
Address 2: Not reported
City,State,Zip: BRENTWOOD, CA 945137176
EPA ID: CAR000264093
Inactive Date: 06/30/2017
Create Date: 06/24/2016
Last Act Date: 10/17/2018
Mailing Name: KEVIN OKERSTROM
Mailing Address: 155 PINELAWN RD. STE. 150N
Mailing Address 2: Not reported
Mailing City,State,Zip: MELVILLE, NY 117470000
Owner Name: ESTEE LAUDER INC
Owner Address: 767 FIFTH AVE
Owner Address 2: Not reported
Owner City,State,Zip: NEW YORK, NY 10153
Contact Name: KEVIN OKERSTROM
Contact Address: 155 PINELAWN RD. STE. 150N
Contact Address 2: Not reported
City,State,Zip: MELVILLE, NY 117470000

NAICS:
EPA ID: CAR000264093
Create Date: 2016-06-24 10:07:29
NAICS Code: 44612
NAICS Description: Cosmetics, Beauty Supplies, and Perfume Stores
Issued EPA ID Date: 2016-06-24 10:07:29
Inactive Date: 2017-06-30 00:00:00
Facility Name: MAC 695434
Facility Address: 2455 SAND CREEK RD STE 116
Facility Address 2: Not reported
Facility City: BRENTWOOD
Facility County: 07
Facility State: CA
Facility Zip: 945137176

C32 **MAC 12000153** **CERS HAZ WASTE** **S121770331**
East **2455 SAND CREEK RD STE 116** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.168 mi.
888 ft. **Site 11 of 18 in cluster C**

Relative: **Lower**
Actual: **127 ft.**

CERS HAZ WASTE:
Name: MAC 12000153
Address: 2455 SAND CREEK RD STE 116
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 378744
CERS ID: 10675765
CERS Description: Hazardous Waste Generator

MAC 12000153 (Continued) **S121770331**

Violations:

Site ID:	378744
Site Name:	MAC 12000153
Violation Date:	08-23-2016
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Administration/Documentation - General
Violation Notes:	Returned to compliance on 09/22/2016.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-23-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	09-26-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-29-2019
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Enforcement Action:

Site ID:	378744
Site Name:	MAC 12000153
Site Address:	2455 SAND CREEK RD STE 116
Site City:	BRENTWOOD
Site Zip:	94513
Enf Action Date:	08-23-2016
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	HW
Enf Action Source:	CERS

MAC 12000153 (Continued) **S121770331**

Affiliation:

Affiliation Type Desc:	Document Preparer
Entity Name:	Jessica Otto, g2 revolution
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Environmental Contact
Entity Name:	Kevin Okerstrom
Entity Title:	Not reported
Affiliation Address:	155 Pinelawn Rd. Ste. 150N, EAS
Affiliation City:	Melville
Affiliation State:	NY
Affiliation Country:	Not reported
Affiliation Zip:	11747
Affiliation Phone:	Not reported

Affiliation Type Desc:	Parent Corporation
Entity Name:	Estee Lauder, Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Jessica Otto
Entity Title:	Environmental Specialist, g2 revolution
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	Estee Lauder, Inc.
Entity Title:	Not reported
Affiliation Address:	767 Fifth Ave.
Affiliation City:	New York
Affiliation State:	NY
Affiliation Country:	United States
Affiliation Zip:	10153
Affiliation Phone:	(212) 572-4200

Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA

MAC 12000153 (Continued) **S121770331**

Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	155 Pinelawn Rd. Ste. 150N, EAS
Affiliation City:	Melville
Affiliation State:	NY
Affiliation Country:	Not reported
Affiliation Zip:	11747
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	MAC 12000153
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(925) 756-1307

C33 **MAC 695434** **RCRA NonGen / NLR** **1019327200**
East **2455 SANDCREEK RD SPC 116** **CAR000264093**
1/8-1/4 **BRENTWOOD, CA 94513**
0.168 mi.
888 ft. **Site 12 of 18 in cluster C**

Relative:
Lower

Actual:
127 ft.

RCRA NonGen / NLR:

Date form received by agency:	2017-05-31 00:00:00.0
Facility name:	MAC 695434
Facility address:	2455 SANDCREEK RD SPC 116 BRENTWOOD, CA 94513
EPA ID:	CAR000264093
Mailing address:	PYOTT RD STE 100 LAKE IN THE HILLS, IL 60156
Contact:	JESSICA A OTTO
Contact address:	PYOTT RD STE 100 LAKE IN THE HILLS, IL 60156
Contact country:	US
Contact telephone:	815-862-3501
Contact email:	JESSICA.OTTO@G2REV.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	ESTEE LAUDER INC
Owner/operator address:	FIFTH AVE NEW YORK, NY 10153
Owner/operator country:	US
Owner/operator telephone:	212-572-4200
Owner/operator email:	Not reported
Owner/operator fax:	Not reported

MAC 695434 (Continued) **1019327200**

Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 2016-07-01 00:00:00.
Owner/Op end date: Not reported

Owner/operator name: ESTEE LAUDER INC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 2016-07-01 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 2016-06-17 00:00:00.0
Site name: MAC 695434
Classification: Small Quantity Generator

Hazardous Waste Summary:

. Waste code: 352
. Waste name: Other organic solids

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

C34 **MAC 12000153** **RCRA NonGen / NLR** **1024858171**
East **2455 SANDCREEK** **CAL000423933**
1/8-1/4 **BRENTWOOD, CA 94513**
0.168 mi.
888 ft. **Site 13 of 18 in cluster C**

Relative:
Lower

Actual:
127 ft.

RCRA NonGen / NLR:

Date form received by agency:	2017-01-05 00:00:00.0
Facility name:	MAC 12000153
Facility address:	2455 SANDCREEK BRENTWOOD, CA 94513
EPA ID:	CAL000423933
Mailing address:	155 PINELAWN RD. STE. 150N MELVILLE, NY 11747-0000
Contact:	JENNIFER VERRINE
Contact address:	155 PINELAWN RD. STE. 150N MELVILLE, NY 11747-0000
Contact country:	Not reported
Contact telephone:	631-752-5687
Contact email:	JVERRINE@ESTEE.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	ESTEE LAUDER INC
Owner/operator address:	767 FIFTH AVE NEW YORK, NY 10153
Owner/operator country:	Not reported
Owner/operator telephone:	212-572-4200
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	JENNIFER VERRINE
Owner/operator address:	155 PINELAWN RD. STE. 150N MELVILLE, NY 11747
Owner/operator country:	Not reported
Owner/operator telephone:	631-752-5687
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No

MAC 12000153 (Continued) **1024858171**

On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

C35 **TJ MAXX 0858** **CERS HAZ WASTE** **S117047865**
East **2450 SAND CREEK RD** **HAZNET** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513** **CONTRA COSTA CO. SITE LIST**
0.168 mi. **HWTS**
888 ft. **Site 14 of 18 in cluster C**

Relative: **Lower**
Actual: **127 ft.**

CERS HAZ WASTE:

Name:	TJ MAXX 0858
Address:	2450 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	162464
CERS ID:	10488049
CERS Description:	Hazardous Waste Generator

Violations:

Site ID:	162464
Site Name:	TJ Maxx 0858
Violation Date:	12-27-2013
Citation:	HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description:	Haz Waste Generator Program - Administration/Documentation - General
Violation Notes:	Returned to compliance on 03/19/2014.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	03-19-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-22-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	09-05-2019

TJ MAXX 0858 (Continued) **S117047865**

Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-27-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 162464
Site Name: TJ Maxx 0858
Site Address: 2450 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 12-27-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Coordinates:
Site ID: 162464
Facility Name: TJ Maxx 0858
Env Int Type Code: HWG
Program ID: 10488049
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.943470
Longitude: -121.736770

Affiliation:
Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 770 Cochituate Road
Affiliation City: Framingham
Affiliation State: MA
Affiliation Country: Not reported
Affiliation Zip: 01701
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Paul Kangas
Entity Title: SVP, Chief Compliance Officer
Affiliation Address: Not reported
Affiliation City: Not reported

TJ MAXX 0858 (Continued) **S117047865**

Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	TJ Maxx
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(774) 308-3651
Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200
Affiliation Type Desc:	Legal Owner
Entity Name:	TJX Companies, Inc
Entity Title:	Not reported
Affiliation Address:	770 Cochituate Road
Affiliation City:	Framingham
Affiliation State:	MA
Affiliation Country:	United States
Affiliation Zip:	01701
Affiliation Phone:	(774) 308-3651
Affiliation Type Desc:	Document Preparer
Entity Name:	Susan Allen
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Paul Kangas
Entity Title:	Not reported
Affiliation Address:	770 Cochituate Road 300.1AN
Affiliation City:	Framingham
Affiliation State:	MA
Affiliation Country:	Not reported
Affiliation Zip:	01701
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	The TJX Companies, Inc.

TJ MAXX 0858 (Continued) **S117047865**

Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

HAZNET:

Name:	TJ MAXX 0858
Address:	2450 SAND CREEK RD
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 94513
Contact:	PAUL KANGAS
Telephone:	7743083651
Mailing Name:	Not reported
Mailing Address:	770 COCHITUATE RD
Year:	2017
Gepaid:	CAL000383025
TSD EPA ID:	CAD980884183
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0305
Year:	2016
Gepaid:	CAL000383025
TSD EPA ID:	CAD980884183
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0395
Year:	2016
Gepaid:	CAL000383025
TSD EPA ID:	CAD980884183
CA Waste Code:	-
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0625
Year:	2015
Gepaid:	CAL000383025
TSD EPA ID:	NVD980895338
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.047
Year:	2015
Gepaid:	CAL000383025
TSD EPA ID:	CAD980884183
CA Waste Code:	181 - Other inorganic solid waste
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

TJ MAXX 0858 (Continued) **S117047865**

Tons:	0.07
Year:	2015
Gepaid:	CAL000383025
TSD EPA ID:	CAD980884183
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0685
Year:	2015
Gepaid:	CAL000383025
TSD EPA ID:	NVD980895338
CA Waste Code:	122 - Alkaline solution without metals pH >= 12.5
Disposal Method:	H121 - Neutralization Only
Tons:	0.003
Year:	2014
Gepaid:	CAL000383025
TSD EPA ID:	INR000110197
CA Waste Code:	122 - Alkaline solution without metals pH >= 12.5
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0025
Year:	2014
Gepaid:	CAL000383025
TSD EPA ID:	INR000110197
CA Waste Code:	-
Disposal Method:	-
Tons:	0.028
Year:	2014
Gepaid:	CAL000383025
TSD EPA ID:	INR000110197
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0055

Click this hyperlink while viewing on your computer to access
2 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:

Year:	2017
Gen EPA ID:	CAL000383025
Shipment Date:	20170504
Creation Date:	5/16/2018 18:30:21
Receipt Date:	20170517
Manifest ID:	010169099FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183

TJ MAXX 0858 (Continued) **S117047865**

Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D035
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0275
Waste Quantity:	55
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170504
Creation Date:	5/16/2018 18:30:21
Receipt Date:	20170517
Manifest ID:	010169099FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2014
Gen EPA ID:	CAL000383025
Shipment Date:	20141208
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	006361811FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported

TJ MAXX 0858 (Continued) **S117047865**

CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0205
Waste Quantity:	41
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141208
Creation Date:	6/25/2015 22:16:11
Receipt Date:	20141216
Manifest ID:	006361811FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	- Not reported
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141208
Creation Date:	6/25/2015 22:16:11
Receipt Date:	20141216
Manifest ID:	006361811FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Disposal Method:	H121 - Neutralization Only
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	Not reported

TJ MAXX 0858 (Continued) **S117047865**

Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141208
Creation Date:	6/25/2015 22:16:11
Receipt Date:	20141216
Manifest ID:	006361811FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D035
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0075
Waste Quantity:	15
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141208
Creation Date:	6/25/2015 22:16:11
Receipt Date:	20141216
Manifest ID:	006361811FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141208
Creation Date:	Not reported

TJ MAXX 0858 (Continued) **S117047865**

Receipt Date:	Not reported
Manifest ID:	006361811FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.002
Waste Quantity:	4
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20140611
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	006362368FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	- Not reported
Quantity Tons:	0.0085
Waste Quantity:	17
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20140611
Creation Date:	11/12/2014 22:15:05
Receipt Date:	20140702
Manifest ID:	006362368FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC

TJ MAXX 0858 (Continued) **S117047865**

TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	- Not reported
RCRA Code:	Not reported
Disposal Method:	- Not reported
Quantity Tons:	0.028
Waste Quantity:	56
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20140611
Creation Date:	11/12/2014 22:15:05
Receipt Date:	20140702
Manifest ID:	006362368FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20140611
Creation Date:	11/12/2014 22:15:05
Receipt Date:	20140702
Manifest ID:	006362368FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D035
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0035
Waste Quantity:	7

TJ MAXX 0858 (Continued) **S117047865**

Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2015
Gen EPA ID:	CAL000383025
Shipment Date:	20151123
Creation Date:	1/21/2016 22:16:05
Receipt Date:	20151125
Manifest ID:	008675435FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D035
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.055
Waste Quantity:	110
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151123
Creation Date:	1/21/2016 22:16:05
Receipt Date:	20151125
Manifest ID:	008675435FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.07
Waste Quantity:	140
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported

TJ MAXX 0858 (Continued) **S117047865**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151123
Creation Date:	1/21/2016 22:16:05
Receipt Date:	20151125
Manifest ID:	008675435FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0135
Waste Quantity:	27
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150602
Creation Date:	1/20/2016 22:15:20
Receipt Date:	20150612
Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0075
Waste Quantity:	15
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150602
Creation Date:	1/20/2016 22:15:20
Receipt Date:	20150612

TJ MAXX 0858 (Continued) **S117047865**

Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Disposal Method:	H121 - Neutralization Only
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150602
Creation Date:	1/20/2016 22:15:20
Receipt Date:	20150612
Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D035
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.013
Waste Quantity:	26
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150602
Creation Date:	1/20/2016 22:15:20
Receipt Date:	20150612
Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported

TJ MAXX 0858 (Continued) **S117047865**

TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0265
Waste Quantity:	53
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150602
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.055
Waste Quantity:	110
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2013
Gen EPA ID:	CAL000383025
Shipment Date:	20131227
Creation Date:	5/17/2014 22:15:09
Receipt Date:	20140113
Manifest ID:	005507937FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001

TJ MAXX 0858 (Continued) **S117047865**

Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.002
Waste Quantity:	4
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131227
Creation Date:	5/17/2014 22:15:09
Receipt Date:	20140113
Manifest ID:	005507937FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	- Not reported
RCRA Code:	Not reported
Disposal Method:	- Not reported
Quantity Tons:	0.029
Waste Quantity:	58
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131227
Creation Date:	5/17/2014 22:15:09
Receipt Date:	20140113
Manifest ID:	005507937FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D035
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0135
Waste Quantity:	27
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported

TJ MAXX 0858 (Continued) **S117047865**

Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2016
Gen EPA ID:	CAL000383025
Shipment Date:	20151123
Creation Date:	1/21/2016 22:16:05
Receipt Date:	20151125
Manifest ID:	008675435FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D035
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.055
Waste Quantity:	110
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151123
Creation Date:	1/21/2016 22:16:05
Receipt Date:	20151125
Manifest ID:	008675435FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.07
Waste Quantity:	140
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

TJ MAXX 0858 (Continued) **S117047865**

Shipment Date:	20151123
Creation Date:	1/21/2016 22:16:05
Receipt Date:	20151125
Manifest ID:	008675435FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0135
Waste Quantity:	27
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20150602
Creation Date:	1/20/2016 22:15:20
Receipt Date:	20150612
Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0075
Waste Quantity:	15
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20150602
Creation Date:	1/20/2016 22:15:20
Receipt Date:	20150612
Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133

TJ MAXX 0858 (Continued) **S117047865**

Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Disposal Method:	H121 - Neutralization Only
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150602
Creation Date:	1/20/2016 22:15:20
Receipt Date:	20150612
Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D035
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.013
Waste Quantity:	26
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150602
Creation Date:	1/20/2016 22:15:20
Receipt Date:	20150612
Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No

TJ MAXX 0858 (Continued) **S117047865**

	Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0265
Waste Quantity:	53
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150602
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.055
Waste Quantity:	110
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CONTRA COSTA CO. SITE LIST:

Name:	TJ MAXX 0858
Address:	2450 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0035255
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: LESS THAN 5 TONS/YEAR
Region:	CONTRA COSTA
Cupa Number:	774825

HWTS:

Name:	TJ MAXX 0858
Address:	2450 SAND CREEK RD
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 94513
EPA ID:	CAL000383025
Inactive Date:	Not reported
Create Date:	03/01/2013
Last Act Date:	09/05/2019
Mailing Name:	Not reported

TJ MAXX 0858 (Continued) **S117047865**

Mailing Address:	770 COCHITUATE RD
Mailing Address 2:	300.1AN
Mailing City,State,Zip:	FRAMINGHAM, MA 01701
Owner Name:	TJ MAXX OF CA LLC
Owner Address:	770 COCHITUATE RD
Owner Address 2:	Not reported
Owner City,State,Zip:	FRAMINGHAM, MA 01701
Contact Name:	PAUL KANGAS
Contact Address:	770 COCHITUATE RD
Contact Address 2:	300.1AN
City,State,Zip:	FRAMINGHAM, MA 01701

NAICS:

EPA ID:	CAL000383025
Create Date:	2013-03-01 11:47:36
NAICS Code:	44814
NAICS Description:	Family Clothing Stores
Issued EPA ID Date:	2013-03-01 11:47:36
Inactive Date:	Not reported
Facility Name:	TJ MAXX 0858
Facility Address:	2450 SAND CREEK RD
Facility Address 2:	Not reported
Facility City:	BRENTWOOD
Facility County:	07
Facility State:	CA
Facility Zip:	94513

C36 **TJ MAXX 0858** **RCRA NonGen / NLR** **1024837513**
East **2450 SAND CREEK RD** **CAL000383025**
1/8-1/4 **BRENTWOOD, CA 94513**
0.168 mi.
888 ft. **Site 15 of 18 in cluster C**

Relative:
Lower

Actual:
127 ft.

RCRA NonGen / NLR:

Date form received by agency:	2013-03-01 00:00:00.0
Facility name:	TJ MAXX 0858
Facility address:	2450 SAND CREEK RD BRENTWOOD, CA 94513
EPA ID:	CAL000383025
Mailing address:	770 COCHITUATE RD 300.1AN FRAMINGHAM, MA 01701
Contact:	PAUL KANGAS
Contact address:	770 COCHITUATE RD 300.1AN FRAMINGHAM, MA 01701
Contact country:	Not reported
Contact telephone:	774-308-3651
Contact email:	PAUL_KANGAS@TJX.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	TJ MAXX OF CA LLC
Owner/operator address:	770 COCHITUATE RD FRAMINGHAM, MA 01701
Owner/operator country:	Not reported

TJ MAXX 0858 (Continued) **1024837513**

Owner/operator telephone:	774-308-3651
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	PAUL KANGAS
Owner/operator address:	770 COCHITUATE RD 300.1AN FRAMINGHAM, MA 01701
Owner/operator country:	Not reported
Owner/operator telephone:	774-308-3651
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

D37 **SHELL PURCHASE** **HIST UST** **U001598270**
NE **SAND CREEK ROAD** **EMI** **N/A**
1/8-1/4 **BRENTWOOD, CA 94573** **CERS**
0.173 mi.
912 ft. **Site 1 of 2 in cluster D**

Relative: **Lower**
Actual: **131 ft.**

HIST UST:

Name:	SHELL PURCHASE
Address:	SAND CREEK ROAD
City,State,Zip:	BRENTWOOD, CA 94573
File Number:	00022DAB
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00022DAB.pdf
Region:	STATE
Facility ID:	00000024874
Facility Type:	Other
Other Type:	UTILITY
Contact Name:	Not reported

SHELL PURCHASE (Continued) **U001598270**

Telephone:	4157571607
Owner Name:	PACIFIC GAS & ELECTRIC CO.
Owner Address:	77 BEALE ST.
Owner City,St,Zip:	SAN FRANCISCO, CA 94106
Total Tanks:	0001

Tank Num:	001
Container Num:	A-1
Year Installed:	1980
Tank Capacity:	00000050
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Visual

Click here for Geo Tracker PDF:

EMI:

Name:	PRODUCTION SPECIALTIES COMPANY
Address:	SAND CREEK ROAD
City,State,Zip:	BRENTWOOD, CA 94573
Year:	2001
County Code:	7
Air Basin:	SF
Facility ID:	12941
Air District Name:	BA
SIC Code:	1381
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	PRODUCTION SPECIALTIES COMPANY
Address:	SAND CREEK ROAD
City,State,Zip:	BRENTWOOD, CA 94573
Year:	2002
County Code:	7
Air Basin:	SF
Facility ID:	12941
Air District Name:	BA
SIC Code:	1381
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

SHELL PURCHASE (Continued) **U001598270**

Name:	PRODUCTION SPECIALTIES COMPANY
Address:	SAND CREEK ROAD
City,State,Zip:	BRENTWOOD, CA 94573
Year:	2003
County Code:	7
Air Basin:	SF
Facility ID:	12941
Air District Name:	BA
SIC Code:	1381
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	PRODUCTION SPECIALTIES COMPANY
Address:	SAND CREEK ROAD
City,State,Zip:	BRENTWOOD, CA 94573
Year:	2004
County Code:	7
Air Basin:	SF
Facility ID:	12941
Air District Name:	BA
SIC Code:	1381
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.539
Reactive Organic Gases Tons/Yr:	0.4566408
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	PRODUCTION SPECIALTIES COMPANY
Address:	SAND CREEK ROAD
City,State,Zip:	BRENTWOOD, CA 94573
Year:	2005
County Code:	7
Air Basin:	SF
Facility ID:	12941
Air District Name:	BA
SIC Code:	1381
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.539
Reactive Organic Gases Tons/Yr:	.4566408
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0

SHELL PURCHASE (Continued) **U001598270**

Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

Name: PRODUCTION SPECIALTIES COMPANY
Address: SAND CREEK ROAD
City,State,Zip: BRENTWOOD, CA 94573
Year: 2006
County Code: 7
Air Basin: SF
Facility ID: 12941
Air District Name: BA
SIC Code: 1381
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .539
Reactive Organic Gases Tons/Yr: .4566408
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

CERS:
Name: PRODUCTION SPECIALTIES COMPANY
Address: SAND CREEK ROAD
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 488243
CERS ID: 110021340716
CERS Description: US EPA Air Emission Inventory System (EIS)

C38 **COSMOPROF BEAUTY** **RCRA NonGen / NLR** **1024861257**
East **2440 SAND CREEK RD STE E 2** **CAL000429726**
1/8-1/4 **BRENTWOOD, CA 94513**
0.177 mi.
936 ft. **Site 16 of 18 in cluster C**

Relative:
Lower

Actual:
127 ft.

RCRA NonGen / NLR:
Date form received by agency: 2017-08-01 00:00:00.0
Facility name: COSMOPROF BEAUTY
Facility address: 2440 SAND CREEK RD STE E 2
BRENTWOOD, CA 94513
EPA ID: CAL000429726
Contact: RANDY GOSS
Contact address: 3001 COLORADO BLVD
DENTON, TX 76210
Contact country: Not reported
Contact telephone: 940-898-7500
Contact email: RGOSS@SALLYBEAUTY.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: RANDY GOSS
Owner/operator address: 3001 COLORADO BLVD
DENTON, TX 76210

COSMOPROF BEAUTY (Continued) **1024861257**

Owner/operator country: Not reported
Owner/operator telephone: 940-898-7500
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: SALLY BEAUTY HOLDING LLC
Owner/operator address: 3001 COLORADO BLVD
DENTON, TX 76210
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

C39 **COSMOPROF BEAUTY** **CONTRA COSTA CO. SITE LIST** **S121312173**
East **2440 SAND CREEK RD E-2** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.177 mi.
936 ft. **Site 17 of 18 in cluster C**

Relative: **Lower**
Actual: **127 ft.**

CONTRA COSTA CO. SITE LIST:
Name: COSMOPROF BEAUTY
Address: 2440 SAND CREEK RD E-2
City: BRENTWOOD
Facility ID: FA0039778
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG: LESS THAN 5 TONS/YEAR
Region: CONTRA COSTA
Cupa Number: 775486

C40 **COSMOPROF BEAUTY** **CERS HAZ WASTE** **S121782223**
East **2440 SAND CREEK RD STE E-2** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.177 mi.
936 ft. **Site 18 of 18 in cluster C**

Relative:
Lower

Actual:
127 ft.

CERS HAZ WASTE:
Name: COSMOPROF BEAUTY
Address: 2440 SAND CREEK RD STE E-2
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 425662
CERS ID: 10743040
CERS Description: Hazardous Waste Generator

Violations:
Site ID: 425662
Site Name: COSMOPROF BEAUTY
Violation Date: 06-11-2018
Citation: HSC 6.5 25160.2 - California Health and Safety Code, Chapter 6.5, Section(s) 25160.2
Violation Description: Failure of a generator of hazardous waste that meets the conditions to be transported on a consolidated manifest to comply with one or more of the required consolidated manifesting procedures and retain copies of receipts for three years.
Violation Notes: Returned to compliance on 10/03/2018. OBSERVATION: Uniform Hazardous Waste Manifests with designated facility signature for manifest # 017367401 were not available at the time of inspection. CORRECTIVE ACTION: Locate a copy and submit copies to the CUPA via fax or email by 7/11/18
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 03-27-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-11-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-11-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW

COSMOPROF BEAUTY (Continued) **S121782223**

Eval Source: CERS

Enforcement Action:
Site ID: 425662
Site Name: COSMOPROF BEAUTY
Site Address: 2440 SAND CREEK RD STE E-2
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 03-27-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: UNSPEC
Enf Action Source: CERS

Site ID: 425662
Site Name: COSMOPROF BEAUTY
Site Address: 2440 SAND CREEK RD STE E-2
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 06-11-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Affiliation:
Affiliation Type Desc: Document Preparer
Entity Name: Larry Burton
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: Contra Costa County Health Services Department
Entity Title: Not reported
Affiliation Address: 4585 Pacheco BlvdSuite 100
Affiliation City: Martinez
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94553
Affiliation Phone: (925) 335-3200

Affiliation Type Desc: Environmental Contact
Entity Name: Randy Goss
Entity Title: Not reported
Affiliation Address: 3001 COLORADO BLVD
Affiliation City: DENTON
Affiliation State: TX

COSMOPROF BEAUTY (Continued) **S121782223**

Affiliation Country:	Not reported
Affiliation Zip:	76210
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Larry Burton
Entity Title:	Director, Temarry Recycling, Inc
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	Sally Beauty Holding LLC
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(940) 898-7500
Affiliation Type Desc:	Parent Corporation
Entity Name:	Sally Beauty Holding LLC
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Property Owner
Entity Name:	Sally Beauty Holding LLC
Entity Title:	Not reported
Affiliation Address:	2440 Sand Creek Rd Ste E-2
Affiliation City:	Brentwood
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94513
Affiliation Phone:	(925) 516-6987
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2440 Sand Creek Rd Ste E-2
Affiliation City:	Brentwood
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94513
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Sally Beauty Holding LLC
Entity Title:	Not reported

COSMOPROF BEAUTY (Continued) **S121782223**

Affiliation Address:	3001 COLORADO BLVD
Affiliation City:	DENTON
Affiliation State:	TX
Affiliation Country:	United States
Affiliation Zip:	76210
Affiliation Phone:	(940) 898-7500

41
East
1/8-1/4
0.204 mi.
1078 ft.

BJ'S RESTAURANT & BREWHOUSE
2365 SAND CREEK RD
BRENTWOOD, CA 94513

NPDES **S122246726**
CONTRA COSTA CO. SITE LIST **N/A**

Relative:
Lower

Actual:
127 ft.

NPDES:

Name:	BJS RESTAURANT AND BREWHOUSE
Address:	2365 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	5S07W000308
Regulatory Measure Type:	Construction
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Expired
Status Date:	10/10/2011
Operator Name:	BJs Restaurants Inc
Operator Address:	7755 Center Ave
Operator City:	Huntington Beach
Operator State:	California
Operator Zip:	92647

CONTRA COSTA CO. SITE LIST:

Name:	BJ'S RESTAURANT & BREWHOUSE
Address:	2365 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0042894
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP GENERAL
Region:	CONTRA COSTA
Cupa Number:	776374

E42 **RALEY'S #336** **RCRA NonGen / NLR** **1006805418**
East **2400 SANDCREEK RD** **FINDS** **CAR000126821**
1/8-1/4 **BRENTWOOD, CA 94513**
0.214 mi.
1128 ft. **Site 1 of 3 in cluster E**

Relative:
Lower

Actual:
124 ft.

RCRA NonGen / NLR:

Date form received by agency:	2003-03-04 00:00:00.0
Facility name:	RALEY'S #336
Facility address:	2400 SAND CREEK RD BRENTWOOD, CA 94513-7058
EPA ID:	CAR000126821
Mailing address:	PO BOX 15618 SACRAMENTO, CA 95852-1618
Contact:	GLENN BAKER
Contact address:	PO BOX 15618 SACRAMENTO, CA 95852-1618
Contact country:	Not reported
Contact telephone:	916-373-6318
Contact email:	GBAKER@RALEYS.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	GLENN BAKER
Owner/operator address:	PO BOX 15618 SACRAMENTO, CA 95852
Owner/operator country:	Not reported
Owner/operator telephone:	916-373-6318
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	RALEY'S FARMS INC
Owner/operator address:	500 W CAPITOL AVE WEST SACRAMENTO, CA 95605
Owner/operator country:	Not reported
Owner/operator telephone:	916-373-6318
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	RALEYS SUPERMARKETS INC
Owner/operator address:	500 W CAPITOL AVE W SACRAMENTO, CA 95605
Owner/operator country:	Not reported
Owner/operator telephone:	916-373-6352
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported

RALEY'S #336 (Continued) **1006805418**

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: Yes
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: Yes
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 2002-08-26 00:00:00.0
Site name: RALEYS NO 336
Classification: Small Quantity Generator

Hazardous Waste Summary:

. Waste code: D000
. Waste name: Not Defined

. Waste code: D011
. Waste name: SILVER

Violation Status: No violations found

FINDS:
Registry ID: 110013307395
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110013307395

Environmental Interest/Information System:
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

E43 **RALEYS #336** **CONTRA COSTA CO. SITE LIST** **S106800079**
East **2400 SAND CREEK RD** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.214 mi.
1128 ft. **Site 2 of 3 in cluster E**

Relative: **Lower**
Actual: **124 ft.**

CONTRA COSTA CO. SITE LIST:

Name:	RALEYS #336
Address:	2400 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0030141
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: LESS THAN 5 TONS/YEAR
Region:	CONTRA COSTA
Cupa Number:	773472

D44 **EQUILON PIPLINE CO LLC** **CONTRA COSTA CO. SITE LIST** **S103464217**
NE **3052 SAND CREEK RD** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.214 mi.
1129 ft. **Site 2 of 2 in cluster D**

Relative: **Lower**
Actual: **132 ft.**

CONTRA COSTA CO. SITE LIST:

Name:	EQUILON PIPLINE CO LLC
Address:	3052 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0030744
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP GENERAL
Region:	CONTRA COSTA
Cupa Number:	704212

Name:	EQUILON PIPLINE CO LLC
Address:	3052 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0030744
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	UNDERGROUND STORAGE TANK SITE
Region:	CONTRA COSTA
Cupa Number:	704212

F45 **LOMA VISTA ELEMENTARY CLASSROOM ADDITION** **ENVIROSTOR SCH** **S118757485**
ESE **2110 SAN JOSE AVENUE** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.227 mi.
1201 ft. **Site 1 of 2 in cluster F**

Relative: **Lower**
Actual: **124 ft.**

ENVIROSTOR:

Name:	LOMA VISTA ELEMENTARY CLASSROOM ADDITION
Address:	2110 SAN JOSE AVENUE
City,State,Zip:	BRENTWOOD, CA 94513-5930
Facility ID:	7820007
Status:	No Action Required
Status Date:	05/31/2001
Site Code:	204078

LOMA VISTA ELEMENTARY CLASSROOM ADDITION (Continued) **S118757485**

Site Type: School Investigation
Site Type Detailed: School
Acres: 54
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Kamili Siglowide
Supervisor: Charles Ridenour
Division Branch: Northern California Schools & Santa Susana
Assembly: 11
Senate: 07
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 37.94052
Longitude: -121.7355
APN: 019110043
Past Use: SCHOOL - ELEMENTARY
Potential COC: NONE SPECIFIED No Contaminants found
Confirmed COC: NONE SPECIFIED
Potential Description: NMA
Alias Name: Not reported
Alias Type: Not reported

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Name: LOMA VISTA ELEMENTARY CLASSROOM ADDITION
Address: 2110 SAN JOSE AVENUE
City,State,Zip: BRENTWOOD, CA 94513-5930
Facility ID: 7820007
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 54
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Kamili Siglowide

LOMA VISTA ELEMENTARY CLASSROOM ADDITION (Continued) **S118757485**

Supervisor:	Charles Ridenour
Division Branch:	Northern California Schools & Santa Susana
Site Code:	204078
Assembly:	11
Senate:	07
Special Program Status:	Not reported
Status:	No Action Required
Status Date:	05/31/2001
Restricted Use:	NO
Funding:	School District
Latitude:	37.94052
Longitude:	-121.7355
APN:	019110043
Past Use:	SCHOOL - ELEMENTARY
Potential COC:	NONE SPECIFIED, No Contaminants found
Confirmed COC:	NONE SPECIFIED
Potential Description:	NMA
Alias Name:	Not reported
Alias Type:	Not reported

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

F46 **T-MOBILE WEST CORP/BA01704A** **CONTRA COSTA CO. SITE LIST** **S109448831**
ESE **2110 SAN JOSE AVE** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.227 mi.
1201 ft. **Site 2 of 2 in cluster F**

Relative: **Lower**
Actual: **124 ft.**

CONTRA COSTA CO. SITE LIST:

Name:	T-MOBILE WEST CORP/BA01704A
Address:	2110 SAN JOSE AVE
City:	BRENTWOOD
Facility ID:	FA0030789
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP: LESS THAN 1000 LBS
Region:	CONTRA COSTA
Cupa Number:	774010

E47 **RED ROBIN #590 (BRENTWOOD)** **CONTRA COSTA CO. SITE LIST** **S123185260**
East **2385 SAND CREEK RD** **CERS** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.235 mi.
1243 ft. **Site 3 of 3 in cluster E**

Relative:
Lower

Actual:
124 ft.

CONTRA COSTA CO. SITE LIST:

Name:	RED ROBIN #590 (BRENTWOOD)
Address:	2385 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0042183
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP: LESS THAN 1000 LBS
Region:	CONTRA COSTA
Cupa Number:	776280

CERS:

Name:	RED ROBIN #590 (BRENTWOOD)
Address:	2385 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	445378
CERS ID:	10776655
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	445378
Site Name:	Red Robin #590 (Brentwood)
Violation Date:	06-20-2019
Citation:	HSC 6.95 25505(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(c)
Violation Description:	Failure to have a business plan readily available to personnel of the business or the unified program facility with responsibilities for emergency response or training.
Violation Notes:	OBSERVATION: The business failed to have the hazardous material business plan readily available to personnel of the business or the unified program facility with responsibilities for emergency response or training. CORRECTIVE ACTION: Provide a readily available business plan to personnel of the business or the unified program facility with responsibilities for emergency response or training. Document that appropriate personnel have the business plan readily available.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	445378
Site Name:	Red Robin #590 (Brentwood)
Violation Date:	06-20-2019
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes:	OBSERVATION: The business failed to complete and electronically submit chemical inventory information for all reportable hazardous materials on site at or above reportable quantities. Used cooking oil is over threshold and needs to be added to the inventory. CORRECTIVE ACTION: Complete and electronically submit the chemical inventory information for used cooking oil. 200 gallon tank observed onsite, manager

RED ROBIN #590 (BRENTWOOD) (Continued) **S123185260**

observed that typically the tank is filled to 75 gallons prior to being picked up.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 445378
Site Name: Red Robin #590 (Brentwood)
Violation Date: 06-20-2019
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes: OBSERVATION: The business failed to provide annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material including familiarity with the emergency response plan or failure to document and maintain training records for a minimum of three years. CORRECTIVE ACTION: Provide documentation of annual training to inspector. Ensure annual training occurs moving forward and records (paper or electronic logs) are stored onsite for a minimum of 3 years.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-20-2019
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Enforcement Action:
Site ID: 445378
Site Name: Red Robin #590 (Brentwood)
Site Address: 2385 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 06-20-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Coordinates:
Site ID: 445378
Facility Name: Red Robin #590 (Brentwood)
Env Int Type Code: HMBP
Program ID: 10776655

RED ROBIN #590 (BRENTWOOD) (Continued) **S123185260**

Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	37.943720
Longitude:	-121.739210

Affiliation:

Affiliation Type Desc:	Environmental Contact
Entity Name:	Licensing Department
Entity Title:	Not reported
Affiliation Address:	6312 S Fiddlers Green Cir #200N, Attn: Licensing
Affiliation City:	Greenwood Village
Affiliation State:	CO
Affiliation Country:	Not reported
Affiliation Zip:	80111
Affiliation Phone:	Not reported

Affiliation Type Desc:	Operator
Entity Name:	RED ROBIN INTERNATIONAL, INC.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(303) 846-6000

Affiliation Type Desc:	Property Owner
Entity Name:	FHB Retail Partners, LLC
Entity Title:	Not reported
Affiliation Address:	1 East Wacker Drive STE 2900
Affiliation City:	Chicago
Affiliation State:	IL
Affiliation Country:	United States
Affiliation Zip:	60601
Affiliation Phone:	(312) 789-4680

Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200

Affiliation Type Desc:	Document Preparer
Entity Name:	Amanda Black
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner

RED ROBIN #590 (BRENTWOOD) (Continued) **S123185260**

Entity Name:	RED ROBIN INTERNATIONAL, INC.
Entity Title:	Not reported
Affiliation Address:	6312 S. Fiddler's Green CIrcle, Suite 200 N.
Affiliation City:	Greenwood Village
Affiliation State:	CO
Affiliation Country:	United States
Affiliation Zip:	80111
Affiliation Phone:	(303) 846-6000
Affiliation Type Desc:	Parent Corporation
Entity Name:	RED ROBIN INTERNATIONAL, INC.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	6312 S. Fiddler's Green Circle, Suite 200 N. ATTN Licensing
Affiliation City:	Greenwood Village
Affiliation State:	CO
Affiliation Country:	Not reported
Affiliation Zip:	80111
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Amanda Black
Entity Title:	Licensing Coordinator
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

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48 **TERMO COMPANY** **LUST** **1002848197**
ESE **SAN JOSE AVE** **HIST CORTESE** **N/A**
1/4-1/2 **BRENTWOOD, CA 94513** **CERS**
0.356 mi.
1882 ft.

Relative:
Lower

Actual:
117 ft.

LUST REG 5:

Name:	TERMO COMPANY
Address:	SAN JOSE AVE
City:	BRENTWOOD
Region:	5
Status:	Case Closed
Case Number:	070007
Case Type:	Soil only
Substance:	UNLEAD GASOLINE
Staff Initials:	PMV
Lead Agency:	Regional
Program:	LUST

TERMO COMPANY (Continued) **1002848197**

MTBE Code: N/A

HIST CORTESE:
edr_fname: TERMO COMPANY
edr_fadd1: SAN JOSE AVE
City,State,Zip: BRENTWOOD, CA 94513
Region: CORTESE
Facility County Code: 7
Reg By: LTNKA
Reg Id: 070007

CERS:
Name: TERMO COMPANY
Address: SAN JOSE AVE
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 250119
CERS ID: T0601300748
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: BRUCE BENIKI - CONTRA COSTA COUNTY
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: r5 UNKNOWN
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Regional Board Caseworker
Entity Name: VERA J. FISCHER - CENTRAL VALLEY RWQCB (REGION 5S)
Entity Title: Not reported
Affiliation Address: 11020 SUN CENTER DRIVE #200
Affiliation City: RANCHO CORDOVA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

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49 **EMPIRE ELEMENTARY SCHOOL** **ENVIROSTOR** **S116165206**
NE **EMPIRE AVENUE/AMBER LANE** **SCH** **N/A**
1/2-1 **BRENTWOOD, CA 94513**
0.798 mi.
4212 ft.

Relative:
Lower

Actual:
114 ft.

ENVIROSTOR:
Name: EMPIRE ELEMENTARY SCHOOL
Address: EMPIRE AVENUE/AMBER LANE
City,State,Zip: BRENTWOOD, CA 94513
Facility ID: 1010005
Status: Certified
Status Date: 06/09/2003
Site Code: 201282
Site Type: School Cleanup
Site Type Detailed: School

EMPIRE ELEMENTARY SCHOOL (Continued) **S116165206**

Acres:	18.96
NPL:	NO
Regulatory Agencies:	HWMP
Lead Agency:	HWMP
Program Manager:	Kamili Siglowide
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana
Assembly:	11
Senate:	07
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	37.95523
Longitude:	-121.7335
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	Arsenic DDE DDT Toxaphene
Confirmed COC:	Arsenic DDE DDT Toxaphene
Potential Description:	SOIL
Alias Name:	Not reported
Alias Type:	Not reported

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

SCH:

Name:	EMPIRE ELEMENTARY SCHOOL
Address:	EMPIRE AVENUE/AMBER LANE
City,State,Zip:	BRENTWOOD, CA 94513
Facility ID:	1010005
Site Type:	School Cleanup
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	18.96
National Priorities List:	NO
Cleanup Oversight Agencies:	HWMP
Lead Agency:	HWMP
Lead Agency Description:	DTSC - Hazardous Waste Management Program
Project Manager:	Kamili Siglowide
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana

EMPIRE ELEMENTARY SCHOOL (Continued) **S116165206**

Site Code:	201282
Assembly:	11
Senate:	07
Special Program Status:	Not reported
Status:	Certified
Status Date:	06/09/2003
Restricted Use:	NO
Funding:	School District
Latitude:	37.95523
Longitude:	-121.7335
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	Arsenic, DDE, DDT, Toxaphene
Confirmed COC:	Arsenic, DDE, DDT, Toxaphene
Potential Description:	SOIL
Alias Name:	Not reported
Alias Type:	Not reported

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

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50 **MILES-FENELL PROPERTY** **ENVIROSTOR** **S116490709**
NNE **2200 SHADY WILLOW LANE,2301 & 2251 EMPIRE AVENUE** **VCP** **N/A**
1/2-1 **BRENTWOOD, CA 94513**
0.845 mi.
4462 ft.

Relative:
Lower

Actual:
114 ft.

ENVIROSTOR:

Name:	MILES-FENELL PROPERTY
Address:	2200 SHADY WILLOW LANE,2301 & 2251 EMPIRE AVENUE
City,State,Zip:	BRENTWOOD, CA 94513
Facility ID:	60001996
Status:	No Further Action
Status Date:	08/12/2014
Site Code:	202004
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	13.92
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Daniel Murphy
Division Branch:	Cleanup Berkeley

MILES-FENELL PROPERTY (Continued) **S116490709**

Assembly:	11
Senate:	07
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	37.95763
Longitude:	-121.7360
APN:	019040050, 019040051, 019040066
Past Use:	AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC:	Arsenic
Confirmed COC:	Arsenic
Potential Description:	SOIL
Alias Name:	Bella Fiore Development
Alias Type:	Alternate Name
Alias Name:	019040050
Alias Type:	APN
Alias Name:	019040051
Alias Type:	APN
Alias Name:	019040066
Alias Type:	APN
Alias Name:	202004
Alias Type:	Project Code (Site Code)
Alias Name:	60001996
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	05/14/2014
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	No Further Action Letter
Completed Date:	08/12/2014
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	06/27/2014
Comments:	Acceptance of the documents as a PEA equivalency with further work needed.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Application
Completed Date:	04/03/2014
Comments:	DTSC was selected for the oversight for this project.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported

MILES-FENELL PROPERTY (Continued) **S116490709**

Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:
Name: MILES-FENELL PROPERTY
Address: 2200 SHADY WILLOW LANE,2301 & 2251 EMPIRE AVENUE
City,State,Zip: BRENTWOOD, CA 94513
Facility ID: 60001996
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 13.92
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Daniel Murphy
Division Branch: Cleanup Berkeley
Site Code: 202004
Assembly: 11
Senate: 07
Special Programs Code: Not reported
Status: No Further Action
Status Date: 08/12/2014
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 37.95763 / -121.7360
APN: 019040050, 019040051, 019040066
Past Use: AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC: 30001
Confirmed COC: 30001
Potential Description: SOIL
Alias Name: Bella Fiore Development
Alias Type: Alternate Name
Alias Name: 019040050
Alias Type: APN
Alias Name: 019040051
Alias Type: APN
Alias Name: 019040066
Alias Type: APN
Alias Name: 202004
Alias Type: Project Code (Site Code)
Alias Name: 60001996
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 05/14/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: No Further Action Letter

MILES-FENELL PROPERTY (Continued) **S116490709**

Completed Date:	08/12/2014
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	06/27/2014
Comments:	Acceptance of the documents as a PEA equivalency with further work needed.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Application
Completed Date:	04/03/2014
Comments:	DTSC was selected for the oversight for this project.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

Count: 2 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BRENTWOOD	S106707856	SHEA HOMES PROPERTY (FORMERLY GERM	SAN JOSE AVE AND SAN JOSE RD		CPS-SLIC
BRENTWOOD	S105982781	THE TERMO COMPANY	SAN JOSE AVE., SW END		CPS-SLIC

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: N/A
Last EDR Contact: 03/04/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: N/A
Last EDR Contact: 03/04/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: N/A
Last EDR Contact: 03/04/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/03/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/04/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 11/04/2019
Date Data Arrived at EDR: 11/13/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 76

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/10/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/22/2019
Date Data Arrived at EDR: 11/22/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 67

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/20/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/22/2019
Date Data Arrived at EDR: 11/22/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 67

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/20/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/19/2019
Date Made Active in Reports: 03/06/2020
Number of Days to Update: 78

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 10/28/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/07/2020
Number of Days to Update: 70

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/28/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 10/28/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/07/2020
Number of Days to Update: 70

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/28/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/11/2019
Date Data Arrived at EDR: 11/12/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 57

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/11/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 66

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Quarterly

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/27/2020
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/15/2019
Date Data Arrived at EDR: 12/17/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 12/16/2019
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/10/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 67

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 72

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/02/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 08/27/2019
Date Data Arrived at EDR: 08/28/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 75

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/21/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 12/06/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/25/2020
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 03/11/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/21/2020
Number of Days to Update: 73

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 03/12/2020
Next Scheduled EDR Contact: 06/29/2020
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/10/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 67

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/02/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 72

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/27/2020
Number of Days to Update: 85

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142
Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/17/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 10/28/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/07/2020
Number of Days to Update: 70
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/28/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27
Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 12/18/2019
Date Data Arrived at EDR: 12/19/2019
Date Made Active in Reports: 02/19/2020
Number of Days to Update: 62
Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 03/06/2020
Number of Days to Update: 81
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/16/2019
Next Scheduled EDR Contact: 03/30/2020
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/19/2020
Number of Days to Update: 71

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 11/15/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 69

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/07/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/27/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 10/28/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/07/2020
Number of Days to Update: 70

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/28/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/16/2019
Date Made Active in Reports: 09/24/2019
Number of Days to Update: 70

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Varies

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 10/21/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/02/2020
Number of Days to Update: 72

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 01/22/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/19/2019
Date Data Arrived at EDR: 12/23/2019
Date Made Active in Reports: 02/21/2020
Number of Days to Update: 60

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/02/2019
Date Made Active in Reports: 10/11/2019
Number of Days to Update: 70

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CERS TANKS: California Environmental Reporting System (CERS) Tanks

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 10/21/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/03/2020
Number of Days to Update: 73

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/22/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Quarterly

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 03/05/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/03/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/05/2019
Date Data Arrived at EDR: 12/06/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 70

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/06/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 05/15/2019
Date Data Arrived at EDR: 06/24/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 58

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/22/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 66

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 11/12/2019
Date Data Arrived at EDR: 11/19/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 70

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/19/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/10/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/09/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63
Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/13/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/19/2019
Date Made Active in Reports: 02/27/2020
Number of Days to Update: 70
Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88
Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/03/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73
Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/07/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198
Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 03/30/2020
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 11/16/2018
Date Made Active in Reports: 11/21/2019
Number of Days to Update: 370

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 10/23/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 84

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/04/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/25/2019
Date Data Arrived at EDR: 05/02/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/21/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/06/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 8
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 03/04/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/09/2019
Date Data Arrived at EDR: 10/11/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 70
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/10/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/25/2019
Date Data Arrived at EDR: 10/25/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 82
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 01/21/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 42
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 03/06/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 02/07/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 78

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/28/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/17/2020
Date Made Active in Reports: 03/06/2020
Number of Days to Update: 49

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 03/04/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/06/2019
Date Data Arrived at EDR: 11/25/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 64

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/25/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 12/03/2019
Date Data Arrived at EDR: 12/03/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 56

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 03/02/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 02/28/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 02/28/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/11/2019
Date Made Active in Reports: 02/27/2020
Number of Days to Update: 78

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 03/05/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 11/22/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 03/02/2020
Number of Days to Update: 89

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 03/03/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/05/2020
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/06/2020
Number of Days to Update: 59
Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74
Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/13/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/19/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 70
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/19/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/18/2019
Date Data Arrived at EDR: 12/20/2019
Date Made Active in Reports: 02/20/2020
Number of Days to Update: 62
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing
list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64
Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

CUPA SAN FRANCISCO CO: CUPA Facility Listing
Cupa facilities

Date of Government Version: 10/31/2019
Date Data Arrived at EDR: 11/01/2019
Date Made Active in Reports: 12/11/2019
Number of Days to Update: 40

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 09/06/2019
Date Data Arrived at EDR: 10/11/2019
Date Made Active in Reports: 12/12/2019
Number of Days to Update: 62

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Annually

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 09/27/2019
Date Data Arrived at EDR: 10/01/2019
Date Made Active in Reports: 11/07/2019
Number of Days to Update: 37

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/03/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 63

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Varies

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/24/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 59

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 03/29/2020
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/22/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 66

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 01/22/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 10/17/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/02/2020
Number of Days to Update: 72

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/08/2019
Date Data Arrived at EDR: 11/12/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 57

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/07/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 05/29/2019
Date Made Active in Reports: 07/22/2019
Number of Days to Update: 54

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/19/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 65

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 02/19/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/19/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 65

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/19/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/06/2020
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/05/2020
Number of Days to Update: 58

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/24/2020
Number of Days to Update: 76
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 11/22/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/03/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 11/11/2019
Date Data Arrived at EDR: 11/12/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 57
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/11/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 12/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 03/03/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/19/2020
Number of Days to Update: 71
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 12/11/2019
Date Data Arrived at EDR: 12/12/2019
Date Made Active in Reports: 02/21/2020
Number of Days to Update: 71
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/12/2020
Next Scheduled EDR Contact: 06/29/2020
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 12/06/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/19/2020
Number of Days to Update: 71
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 11/19/2019
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 62
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 12/17/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 12/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 03/03/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 10/21/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/03/2020
Number of Days to Update: 73

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/22/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System
The Hazardous Waste Tracking System (HWTS) is the Department of Toxic Substances Control?s data repository for hazardous waste Identification (ID) numbers and manifest information. HWTS generates reports on hazardous waste shipments for generators, transporters, and TSDFs.

Date of Government Version: 10/15/2019
Date Data Arrived at EDR: 11/14/2019
Date Made Active in Reports: 02/07/2020
Number of Days to Update: 85

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 02/28/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites
A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 01/06/2020
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/06/2020
Number of Days to Update: 59

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 09/06/2019
Date Data Arrived at EDR: 09/10/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 51

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/03/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 63

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/03/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/27/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 12/11/2019
Number of Days to Update: 43

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/03/2020
Date Made Active in Reports: 03/05/2020
Number of Days to Update: 62

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 01/03/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 10/08/2019
Date Data Arrived at EDR: 10/10/2019
Date Made Active in Reports: 12/11/2019
Number of Days to Update: 62

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/03/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 11/13/2019
Date Data Arrived at EDR: 11/14/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 70

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/18/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 10/17/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/02/2020
Number of Days to Update: 72

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 02/13/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

KERN COUNTY:

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 10/28/2019
Date Data Arrived at EDR: 11/05/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 64

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/25/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 61

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 02/13/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List

Cupa facility list

Date of Government Version: 08/16/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/08/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List

Cupa facility list

Date of Government Version: 07/22/2019
Date Data Arrived at EDR: 07/23/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 65

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 03/12/2020
Next Scheduled EDR Contact: 06/29/2020
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 01/15/2020
Date Data Arrived at EDR: 01/16/2020
Date Made Active in Reports: 02/07/2020
Number of Days to Update: 22

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/15/2019
Date Data Arrived at EDR: 10/16/2019
Date Made Active in Reports: 12/12/2019
Number of Days to Update: 57

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/14/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/13/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills
This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 04/30/2012
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 42

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory
A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory
A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 71
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/14/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/13/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/27/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 10/02/2019
Number of Days to Update: 64
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/20/2019
Date Made Active in Reports: 01/27/2020
Number of Days to Update: 68
Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29
Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/20/2019
Date Made Active in Reports: 01/03/2020
Number of Days to Update: 44

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/13/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 11/20/2019
Date Data Arrived at EDR: 12/02/2019
Date Made Active in Reports: 02/07/2020
Number of Days to Update: 67

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 11/06/2019
Date Data Arrived at EDR: 11/07/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 62

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/05/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 10/30/2019
Date Data Arrived at EDR: 10/30/2019
Date Made Active in Reports: 12/11/2019
Number of Days to Update: 42

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 12/02/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 64

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/03/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 12/02/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 64

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/03/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 11/05/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 64

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/04/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/03/2019
Date Made Active in Reports: 02/07/2020
Number of Days to Update: 66

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/17/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 12/13/2019
Number of Days to Update: 52
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 02/10/2020
Next Scheduled EDR Contact: 03/30/2020
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/17/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/03/2020
Number of Days to Update: 73
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 02/10/2020
Next Scheduled EDR Contact: 03/30/2020
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/14/2019
Date Data Arrived at EDR: 12/23/2019
Date Made Active in Reports: 02/20/2020
Number of Days to Update: 59
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 12/23/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/14/2019
Date Data Arrived at EDR: 12/23/2019
Date Made Active in Reports: 02/21/2020
Number of Days to Update: 60
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 12/23/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 11/14/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 69
Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 11/26/2019
Date Data Arrived at EDR: 11/27/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 69

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/03/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 12/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/03/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 10/16/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 12/13/2019
Number of Days to Update: 52

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 01/08/2020
Date Data Arrived at EDR: 01/09/2020
Date Made Active in Reports: 03/06/2020
Number of Days to Update: 57

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/12/2020
Next Scheduled EDR Contact: 06/29/2020
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 12/12/2019
Date Data Arrived at EDR: 12/13/2019
Date Made Active in Reports: 02/20/2020
Number of Days to Update: 69

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 09/03/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/05/2019
Number of Days to Update: 57

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 02/20/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/05/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/19/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 65

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 10/30/2019
Date Data Arrived at EDR: 11/01/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 68

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/13/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/11/2019
Date Made Active in Reports: 02/21/2020
Number of Days to Update: 72

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 02/25/2020
Date Data Arrived at EDR: 02/26/2020
Date Made Active in Reports: 03/11/2020
Number of Days to Update: 14

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/03/2020
Date Made Active in Reports: 03/05/2020
Number of Days to Update: 62

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/17/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 11/04/2019
Date Data Arrived at EDR: 11/07/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 62

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 01/13/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/03/2019
Date Made Active in Reports: 02/07/2020
Number of Days to Update: 66

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 05/20/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 07/18/2019
Number of Days to Update: 58

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 01/23/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 10/17/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/02/2020
Number of Days to Update: 72

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 11/25/2019
Date Data Arrived at EDR: 11/27/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 69

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 02/03/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 05/29/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 63
Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/21/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/07/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/26/2019
Date Data Arrived at EDR: 10/23/2019
Date Made Active in Reports: 12/13/2019
Number of Days to Update: 51
Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/21/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/26/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/21/2020
Number of Days to Update: 73
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 09/25/2019
Date Data Arrived at EDR: 10/01/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 30
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 11/04/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 63

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 02/07/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 01/30/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 39

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 01/30/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 05/01/2019
Date Made Active in Reports: 06/21/2019
Number of Days to Update: 51

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/14/2020
Next Scheduled EDR Contact: 04/07/2020
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 10/02/2019
Date Made Active in Reports: 12/10/2019
Number of Days to Update: 69

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/18/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/09/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

BRIDLEGATE
SAND CREEK ROAD AND SAN JOSE AVE.
BRENTWOOD, CA 94513

TARGET PROPERTY COORDINATES

Latitude (North):	37.943197 - 37° 56' 35.51''
Longitude (West):	121.746841 - 121° 44' 48.63''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	610113.8
UTM Y (Meters):	4200047.5
Elevation:	204 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5640376 BRENTWOOD, CA
Version Date:	2012
West Map:	5640044 ANTIOCH SOUTH, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

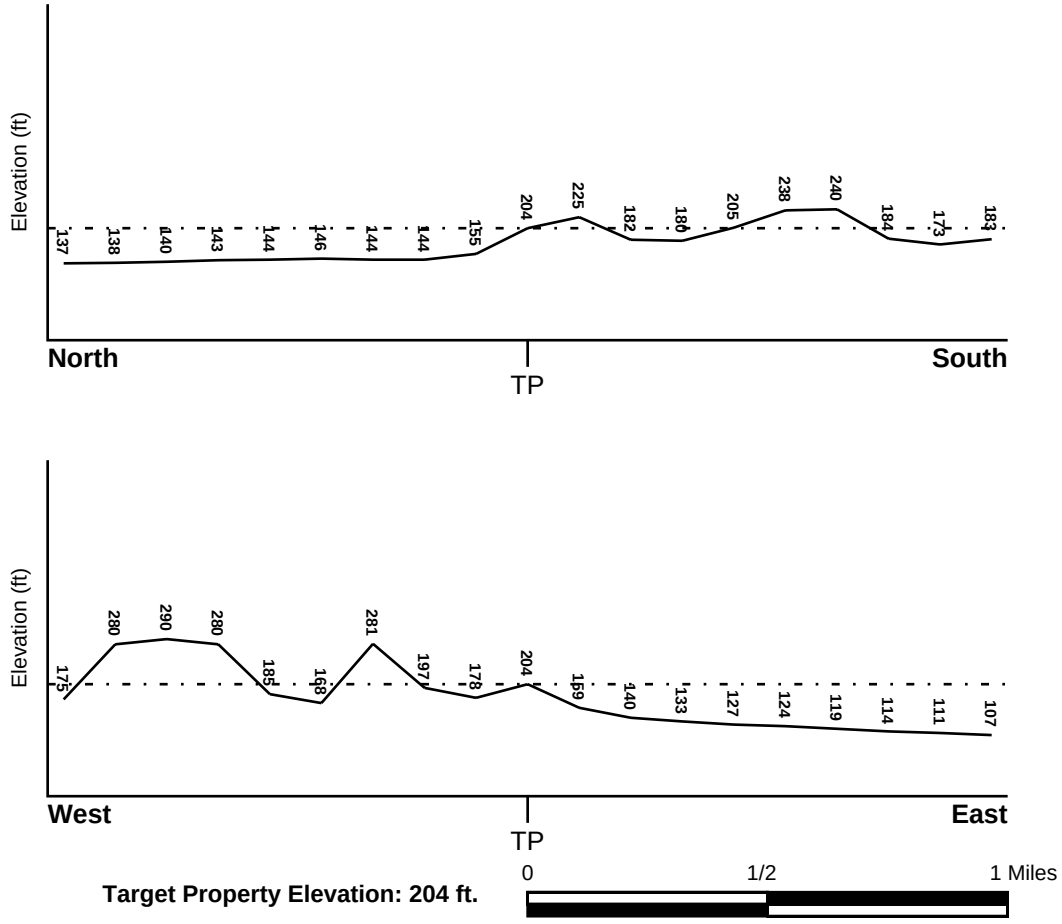
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 204 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06013C0353F	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06013C0335F	FEMA FIRM Flood data
06013C0345F	FEMA FIRM Flood data
06013C0361F	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
BRENTWOOD	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

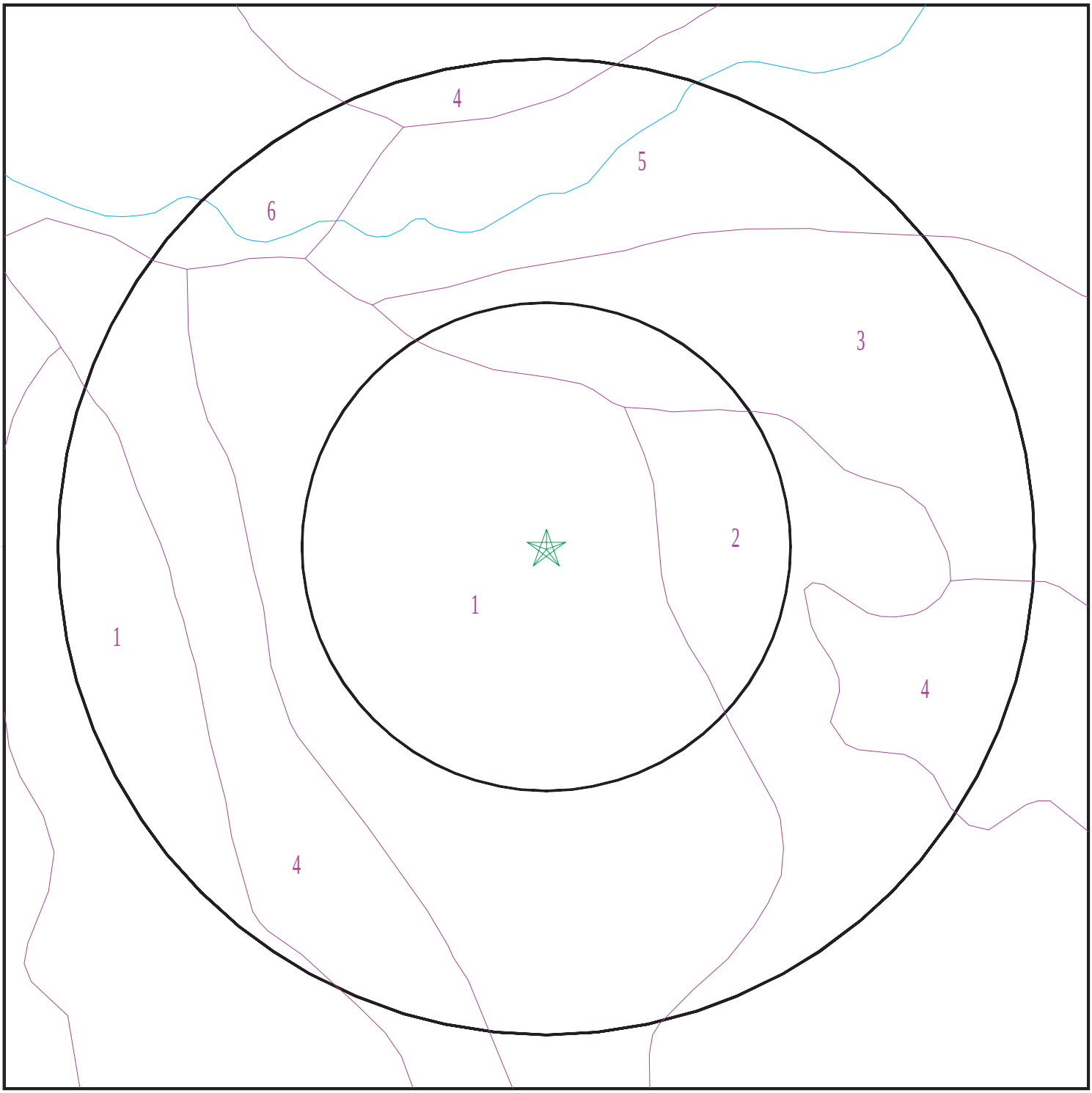
Era:	Cenozoic
System:	Tertiary
Series:	Eocene
Code:	Te *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 06010925.2r



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Bridlegate	CLIENT:	Engeo Inc.
ADDRESS:	Sand Creek Road and San Jose Ave. Brentwood CA 94513	CONTACT:	Brooke Spruit
LAT/LONG:	37.943197 / 121.746841	INQUIRY #:	06010925.2r
		DATE:	March 17, 2020 12:08 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: ALTAMONT

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	25 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0	Max: Min:
2	25 inches	48 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0	Max: Min:
3	48 inches	51 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0	Max: Min:

Soil Map ID: 2

Soil Component Name: ALTAMONT

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	25 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0	Max: Min:
2	25 inches	48 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0	Max: Min:
3	48 inches	51 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0	Max: Min:

Soil Map ID: 3

Soil Component Name: BRENTWOOD

Soil Surface Texture: clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	18 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4
2	18 inches	50 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4
3	50 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4

Soil Map ID: 4

Soil Component Name: CAPAY

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	35 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
2	35 inches	51 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
3	51 inches	72 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6

Soil Map ID: 5

Soil Component Name: SYCAMORE

Soil Surface Texture: silty clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 127 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
2	14 inches	40 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
3	40 inches	59 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6

Soil Map ID: 6

Soil Component Name: RINCON

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
2	11 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
3	29 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

OTHER STATE DATABASE INFORMATION

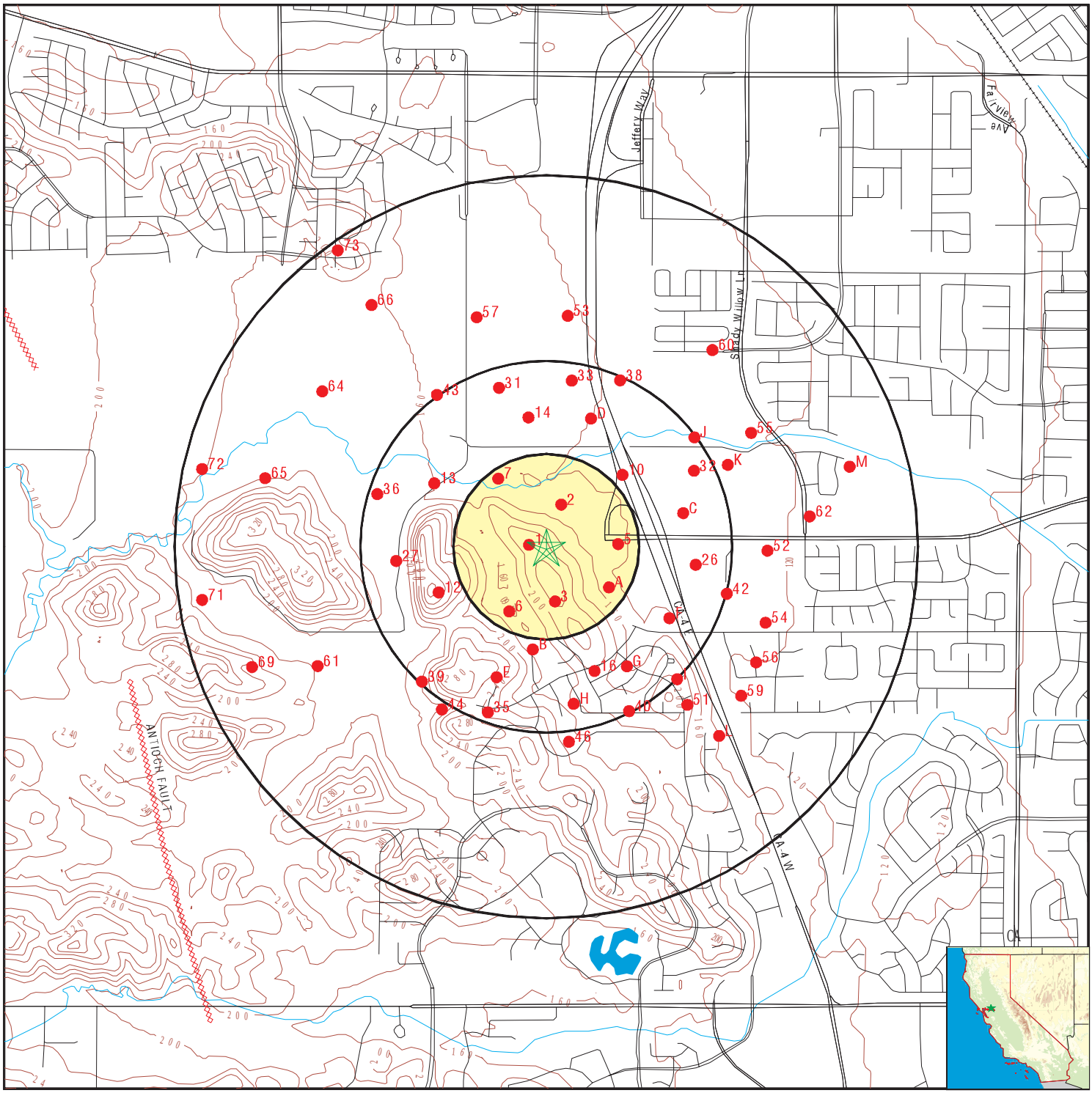
STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG13000054832	0 - 1/8 Mile West
2	CAOG13000054813	0 - 1/8 Mile NNE
3	CAOG13000054833	1/8 - 1/4 Mile South
A4	CAOG13000054855	1/8 - 1/4 Mile ESE
5	CAOG13000054766	1/8 - 1/4 Mile East
6	CAOG13000054817	1/8 - 1/4 Mile SSW
7	CAOG13000054818	1/8 - 1/4 Mile NW
A8	CAOG13000054816	1/8 - 1/4 Mile SE
B9	CAOG13000054875	1/4 - 1/2 Mile SSW
10	CAOG13000054819	1/4 - 1/2 Mile NE
B11	CAOG13000054824	1/4 - 1/2 Mile South
12	CAOG13000054884	1/4 - 1/2 Mile WSW
13	CAOG13000054793	1/4 - 1/2 Mile WNW
14	CAOG13000054783	1/4 - 1/2 Mile North
C15	CAOG13000054852	1/4 - 1/2 Mile ENE
16	CAOG13000054857	1/4 - 1/2 Mile SSE
D17	CAOG13000054799	1/4 - 1/2 Mile NNE
E18	CAOG13000054828	1/4 - 1/2 Mile SSW
D19	CAOG13000054800	1/4 - 1/2 Mile NNE
F20	CAOG13000054821	1/4 - 1/2 Mile ESE
C21	CAOG13000054877	1/4 - 1/2 Mile East
G22	CAOG13000054826	1/4 - 1/2 Mile SE
E23	CAOG13000054768	1/4 - 1/2 Mile SSW
F24	CAOG13000054834	1/4 - 1/2 Mile ESE
G25	CAOG13000054882	1/4 - 1/2 Mile SSE
26	CAOG13000054883	1/4 - 1/2 Mile East
27	CAOG13000054792	1/4 - 1/2 Mile West
C28	CAOG13000054774	1/4 - 1/2 Mile ENE
H29	CAOG13000054822	1/4 - 1/2 Mile South
H30	CAOG13000054856	1/4 - 1/2 Mile SSE
31	CAOG13000054784	1/4 - 1/2 Mile NNW
32	CAOG13000054775	1/4 - 1/2 Mile ENE
33	CAOG13000054801	1/4 - 1/2 Mile North
I34	CAOG13000054823	1/4 - 1/2 Mile SE
35	CAOG13000054830	1/4 - 1/2 Mile SSW
36	CAOG13000054789	1/4 - 1/2 Mile WNW
J37	CAOG13000054878	1/4 - 1/2 Mile NE

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
38	CAOG13000054802	1/4 - 1/2 Mile NNE
39	CAOG13000054788	1/4 - 1/2 Mile SW
40	CAOG13000054873	1/4 - 1/2 Mile SSE
J41	CAOG13000054874	1/2 - 1 Mile NE
42	CAOG13000054808	1/2 - 1 Mile ESE
43	CAOG13000054787	1/2 - 1 Mile NW
44	CAOG13000054791	1/2 - 1 Mile SSW
K45	CAOG13000054866	1/2 - 1 Mile ENE
46	CAOG13000054831	1/2 - 1 Mile South
I47	CAOG13000054829	1/2 - 1 Mile SE
K48	CAOG13000054881	1/2 - 1 Mile ENE
K49	CAOG13000054876	1/2 - 1 Mile ENE
K50	CAOG13000054869	1/2 - 1 Mile ENE
51	CAOG13000054825	1/2 - 1 Mile SE
52	CAOG13000054862	1/2 - 1 Mile East
53	CAOG13000054778	1/2 - 1 Mile North
54	CAOG13000054870	1/2 - 1 Mile ESE
55	CAOG13000054868	1/2 - 1 Mile ENE
56	CAOG13000054781	1/2 - 1 Mile ESE
57	CAOG13000054849	1/2 - 1 Mile NNW
L58	CAOG13000054827	1/2 - 1 Mile SE
59	CAOG13000054776	1/2 - 1 Mile SE
60	CAOG13000054848	1/2 - 1 Mile NE
61	CAOG13000054790	1/2 - 1 Mile WSW
62	CAOG13000054798	1/2 - 1 Mile East
L63	CAOG13000054770	1/2 - 1 Mile SE
64	CAOG13000054880	1/2 - 1 Mile NW
65	CAOG13000054864	1/2 - 1 Mile WNW
66	CAOG13000054786	1/2 - 1 Mile NW
M67	CAOG13000202233	1/2 - 1 Mile ENE
M68	CAOG13000202277	1/2 - 1 Mile ENE
69	CAOG13000054785	1/2 - 1 Mile WSW
M70	CAOG13000202244	1/2 - 1 Mile ENE
71	CAOG13000054811	1/2 - 1 Mile West
72	CAOG13000054845	1/2 - 1 Mile WNW
73	CAOG13000054796	1/2 - 1 Mile NW

PHYSICAL SETTING SOURCE MAP - 06010925.2r



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Bridlegate	CLIENT:	Engeo Inc.
ADDRESS:	Sand Creek Road and San Jose Ave. Brentwood CA 94513	CONTACT:	Brooke Spruit
		INQUIRY #:	06010925.2r
LAT/LONG:	37.943197 / 121.746841	DATE:	March 17, 2020 12:08 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
West
0 - 1/8 Mile

OIL_GAS **CAOG13000054832**

API #:	0401300085	Well #:	38-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ward	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	07/04/1964		

2
NNE
0 - 1/8 Mile

OIL_GAS **CAOG13000054813**

API #:	0401300066	Well #:	3-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ward	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	09/09/1962		

3
South
1/8 - 1/4 Mile

OIL_GAS **CAOG13000054833**

API #:	0401300086	Well #:	36-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ward	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	Y
SPUD Date:	06/05/1964		

A4
ESE
1/8 - 1/4 Mile

OIL_GAS **CAOG13000054855**

API #:	0401320100	Well #:	39
Well Status:	Plugged	Well Type:	OG
Operator Name:	Shell Western E&P Inc.	Lease Name:	Dow-Termo Ward
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	Y	SPUD Date:	05/31/1975

Map ID
Direction
Distance

Database EDR ID Number

5
East **OIL_GAS** **CAOG13000054766**
1/8 - 1/4 Mile

API #:	0401300018	Well #:	37-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ward	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	06/23/1964		

6
SSW **OIL_GAS** **CAOG13000054817**
1/8 - 1/4 Mile

API #:	0401300070	Well #:	32-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ward	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	05/03/1963		

7
NW **OIL_GAS** **CAOG13000054818**
1/8 - 1/4 Mile

API #:	0401300071	Well #:	34-10
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ward	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	11/15/1963		

A8
SE **OIL_GAS** **CAOG13000054816**
1/8 - 1/4 Mile

API #:	0401300069	Well #:	31-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ward	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	01/06/1963		

Map ID
Direction
Distance

Database EDR ID Number

B9
SSW
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054875**

API #:	0401320021	Well #:	14
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	04/02/1968

10
NE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054819**

API #:	0401300072	Well #:	35-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ward	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	03/02/1964		

B11
South
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054824**

API #:	0401300077	Well #:	4
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	07/03/1963

12
WSW
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054884**

API #:	0401300016	Well #:	42-9
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio-Shellenberger	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	08/29/1963		

Map ID
Direction
Distance

Database EDR ID Number

13
WNW
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054793**

API #:	0401300045	Well #:	43-9
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio-Shellenberger	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	12/08/1963		

14
North
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054783**

API #:	0401300035	Well #:	12-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Garaventa	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	10/17/1963		

C15
ENE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054852**

API #:	0401320124	Well #:	5
Well Status:	Plugged	Well Type:	OG
Operator Name:	Maria L. Andrade	Lease Name:	Andrade
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	04/01/1978

16
SSE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054857**

API #:	0401320105	Well #:	16
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	01/22/1976

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

D17
NNE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054799**

API #:	0401300051	Well #:	11-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Maggiora-Capital Co.	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	08/29/1963		

E18
SSW
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054828**

API #:	0401300081	Well #:	8
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	01/31/1964

D19
NNE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054800**

API #:	0401300052	Well #:	13-10
Well Status:	Plugged	Well Type:	Multi
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Maggiora-Capital Co.	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	11/17/1963		

F20
ESE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054821**

API #:	0401300074	Well #:	2
Well Status:	Plugged	Well Type:	OG
Operator Name:	John Pestana Family Trust	Lease Name:	Davis-Venturini
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	12/17/1965

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

C21
East **OIL_GAS** **CAOG13000054877**
1/4 - 1/2 Mile

API #:	0401320013	Well #:	2
Well Status:	Plugged	Well Type:	OG
Operator Name:	Sinco Oil Corp.	Lease Name:	Andrade
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	10/10/1967

G22
SE **OIL_GAS** **CAOG13000054826**
1/4 - 1/2 Mile

API #:	0401300079	Well #:	6
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	08/04/1963

E23
SSW **OIL_GAS** **CAOG13000054768**
1/4 - 1/2 Mile

API #:	0401300020	Well #:	2
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	01/04/1963

F24
ESE **OIL_GAS** **CAOG13000054834**
1/4 - 1/2 Mile

API #:	0401300009	Well #:	1
Well Status:	Plugged	Well Type:	OG
Operator Name:	John Pestana Family Trust	Lease Name:	Davis-Venturini
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	02/20/1963

Map ID
Direction
Distance

Database EDR ID Number

G25
SSE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054882**

API #:	0401300014	Well #:	12
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	Y	SPUD Date:	11/15/1966

26
East
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054883**

API #:	0401300015	Well #:	43-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Sunset Exploration, Inc.	Lease Name:	Ridell
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	02/20/1963

27
West
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054792**

API #:	0401300044	Well #:	41-9
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio-Shellenberger	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	Y
SPUD Date:	03/14/1963		

C28
ENE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054774**

API #:	0401300026	Well #:	42-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Sunset Exploration, Inc.	Lease Name:	Arata
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	03/28/1963

Map ID
Direction
Distance

Database EDR ID Number

H29
South **OIL_GAS** **CAOG13000054822**
1/4 - 1/2 Mile

API #:	0401300075	Well #:	1
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	07/10/1962

H30
SSE **OIL_GAS** **CAOG13000054856**
1/4 - 1/2 Mile

API #:	0401320085	Well #:	15
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	06/01/1972

31
NNW **OIL_GAS** **CAOG13000054784**
1/4 - 1/2 Mile

API #:	0401300036	Well #:	14-10
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Garaventa	Field Name:	Brentwood (ABD)
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	11/06/1963		

32
ENE **OIL_GAS** **CAOG13000054775**
1/4 - 1/2 Mile

API #:	0401300027	Well #:	44-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Sunset Exploration, Inc.	Lease Name:	Arata
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	10/23/1963

Map ID
Direction
Distance

Database EDR ID Number

33
North **OIL_GAS** **CAOG13000054801**
1/4 - 1/2 Mile

API #:	0401300053	Well #:	33X-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Maggiora-Capital Co.	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	05/07/1966		

I34
SE **OIL_GAS** **CAOG13000054823**
1/4 - 1/2 Mile

API #:	0401300076	Well #:	3
Well Status:	Plugged	Well Type:	Multi
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	01/26/1963

35
SSW **OIL_GAS** **CAOG13000054830**
1/4 - 1/2 Mile

API #:	0401300083	Well #:	10
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	03/09/1965

36
WNW **OIL_GAS** **CAOG13000054789**
1/4 - 1/2 Mile

API #:	0401300041	Well #:	4-9
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio-Shellenberger	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	07/06/1962		

Map ID
Direction
Distance

Database EDR ID Number

J37
NE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054878**

API #:	0401320008	Well #:	1
Well Status:	Plugged	Well Type:	OG
Operator Name:	Allied Energy Corp.	Lease Name:	Transamerica-Maggiora
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	07/31/1967

38
NNE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054802**

API #:	0401300054	Well #:	43X-10
Well Status:	Plugged	Well Type:	DH
Operator Name:	Shell Western E&P Inc.	Lease Name:	Maggiora-Capital Co.
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	12/14/1965

39
SW
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054788**

API #:	0401300040	Well #:	2-16
Well Status:	Plugged	Well Type:	INJ
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio-Shellenberger	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	12/01/1962		

40
SSE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054873**

API #:	0401320019	Well #:	13
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	03/15/1968

Map ID
Direction
Distance

Database EDR ID Number

J41
NE
1/2 - 1 Mile

OIL_GAS **CAOG13000054874**

API #:	0401320020	Well #:	2
Well Status:	Plugged	Well Type:	OG
Operator Name:	Allied Energy Corp.	Lease Name:	Transamerica-Maggiora
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	03/20/1968

42
ESE
1/2 - 1 Mile

OIL_GAS **CAOG13000054808**

API #:	0401300060	Well #:	4-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Shell Western E&P Inc.	Lease Name:	Ridell
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	12/19/1962

43
NW
1/2 - 1 Mile

OIL_GAS **CAOG13000054787**

API #:	0401300039	Well #:	21-9
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	04/14/1964		

44
SSW
1/2 - 1 Mile

OIL_GAS **CAOG13000054791**

API #:	0401300043	Well #:	22-16
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio-Shellenberger	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	09/11/1963		

Map ID
Direction
Distance

Database EDR ID Number

K45
ENE
1/2 - 1 Mile

OIL_GAS **CAOG13000054866**

API #:	0401320045	Well #:	4
Well Status:	Plugged	Well Type:	OG
Operator Name:	Maria L. Andrade	Lease Name:	Andrade
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	03/26/1969

46
South
1/2 - 1 Mile

OIL_GAS **CAOG13000054831**

API #:	0401300084	Well #:	11
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	10/11/1965

I47
SE
1/2 - 1 Mile

OIL_GAS **CAOG13000054829**

API #:	0401300082	Well #:	9
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	11/17/1964

K48
ENE
1/2 - 1 Mile

OIL_GAS **CAOG13000054881**

API #:	0401300601	Well #:	2007-1
Well Status:	Plugged	Well Type:	OG
Operator Name:	Unknown Operator	Lease Name:	Unknown Conductor
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	05/17/2007

Map ID
Direction
Distance

Database EDR ID Number

K49
ENE
1/2 - 1 Mile

OIL_GAS **CAOG13000054876**

API #:	0401320012	Well #:	1
Well Status:	Plugged	Well Type:	OG
Operator Name:	Maria L. Andrade	Lease Name:	Andrade
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	12/07/1967

K50
ENE
1/2 - 1 Mile

OIL_GAS **CAOG13000054869**

API #:	0401320032	Well #:	3
Well Status:	Plugged	Well Type:	OG
Operator Name:	Maria L. Andrade	Lease Name:	Andrade
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	07/11/1968

51
SE
1/2 - 1 Mile

OIL_GAS **CAOG13000054825**

API #:	0401300078	Well #:	5
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	07/22/1963

52
East
1/2 - 1 Mile

OIL_GAS **CAOG13000054862**

API #:	0401320056	Well #:	1
Well Status:	Plugged	Well Type:	OG
Operator Name:	Sinco Oil Corp.	Lease Name:	Ridell
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	Y	SPUD Date:	10/06/1969

Map ID
Direction
Distance

Database EDR ID Number

53
North
1/2 - 1 Mile

OIL_GAS **CAOG13000054778**

API #:	0401300030	Well #:	1-10
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Production Specialties Company		
Lease Name:	Continente	Field Name:	Brentwood (ABD)
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	11/01/1962		

54
ESE
1/2 - 1 Mile

OIL_GAS **CAOG13000054870**

API #:	0401320028	Well #:	1
Well Status:	Plugged	Well Type:	DH
Operator Name:	J. L. Davis	Lease Name:	Ridell Unit
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	06/08/1968

55
ENE
1/2 - 1 Mile

OIL_GAS **CAOG13000054868**

API #:	0401320038	Well #:	1
Well Status:	Plugged	Well Type:	DH
Operator Name:	J. L. Davis	Lease Name:	R. Carlisle
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	10/29/1968

56
ESE
1/2 - 1 Mile

OIL_GAS **CAOG13000054781**

API #:	0401300033	Well #:	21-15
Well Status:	Plugged	Well Type:	OG
Operator Name:	Shell Western E&P Inc.	Lease Name:	Bonde-Bloomfield
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	08/13/1963

Map ID
Direction
Distance

Database EDR ID Number

57
NNW
1/2 - 1 Mile

OIL_GAS **CAOG13000054849**

API #:	0401320340	Well #:	1-10D
Well Status:	Plugged	Well Type:	GAS
Operator Name:	EOG Resources, Inc.	Lease Name:	Sunset-Graham
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	Y	SPUD Date:	03/18/1997

L58
SE
1/2 - 1 Mile

OIL_GAS **CAOG13000054827**

API #:	0401300080	Well #:	7
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	10/12/1963

59
SE
1/2 - 1 Mile

OIL_GAS **CAOG13000054776**

API #:	0401300028	Well #:	2-15
Well Status:	Plugged	Well Type:	OG
Operator Name:	Production Specialties Company		
Lease Name:	Bonde-Bloomfield	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	06/01/1963		

60
NE
1/2 - 1 Mile

OIL_GAS **CAOG13000054848**

API #:	0401320339	Well #:	1-10D
Well Status:	Plugged	Well Type:	OG
Operator Name:	EOG Resources, Inc.	Lease Name:	Sunset-Nunn
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	Y	SPUD Date:	02/11/1997

Map ID
Direction
Distance

Database EDR ID Number

61
WSW
1/2 - 1 Mile

OIL_GAS **CAOG13000054790**

API #:	0401300042	Well #:	21-16
Well Status:	Plugged	Well Type:	DH
Operator Name:	Shell Western E&P Inc.	Lease Name:	Ginochio-Shellenberger
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	07/17/1963

62
East
1/2 - 1 Mile

OIL_GAS **CAOG13000054798**

API #:	0401300050	Well #:	41-10
Well Status:	Plugged	Well Type:	DH
Operator Name:	Shell Western E&P Inc.	Lease Name:	Lea
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	01/17/1963

L63
SE
1/2 - 1 Mile

OIL_GAS **CAOG13000054770**

API #:	0401300022	Well #:	3
Well Status:	Plugged	Well Type:	OG
Operator Name:	John Pestana Family Trust	Lease Name:	Tom Davis et al
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	08/13/1963

64
NW
1/2 - 1 Mile

OIL_GAS **CAOG13000054880**

API #:	0401320005	Well #:	22-9
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio	Field Name:	Brentwood (ABD)
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	07/07/1967		

Map ID
Direction
Distance

Database EDR ID Number

65
WNW
1/2 - 1 Mile

OIL_GAS **CAOG13000054864**

API #:	0401320053	Well #:	1
Well Status:	Plugged	Well Type:	DH
Operator Name:	Sinco Oil Corp.	Lease Name:	Williamson
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	Y	SPUD Date:	07/23/1969

66
NW
1/2 - 1 Mile

OIL_GAS **CAOG13000054786**

API #:	0401300038	Well #:	2-9
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio	Field Name:	Brentwood (ABD)
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	06/16/1962		

M67
ENE
1/2 - 1 Mile

OIL_GAS **CAOG13000202233**

API #:	0401320337	Well #:	1-11D
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Sunset Exploration, Inc.	Lease Name:	Sunset-Castello
Field Name:	River Break Gas	Area Name:	South
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	Y	SPUD Date:	08/29/1996

M68
ENE
1/2 - 1 Mile

OIL_GAS **CAOG13000202277**

API #:	0401320349	Well #:	1-11
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Production Specialties Company		
Lease Name:	Sunset Cabo	Field Name:	River Break Gas
Area Name:	South	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	11/17/1998		

Map ID
Direction
Distance

Database EDR ID Number

69
WSW
1/2 - 1 Mile

OIL_GAS **CAOG13000054785**

API #:	0401300037	Well #:	1-16
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio	Field Name:	Brentwood (ABD)
Area Name:	West	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	05/17/1963		

M70
ENE
1/2 - 1 Mile

OIL_GAS **CAOG13000202244**

API #:	0401320188	Well #:	1
Well Status:	Plugged	Well Type:	DH
Operator Name:	Venada National	Lease Name:	Sandhill
Field Name:	River Break Gas	Area Name:	South
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	06/05/1982

71
West
1/2 - 1 Mile

OIL_GAS **CAOG13000054811**

API #:	0401300064	Well #:	33-9
Well Status:	Plugged	Well Type:	DH
Operator Name:	Shell Western E&P Inc.	Lease Name:	Sullenger
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	04/03/1964

72
WNW
1/2 - 1 Mile

OIL_GAS **CAOG13000054845**

API #:	0401320212	Well #:	1
Well Status:	Plugged	Well Type:	DH
Operator Name:	Venturini Associates Inc.	Lease Name:	Williamson
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	Y	SPUD Date:	08/27/1983

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

73
NW
1/2 - 1 Mile

OIL_GAS **CAOG13000054796**

API #:	0401300048	Well #:	4-4
Well Status:	Plugged	Well Type:	OG
Operator Name:	Shell Western E&P Inc.	Lease Name:	Heidorn
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	05/30/1962

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94513	5	0

Federal EPA Radon Zone for CONTRA COSTA County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for CONTRA COSTA COUNTY, CA

Number of sites tested: 55

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.760 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.300 pCi/L	100%	0%	0%
Basement	0.525 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX B

Old Republic Title Company

Preliminary Title Report

OLD REPUBLIC TITLE COMPANY

1000 Burnett Ave, Suite 400
Concord, CA 94520
(925) 687-7880 Fax: (925) 687-4836

PRELIMINARY REPORT

21ST UPDATE

WEST COAST HOM BUILDERS, INC.
4021 PORT CHICAGO HIGHWAY
CONCORD, CA 94520

Our Order Number 274337-DJ

When Replying Please Contact:

Donna Jones
DonnaJ@ortc.com
(925) 687-7880

Property Address:

Proposed Subdivision 8506, Bridlegate , Brentwood, CA

In response to the above referenced application for a policy of title insurance, OLD REPUBLIC TITLE COMPANY, as issuing Agent of Old Republic National Title Insurance Company, hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy or Policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said policy forms.

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said Policy or Policies are set forth in Exhibit I attached. The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. Limitations on Covered Risks applicable to the Homeowner's Policy of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Exhibit I. Copies of the Policy forms should be read. They are available from the office which issued this report.

Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Exhibit I of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.
It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects, and encumbrances affecting title to the land.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

Dated as of March 17, 2020, at 7:30 AM

OLD REPUBLIC TITLE COMPANY
For Exceptions Shown or Referred to, See Attached

The form of policy of title insurance contemplated by this report is:

CLTA Standard Coverage Policy -1990. A specific request should be made if another form or additional coverage is desired.

The estate or interest in the land hereinafter described or referred or covered by this Report is:

a FEE as to Parcel One and an EASEMENT as to Parcel Two.

Title to said estate or interest at the date hereof is vested in:

WEST COAST HOME BUILDERS, INC., a California corporation

The land referred to in this Report is situated in the County of Contra Costa, City of Brentwood, State of California, and is described as follows:

PARCEL ONE:

The Southwest 1/4 of Section 10, Township 1 North, Range 2 East, Mount Diablo Base and Meridian.

EXCEPTING THEREFROM:

1. Rights reserved in the Deed from Barbara Ann Ward, Executrix of the Estate of Robert Roger Ward, alias, deceased, recorded June 2, 1967, Book 5381, Official Records, Page 63, as follows:

"An undivided one-half (1/2) interest of all oil, gas, casinghead gasoline and other hydrocarbon and mineral substances under said land without right of entry upon the surface of said lands for the purpose of exploring, taking, removing, disposing, mining and operating for oil, gas, and other hydrocarbon and mineral substances."

2. Rights reserved in the Deed from John Stanley Ward, et ux, recorded June 2, 1967, Book 5381, Official Records, Page 66, as follows:

"An undivided one-half (1/2) interest of all oil, gas, casinghead gasoline and other hydrocarbon and mineral substances under said land without right of entry upon the surface of said lands for the purpose of exploring, taking, removing, disposing, mining and operating for oil, gas, and other hydrocarbon and mineral substances."

3. That portion thereof described as Parcel 1 in the Final Order of Condemnation to Contra Costa Water District, recorded November 14, 1995, in Official Records, under recorder's Series No. 95-197781.

4. All that portion described in that Final Order of Condemnation to State Route 4 Bypass Authority, recorded January 31, 2003, in Official Records, under Recorder's Series No. 2003-49906, and as later quitclaimed State Route 4 Bypass Authority, a Joint Exercise of Powers Agency to the City of Brentwood, a municipal corporation of the State of California, its successors and assigns, by instrument recorded May 21, 2013, Series No. 2013-0128598, Official Records.

5. The interest conveyed to the City of Brentwood by deed recorded March 20, 2007, in Official Records, under Recorder's Series No. 2007-80685.

PARCEL TWO:

The rights reserved in the Final Order of Condemnation to Contra Costa Water District, recorded November 14, 1995 under recorders' Series No. 95-197781, as follows:

The right to use the surface of the property for ingress and egress, inclusive of the right to pave the surface and plant crops with shallow root structures; however, said owner shall not be permitted to grade the property being acquired herein for the water pipeline or plant shrubs or trees with root structures which could impair the water pipeline, nor perform any other activity which will be detrimental to the facilities being installed, which property is described as follows:

That certain parcel of land crossing the southwest quarter of section 10, Township 1 North, range 2 East of the M.D.G.M. as the same is shown on the record of survey filed March 13, 1991 in Book 97 of Land Survey Maps, at Page 34, in the office of the Contra Costa County Recorder, being all of said southwest quarter of said section 10 lying easterly of the following described line:

Beginning at the northeast corner of said southwest quarter of section 10, thence along the northerly boundary of said quarter section, N89° 28' 43" W (record) 85.55 feet more or less, to the true point of beginning of the line herein described, hereinafter referred to as "Point A", said point having state plane coordinates of Y=529,307.45 feet, X=1,642,207.79 feet; thence S00° 53'14" W 268.62 feet to the Easterly line of a 75' wide Pacific Gas and Electric right of way; thence, along said easterly line of said 75' wide Pacific Gas and Electric right of way, S19° 56' 13" E 239.57 feet to the easterly line of said southwest quarter, section 10 and the terminus of the line herein described: said terminus having state plane coordinates of Y=528,813.65 feet, X=1,642,285.32 feet.

(Being APN 019-082-007)

At the date hereof exceptions to coverage in addition to the Exceptions and Exclusions in said policy form would be as follows:

1. Taxes and assessments, general and special, for the fiscal year 2020 - 2021, a lien, but not yet due or payable.

2. Taxes and assessments, general and special, for the fiscal year 2019 - 2020, as follows:

Assessor's Parcel No	:	019-082-007	
Code No.	:	10-046	
1st Installment	:	$155,198.44	Marked Paid
2nd Installment	:	$155,198.44	NOT Marked Paid
Land	:	$3,493,243.00	
Imp. Value	:	$0.00	
Exemption	:	$0.00	

3. The lien of supplemental taxes, if any, assessed pursuant to the provisions of Section 75, et seq., of the Revenue and Taxation Code of the State of California.

4. Assessments, included with taxes, for Assessment District No. 2006-1, a notice of which was recorded as follows:

Instrument Entitled	:	Notice of Assessment
By	:	City of Brentwood
Recorded	:	July 18, 2006 in Official Records, under Recorder's Serial Number 2006-227054

NOTE: The current annual amount levied against this land is $257,289.64.

5. Assessments that may be levied, as follows:

For/By : City of Brentwood CFD #5

Disclosed by Amended Assessment District Map

6. Rights of the public, County and/or City, in and to that portion of said land lying within the lines of SAND CREEK ROAD and SAN JOSE AVENUE.

7. An easement affecting that portion of said land and for the purposes stated herein and incidental purposes as provided in the following

Instrument	:	Grant of Right of Way
Granted to	:	Great Western Power Company of California, a California corporation
For	:	Electric transmission lines and for telephone purposes
Recorded	:	July 5th, 1930 in Book 226 of Official Records, Page 387
Affects	:	The exact location is not disclosed of record

8. An easement affecting that portion of said land and for the purposes stated herein and incidental purposes as provided in the following

Instrument	:	Deed
Granted to	:	Pacific Gas and Electric Company, a California corporation
For	:	Pipelines
Recorded	:	June 27th, 1947 in Book 1097 of Official Records, Page 495
Affects	:	A portion, 10 feet in width

9. An easement affecting that portion of said land and for the purposes stated herein and incidental purposes as provided in the following

Instrument	:	Deed
Granted to	:	Pacific Gas and Electric Company, a California corporation
For	:	Electric transmission lines
Recorded	:	July 13th, 1950 in Book 1593 of Official Records, Page 533
Affects	:	A northeastern portion of said land

10. An easement affecting that portion of said land and for the purposes stated herein and incidental purposes as provided in the following

Instrument	:	Deed
Granted to	:	Pacific Gas and Electric Company, a California corporation
For	:	Pipelines
Recorded	:	July 3rd, 1962 in Book 4152 of Official Records, Page 326
Affects	:	Portions

11. Deed of Trust to secure any indebtedness incurred under that certain Revolving Credit Agreement dated September 1, 1983, as said Credit Agreement is modified and extended by various agreements appearing of record and executed by the several record owners of the properties involved:

Trustor/Borrower	:	West Coast Home Builders, Inc., a California corporation
Trustee	:	American Securities Company, a corporation
Beneficiary/Lender	:	Wells Fargo Bank, N.A., a national banking association
Dated	:	October 6, 1998
Recorded	:	October 19, 1998, Recorder's Series No. 98-257576
Loan No.	:	02190W-135
Returned to	:	Wells Fargo Bank, N.A., 2835 Mitchell Dr., Suite 101, Walnut Creek, CA 94598 Affects this and other property.

12. An easement affecting that portion of said land and for the purposes stated herein and incidental purposes as provided in the following

Instrument	:	Easement Deed
Granted to	:	City of Brentwood, a municipal corporation
For	:	Water Pipeline purposes, 15 feet in width and temporary construction easement, 35 feet in width
Recorded	:	December 9th, 1999 in Official Records, under Recorder's Serial Number 1999-318402
Affects	:	Portions

13. Release and relinquishment of abutter's or access rights to and from State Highway 4, upon which premises abuts, as follows:

Instrument	:	Final Order of Condemnation
To	:	State Route 4 Bypass Authority, a joint exercise of powers entity
Dated	:	January 6, 2003
Recorded	:	January 31, 2003 in Official Records under Recorder's Serial Number 2003-0049906

14. Oil and Gas Lease for and upon the terms, covenants and conditions contained or referred to therein,

Dated	:	December 10, 2012
Lessor	:	Barbara Ann Ward
Lessee	:	West Coast Land Service
Recorded	:	February 28, 2013 in Official Records under Recorder's Serial Number 2013-0053267

NOTE: The Lessee's interest under said lease was assigned of record,

From	:	West Coast Land Service
To	:	Orchard E&P, LLC, a California limited liability company
Recorded	:	September 30, 2014 in Official Records under Recorder's Serial Number 2014-0167278

NOTE: The Lessee's interest under said lease was assigned of record,

From	:	Orchard E&P, LLC, a California limited liability company
To	:	Powerdrive Oil & Gas Company, LLC, a Nevada limited liability company
Recorded	:	December 8, 2016 in Official Records under Recorder's Serial Number 2016-0266586

15. Oil and Gas Lease for and upon the terms, covenants and conditions contained or referred to therein,

Dated	:	December 10, 2012
Lessor	:	Therese May Ward
Lessee	:	West Coast Land Service
Recorded	:	July 10, 2013 in Official Records under Recorder's Serial Number 2013-0172741

NOTE: The Lessee's interest under said lease was assigned of record,

From	:	West Coast Land Service
To	:	Orchard E&P, LLC, a California limited liability company
Recorded	:	September 30, 2014 in Official Records under Recorder's Serial Number 2014-0167278

NOTE: The Lessee's interest under said lease was assigned of record,

From	:	Orchard E&P, LLC, a California limited liability company
To	:	Powerdrive Oil & Gas Company, LLC, a Nevada limited liability company
Recorded	:	December 8, 2016 in Official Records under Recorder's Serial Number 2016-0266586

16. Any unrecorded and subsisting leases.

---------- Informational Notes ----------

A. The applicable rate(s) for the policy(s) being offered by this report or commitment appears to be section(s) to be determined.

B. NOTE: The last recorded transfer or agreement to transfer the land described herein is as follows:

Instrument Entitled	:	Corporation Grant Deed
By/From	:	Meadow Creek Estates, Inc.
To	:	WEST COAST HOME BUILDERS, INC., a California corporation
Recorded	:	October 19, 1998 in Official Records under Recorder's Serial Number 98-0257575

Exhibit I

CALIFORNIA LAND TITLE ASSOCIATION STANDARD COVERAGE POLICY - 1990 (11/09/18)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses which arise by reason of:

1. (a) Any law, ordinance, or governmental regulation (including but not limited to building or zoning laws, ordinances, or regulations) restricting, regulating, prohibiting, or relating to
   (i) the occupancy, use, or enjoyment of the land;
   (ii) the character, dimensions, or location of any improvement now or hereafter erected on the land;
   (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or
   (iv) environmental protection; or the effect of any violation of these laws, ordinances, or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien, or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.

   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims, or other matters:
   (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;
   (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
   (c) resulting in no loss or damage to the insured claimant;
   (d) attaching or created subsequent to Date of Policy; or
   (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing-business laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any claim, which arises out of the transaction vesting in the insured the estate of interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

EXCEPTIONS FROM COVERAGE

SCHEDULE B - PART I

This policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees, or expenses which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.

   Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material unless such lien is shown by the public records at Date of Policy.

OLD REPUBLIC TITLE

rev. 09/2019

FACTS

WHAT DOES OLD REPUBLIC TITLE DO WITH YOUR PERSONAL INFORMATION?

Why?	Financial companies choose how they share your personal information. Federal law gives consumers the right to limit some but not all sharing. Federal law also requires us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand what we do.
What?	The types of personal information we collect and share depend on the product or service you have with us. This information can include: • Social Security number and employment information • Mortgage rates and payments and account balances • Checking account information and wire transfer instructions When you are no longer our customer, we continue to share your information as described in this notice.
How?	All financial companies need to share customers' personal information to run their everyday business. In the section below, we list the reasons financial companies can share their customers' personal information; the reasons Old Republic Title chooses to share; and whether you can limit this sharing.

Reasons we can share your personal information	Does Old Republic Title share?	Can you limit this sharing?
For our everyday business purposes — such as to process your transactions, maintain your account(s), or respond to court orders and legal investigations, or report to credit bureaus	**Yes**	**No**
For our marketing purposes — to offer our products and services to you	**No**	**We don't share**
For joint marketing with other financial companies	**No**	**We don't share**
For our affiliates' everyday business purposes — information about your transactions and experiences	**Yes**	**No**
For our affiliates' everyday business purposes — information about your creditworthiness	**No**	**We don't share**
For our affiliates to market to you	**No**	**We don't share**
For non-affiliates to market to you	**No**	**We don't share**

Questions	**Go to www.oldrepublictitle.com** (Contact Us)

Who we are	
Who is providing this notice?	Companies with an Old Republic Title name and other affiliates. Please see below for a list of affiliates.

What we do	
How does Old Republic Title protect my personal information?	To protect your personal information from unauthorized access and use, we use security measures that comply with federal law. These measures include computer safeguards and secured files and buildings. For more information, visit http://www.OldRepublicTitle.com/newnational/Contact/privacy.
How does Old Republic Title collect my personal information?	We collect your personal information, for example, when you: • Give us your contact information or show your driver's license • Show your government-issued ID or provide your mortgage information • Make a wire transfer We also collect your personal information from others, such as credit bureaus, affiliates, or other companies.
Why can't I limit all sharing?	Federal law gives you the right to limit only: • Sharing for affiliates' everyday business purposes - information about your creditworthiness • Affiliates from using your information to market to you • Sharing for non-affiliates to market to you State laws and individual companies may give you additional rights to limit sharing. See the "Other important information" section below for your rights under state law.

Definitions	
Affiliates	Companies related by common ownership or control. They can be financial and nonfinancial companies. • Our affiliates include companies with an Old Republic Title name, and financial companies such as Attorneys' Title Fund Services, LLC, Lex Terrae National Title Services, Inc., Mississippi Valley Title Services Company, and The Title Company of North Carolina.
Non-affiliates	Companies not related by common ownership or control. They can be financial and non-financial companies. • Old Republic Title does not share with non-affiliates so they can market to you
Joint marketing	A formal agreement between non-affiliated financial companies that together market financial products or services to you. • Old Republic Title doesn't jointly market.

Other Important Information

Oregon residents only: We are providing you this notice under state law. We may share your personal information (described on page one) obtained from you or others with non-affiliate service providers with whom we contract, such as notaries and delivery services, in order to process your transactions. You may see what personal information we have collected about you in connection with your transaction (other than personal information related to a claim or legal proceeding). To see your information, please click on "Contact Us" at www.oldrepublictitle.com and submit your written request to the Legal Department. You may see and copy the information at our office or ask us to mail you a copy for a reasonable fee. If you think any information is wrong, you may submit a written request online to correct or delete it. We will let you know what actions we take. If you do not agree with our actions, you may send us a statement.

Affiliates Who May be Delivering This Notice

American First Title & Trust Company	**American Guaranty Title Insurance Company**	**Attorneys' Title Fund Services, LLC**	**Compass Abstract, Inc.**	**eRecording Partners Network, LLC**
Genesis Abstract, LLC	**Guardian Consumer Services, Inc.**	**Kansas City Management Group, LLC**	**L.T. Service Corp.**	**Lenders Inspection Company**
Lex Terrae National Title Services, Inc.	**Lex Terrae, Ltd.**	**Mississippi Valley Title Services Company**	**National Title Agent's Services Company**	**Old Republic Branch Information Services, Inc.**
Old Republic Diversified Services, Inc.	**Old Republic Escrow of Vancouver, Inc.**	**Old Republic Exchange Company**	**Old Republic National Title Insurance Company**	**Old Republic Title and Escrow of Hawaii, Ltd.**
Old Republic Title Co.	**Old Republic Title Company of Conroe**	**Old Republic Title Company of Indiana**	**Old Republic Title Company of Nevada**	**Old Republic Title Company of Oklahoma**
Old Republic Title Company of Oregon	**Old Republic Title Company of St. Louis**	**Old Republic Title Company of Tennessee**	**Old Republic Title Information Concepts**	**Old Republic Title Insurance Agency, Inc.**
Old Republic Title, Ltd.	**Republic Abstract & Settlement , LLC**	**Sentry Abstract Company**	**The Title Company of North Carolina**	**Trident Land Transfer Company, LLC**

Updated: January 1, 2020

Privacy Notice for California Consumers

This Privacy Notice for California Consumers supplements the information contained in the Master Privacy Notice for Old Republic Title and applies to consumers that reside in the State of California. The terms used in this Privacy Notice have the same meaning as the terms defined in the California Consumer Privacy Act ("CCPA").

What Personal Information We Collect

In accordance with the CCPA, personal information is information that identifies, relates to, describes, is capable of being associated with, or could reasonably be linked, directly or indirectly, with a particular consumer or household. Personal information does not include:
Information outside the scope of the CCPA such as:

- Health or medical information covered by the Health Insurance Portability Act of 1996 (HIPAA) and the California Confidentiality of Medical Information Act (CMIA).
- Personal Information covered by the Gramm-Leach-Bliley Act (GLBA), the Fair Credit Reporting Act (FCRA), the California Financial Information Privacy Act (FIPA), and the Driver's Privacy Protection Act of 1994,
- Publicly available information that is available from federal, state, or local government records, and
- De-identified or aggregated consumer information.

Please see the chart below to learn what categories of personal information we may have collected about California consumers within the preceding twelve months, the sources of and business purposes for that collection and the third parties with whom the information is shared, if any.

Category	**Examples**	**Collected**	**Sources**	**Business Purpose for Collection**	**Categories of Third Parties with Whom Information is Shared**
Identifiers	Real name, alias, postal address, unique personal	Yes	Consumers, Lenders, Brokers, Attorneys,	Underwriting or providing other products or services, responding to	Service providers associated with the

	identifier, online identifier, Internet protocol address, email address, account name, social security number, driver's license number, passport number or other similar identifiers		Real Estate Agents, and Title Agents associated with the transaction	policyholder/consumer claims, inquiries or complaints, detecting security incidents, protecting against malicious, deceptive, fraudulent, or illegal activity. Other audit or operational purposes.	transaction for a business purpose
Personal information described in California Customer Records statute (Cal. Civ. Code § 1798.80(e))	Name, signature, social security number, physical characteristics or description, address, telephone number, passport number, driver's license or state identification card number, insurance policy number, education, employment, employment history, bank account number, credit card number, debit card number, or any other financial information, medical	Yes	Consumers, Lenders, Brokers, Attorneys, Real Estate Agents, and Title Agents associated with the transaction	Underwriting or providing other products or services, responding to policyholder/consumer claims, inquiries or complaints, detecting security incidents, protecting against malicious, deceptive, fraudulent, or illegal activity. Other audit or operational purposes.	Service providers associated with the transaction for a business purpose

	information, or health insurance information. "Personal information" does not include publicly available information that is lawfully made available to the general public from federal, state, or local government records.				
Characteristics of protected classifications under California or federal law	Age (40 years or older), race, color, ancestry, national origin, citizenship, religions or creed, marital status, medical condition, physical or mental disability, sex (including gender, gender identity, gender expression, pregnancy or childbirth and related medical conditions), sexual orientation, veteran or military status,	Yes	Consumers, Lenders, Brokers, Attorneys, Real Estate Agents, and Title Agents associated with the transaction	Underwriting or providing other products or services, responding to policyholder/consumer claims, inquiries or complaints. Other audit or operational purposes.	Service providers associated with the transaction for a business purpose

	or genetic information (including familial genetic information).				
Internet or other electronic network activity	Browsing history, search history, information about a consumer's interaction with a website, application, or advertisement.	Yes	Consumers, Lenders, Brokers, Attorneys, Real Estate Agents, and Title Agents associated with the transaction	To provide access to certain online services. To understand the interests of visitors to our online services, to support certain features of our site, for navigation and to display certain features more effectively. Detecting security incidents, protecting against malicious, deceptive, fraudulent, or illegal activity. Other audit or operational purposes.	Not Disclosed
Geolocation data	Geographic tracking data, physical location and movements	Yes	Consumers, Lenders, Brokers, Attorneys, Real Estate Agents, and Title Agents associated with the transaction	To provide access to certain online services. To understand the interests of visitors to our online services, to support certain features of our site, for navigation and to display certain features more effectively. Other audit or operational purposes.	Not Disclosed

What Personal Information We Share and Why We Share It

The CCPA requires us to tell you what categories of personal information we “sell” or “disclose.” We do not sell and will not sell your personal information as that term is commonly understood. We also do not sell and will not sell your personal information, including the personal information of persons under 16 years of age, as that term is defined by the CCPA. When it is necessary for a business purpose, we share or disclose your personal information with a service provider, and we enter a contract with the service provider that limits how the information may be used and requires the service provider to protect the confidentiality of the information.

In the preceding twelve months, we have disclosed the following categories of personal information for the following business purposes. Where the personal information is shared with third parties, as that term is defined in the CCPA, the category of the third party is indicated.

Category	**Examples**	**Business Purpose for Disclosure**	**Categories of Third Parties with Whom Information is Shared**
Identifiers	Real name, alias, postal address, unique personal identifier, online identifier, internet protocol address, email address, account name, social security number, driver’s license number, passport number or other similar identifiers	Underwriting or providing other products or services, responding to policyholder/consumer claims, inquiries or complaints, detecting security incidents, protecting against malicious, deceptive, fraudulent, or illegal activity. Other audit or operational purposes.	Service providers associated with the transaction for a business purpose
Personal information described in California Customer	Name, signature, social security number, physical characteristics or description, address, telephone number, passport number, driver’s license or state	Underwriting or providing other products or services, responding to policyholder/consumer	Service providers associated with the transaction for a business

Records statute (Cal. Civ. Code § 1798.80(e))	identification card number, insurance policy number, education, employment, employment history, bank account number, credit card number, debit card number, or any other financial information, medical information, or health insurance information. "Personal information" does not include publicly available information that is lawfully made available to the general public from federal, state, or local government records.	claims, inquiries or complaints, detecting security incidents, protecting against malicious, deceptive, fraudulent, or illegal activity. Other audit or operational purposes.	purpose
Characteristics of protected classifications under California or federal law	Age (40 years or older), race, color, ancestry, national origin, citizenship, religions or creed, marital status, medical condition, physical or mental disability, sex (including gender, gender identity, gender expression, pregnancy or childbirth and related medical conditions), sexual orientation, veteran or military status, or genetic information (including familial genetic information).	Underwriting or providing other products or services, responding to policyholder/consumer claims, inquiries or complaints. Other audit or operational purposes.	Service providers associated with the transaction for a business purpose
Internet or other electronic network activity	Browsing history, search history, information about a consumer's interaction with a website, application, or advertisement.	To provide access to certain online services. To understand the interests of visitors to our online services, to support certain features of our site, for navigation and to display certain features more effectively. Detecting security incidents, protecting against malicious, deceptive, fraudulent, or illegal activity. Other audit or	Not Disclosed

		operational purposes.	
Geolocation data	Geographic tracking data, physical location and movements	To provide access to certain online services. To understand the interests of visitors to our online services, to support certain features of our site, for navigation and to display certain features more effectively. Other audit or operational purposes.	Not Disclosed

We may also transfer to a third party the personal information of a consumer as an asset that is part of a merger, acquisition, bankruptcy, or other transaction in which the third party assumes control of all or part of the business.

Your Rights and Choices

The CCPA provides California consumers with certain rights regarding their personal information. This chart describes those rights and certain limitations to those rights.

Right	What This Means
Notice	At or before the time your personal information is collected, you will be given written notice of the categories of personal information to be collected and the purposes for which the categories of personal information will be used.
Access	At your verifiable request, but no more than twice in a twelve month period, we shall disclose to you: 1) the categories of personal information we have collected about you, 2) the categories of sources for the personal information we collected about you, 3) our business and commercial purpose for collecting or selling your personal information, 4) the categories of third parties with whom we share your personal information, 5) The specific pieces of information we have collected about you, 6) the categories of personal information disclosed for a business purpose, and 7) If we sold personal information, the categories of personal information sold and the categories of third parties to whom it was sold.

Deletion	You have the right to request that we delete any of your personal information that we collected from you, subject to certain exceptions. Once we receive and verify your request, we will delete (and direct our service providers to delete) your personal information from our records unless an exception applies. We may deny your request if retention of the information is necessary for us or our service providers to: • Complete the transaction for which we collected the personal information, provide a good or service that you requested, take actions reasonably anticipated within the context of our ongoing business relationship with you, or otherwise perform our contract with you. • Detect security incidents, protect against malicious, deceptive, fraudulent, or illegal activity, or prosecute those responsible for such activities. • Debug products to identify and repair errors that impair existing intended functionality. • Exercise free speech, ensure the right of another consumer to exercise their free speech rights, or exercise another right provided for by law. • Comply with the California Electronic Communications Privacy Act (Cal. Penal Code §1546 et seq.) • Engage in public or peer reviewed scientific, historical, or statistical research in the public interest that adheres to all other applicable ethics and privacy laws, when the information's deletion may likely render impossible or seriously impair the research's achievement, if you previously provided informed consent. • Enable solely internal uses that are reasonably aligned with consumer expectations based on your relationship with us. • Comply with a legal obligation. • Make other internal and lawful uses of that information that are compatible with the context in which you provided it. • Or if it is the type of personal information that falls outside the scope of the CCPA, (HIPAA, CIMA, GLBA, or publicly available information)
Opt-Out of Sale Opt-In to Sale	With some limitations, you may direct a business that sells personal information to third parties not to sell the personal information to these third parties. A business may not sell the personal information of persons less than sixteen years of age without their affirmative consent, and in the case of those less than thirteen years of age, the consent must come from a parent.
Non-Discrimination	We will not discriminate against you for exercising your rights under the CCPA. Unless otherwise permitted by the CCPA we will not: • Deny you goods or service • Charge you different prices or rates for goods or services, including through granting discounts or other benefits, or imposing penalties • Provide a different level or quality of goods or services • Suggest that you will receive a different price or rate for goods or services or a different level or quality of goods or services

To Exercise Your Rights

To Opt-out of the Sale of Your Personal Information

The CCPA gives consumers the right to direct a business that sells personal information about the consumer to third parties not to sell the consumer's personal information. We do not sell and will not sell your personal information as that term is commonly understood. We also do not sell and will not sell your personal information, as that term is defined by the CCPA.

To Request Access to or Deletion of Your Personal Information

To exercise your access or deletion rights described above, please submit a verifiable consumer request to us by either: Calling us at 1-855-557-8437 or contacting us through our website CCPA Consumer Request.

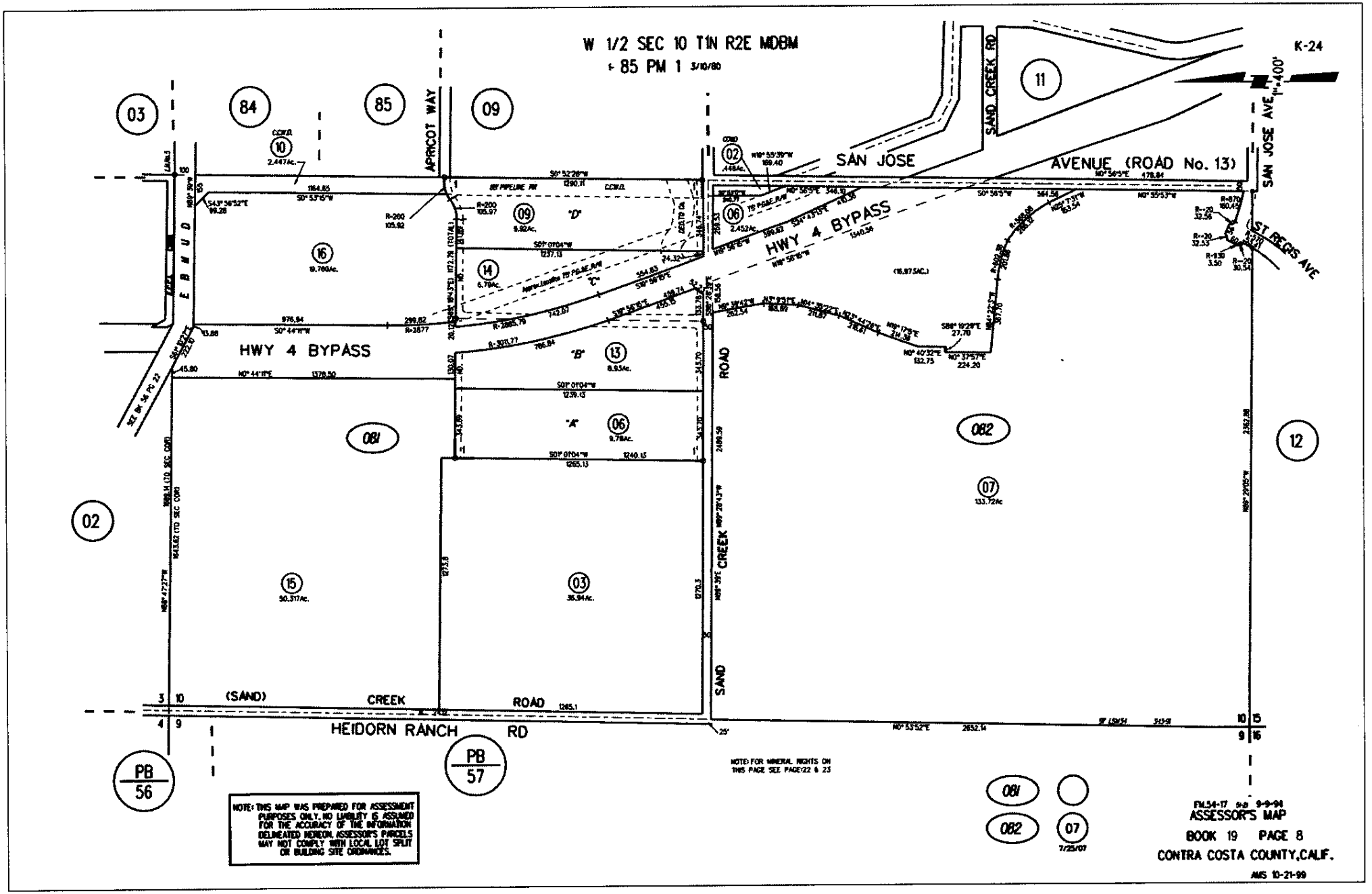
Only you or your representative that you authorize to act on your behalf (Authorized Agent) can make a verifiable consumer request for your personal information. You may also make a request for your minor child. The verifiable request must provide enough information that allows us to reasonably verify you are the person about whom we collected personal information. We cannot respond to your request or provide you with personal information if we cannot verify your identity or authority to make the request and to confirm the personal information relates to you.

We work to respond to a verifiable consumer request within 45 days of its receipt. If we require additional time, we will inform you of the extension period (up to an additional 45 days), and the reason for the extension in writing. If you have an account with us, we will deliver our response to that account. If you do not have an account with us, we will deliver our response by mail or electronically, depending on your preference. The response we provide will also explain any reasons why we cannot comply with a request.

You may only make a consumer request for access twice within a twelve-month period. Any disclosures we provide will apply to the twelve-month period preceding the consumer request's receipt.

Contact Us

If you have any questions regarding our Privacy Notice or practices, please contact us via phone at 1-855-557-8437 or send your written request to: CCPA@oldrepublictitle.com, or Old Republic Title c/o CCPA Consumer Request Group, 275 Battery Street, Suite1500, San Francisco, CA 94111-3334.


W 1/2 SEC 10 T1N R2E MDBM
PM 1 3/10/80
03
84
85
09
11
APRICOT WAY
SAND CREEK RD
SAN JOSE AVE
K-24
SAN JOSE AVENUE (ROAD No. 13)
HWY 4 BYPASS
ST REGIS AVE
EBMUD
SAND CREEK ROAD
SAND CREEK
HEIDORN RANCH RD
(SAND) CREEK ROAD
"A"
"B"
"C"
"D"
081
082
02
12
PB 56
PB 57
NOTE: THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE INFORMATION DELINEATED HEREON. ASSESSOR'S PARCELS MAY NOT COMPLY WITH LOCAL LOT SPLIT OR BUILDING SITE ORDINANCES.
NOTE: FOR MINERAL RIGHTS ON THIS PAGE SEE PAGE 22 & 23
FM 34-17 9-9-94
ASSESSOR'S MAP
BOOK 19 PAGE 8
CONTRA COSTA COUNTY, CALIF.
AMS 10-21-99
7/25/07



APPENDIX C

ENVIRONMENTAL DATA RESOURCES, INC.

Historical Topographic Map Report

Bridlegate

Sand Creek Road and San Jose Ave.

Brentwood, CA 94513

Inquiry Number: 6010925.4

March 16, 2020

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

03/16/20

Site Name:

Bridlegate
Sand Creek Road and San Jos
Brentwood, CA 94513
EDR Inquiry # 6010925.4

Client Name:

Engeo Inc.
2010 Crow Canyon Place
San Ramon, CA 94583
Contact: Brooke Spruit

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Engeo Inc. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# P2020.000.507
Project: Bridle Gate

Coordinates:

Latitude:	37.943197 37° 56' 36" North
Longitude:	-121.746841 -121° 44' 49" West
UTM Zone:	Zone 10 North
UTM X Meters:	610110.99
UTM Y Meters:	4200253.12
Elevation:	205.24' above sea level

Maps Provided:

2012
1978, 1980
1973
1968
1953, 1954
1943
1940
1914, 1916
1912, 1916
1896, 1898

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets



Antioch South
2012
7.5-minute, 24000

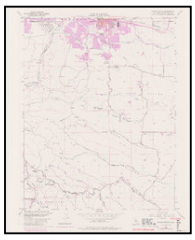


Brentwood
2012
7.5-minute, 24000

1978, 1980 Source Sheets



Brentwood
1978
7.5-minute, 24000
Aerial Photo Revised 1974



Antioch South
1980
7.5-minute, 24000
Aerial Photo Revised 1978

1973 Source Sheets



Antioch South
1973
7.5-minute, 24000
Aerial Photo Revised 1973

1968 Source Sheets



Antioch South
1968
7.5-minute, 24000
Aerial Photo Revised 1968



Brentwood
1968
7.5-minute, 24000
Aerial Photo Revised 1968

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1953, 1954 Source Sheets

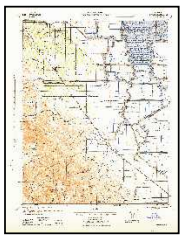


Antioch South
1953
7.5-minute, 24000
Aerial Photo Revised 1949



Brentwood
1954
7.5-minute, 24000
Aerial Photo Revised 1949

1943 Source Sheets

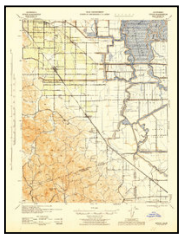


BYRON
1943
15-minute, 62500



Mt. Diablo
1943
15-minute, 62500
Aerial Photo Revised 1937

1940 Source Sheets



Byron
1940
15-minute, 62500
Aerial Photo Revised 1940

1914, 1916 Source Sheets



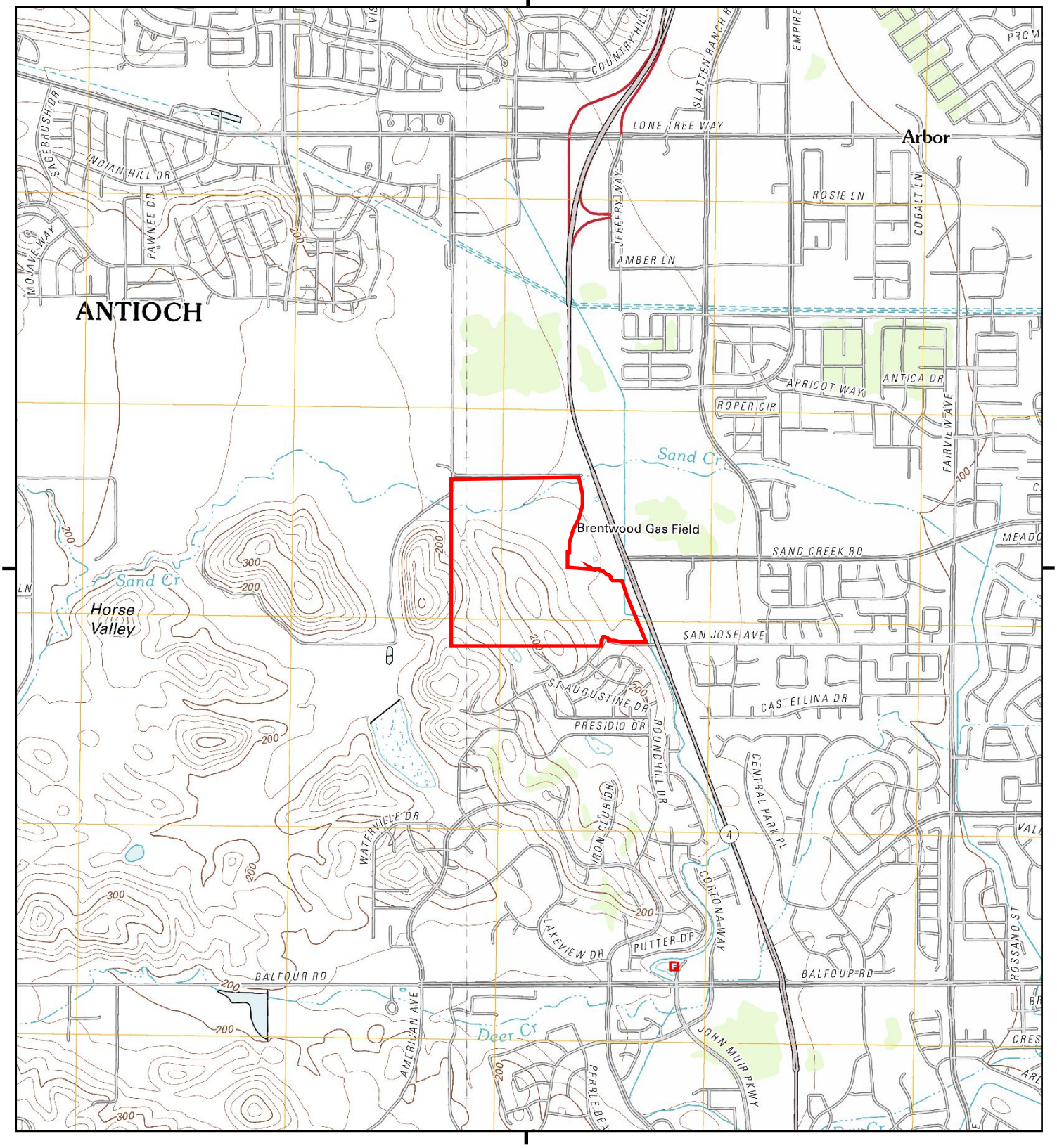
Brentwood
1914
7.5-minute, 31680



Lone Tree Valley
1916
7.5-minute, 31680

Historical Topo Map

2012



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

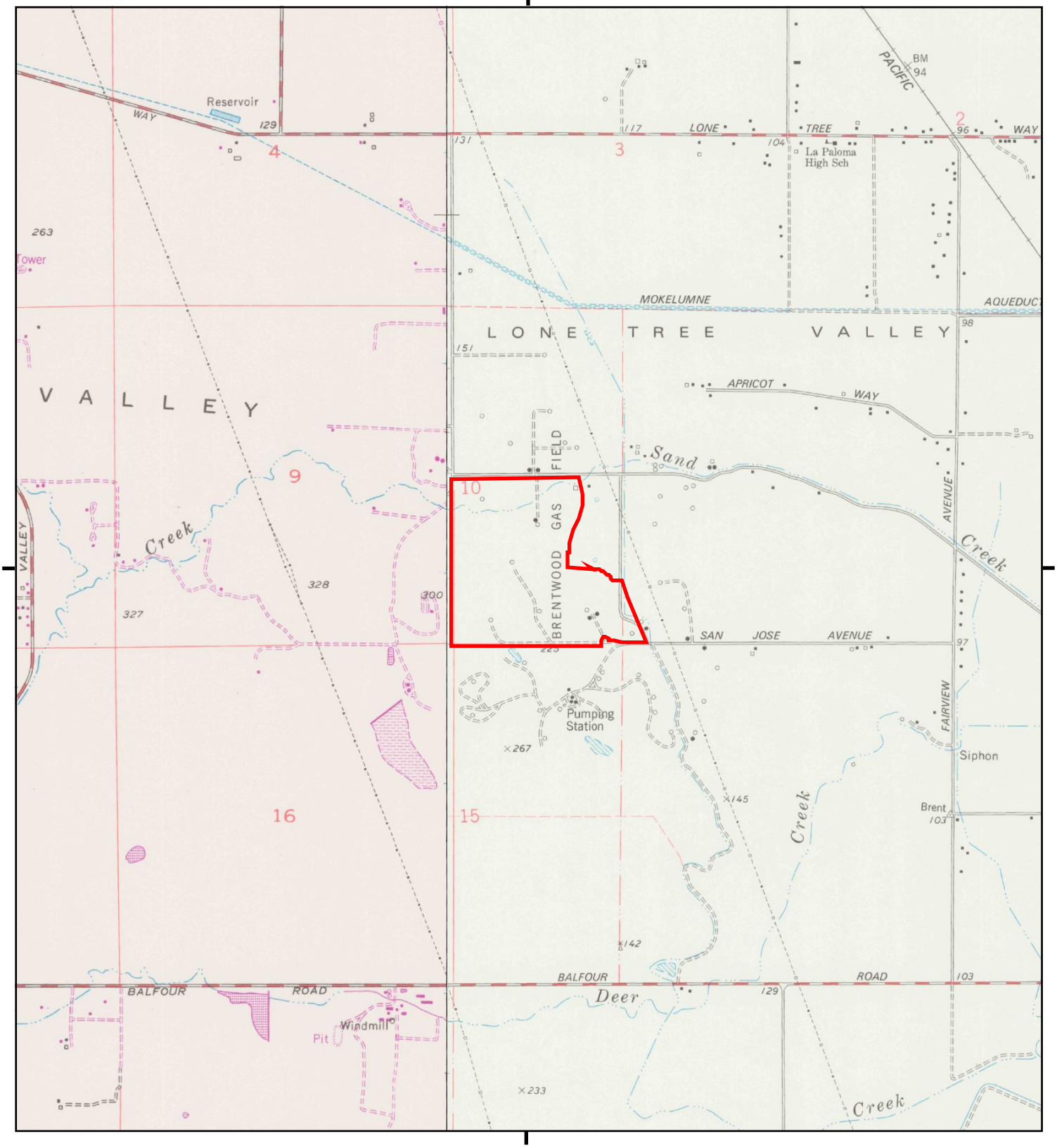
TP, Brentwood, 2012, 7.5-minute
W, Antioch South, 2012, 7.5-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N

Historical Topo Map

1978, 1980



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

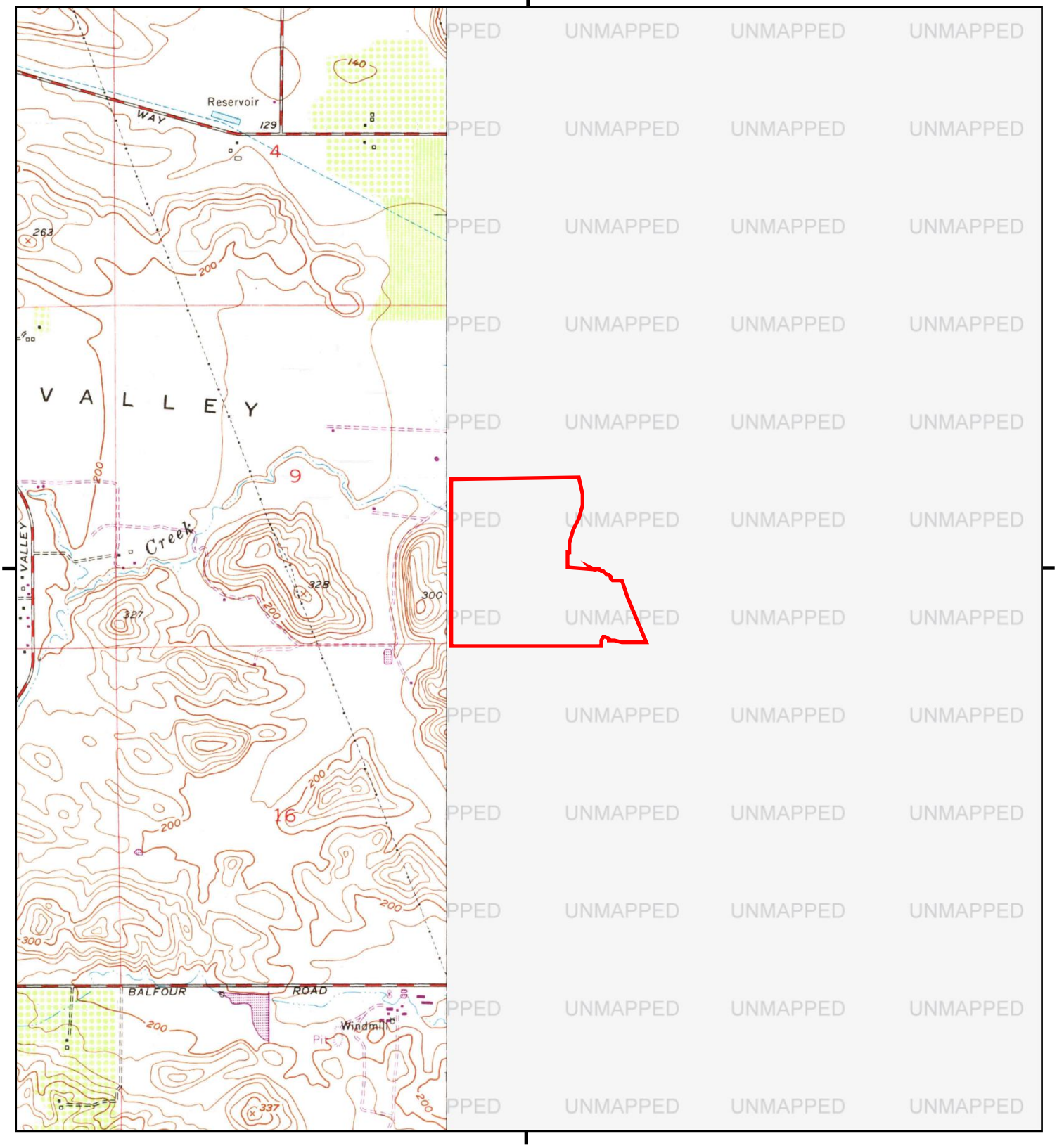
TP, Brentwood, 1978, 7.5-minute
W, Antioch South, 1980, 7.5-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N

Historical Topo Map

1973



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

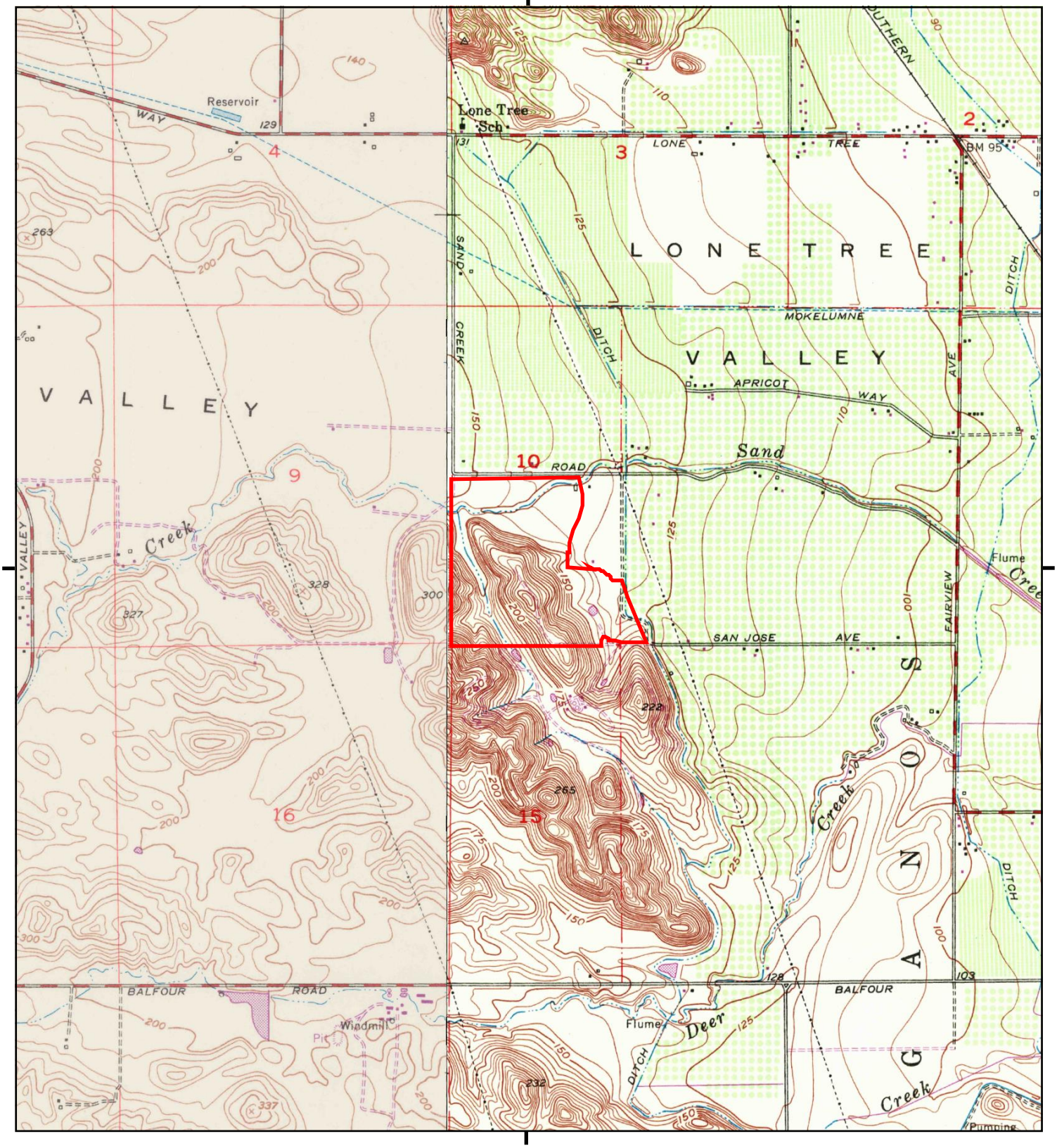
W, Antioch South, 1973, 7.5-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N

Historical Topo Map

1968



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

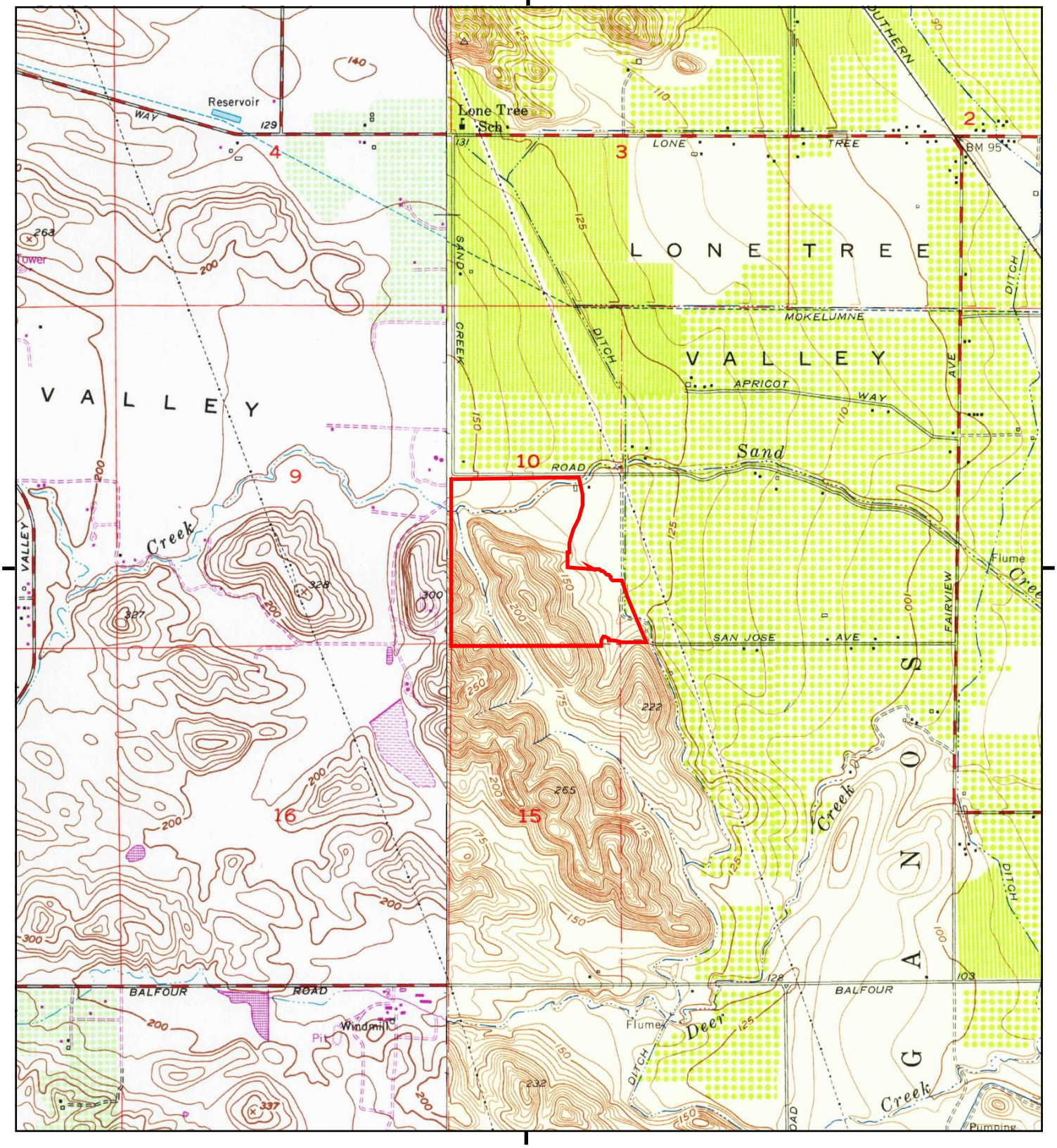
TP, Brentwood, 1968, 7.5-minute
W, Antioch South, 1968, 7.5-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N

Historical Topo Map

1953, 1954



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

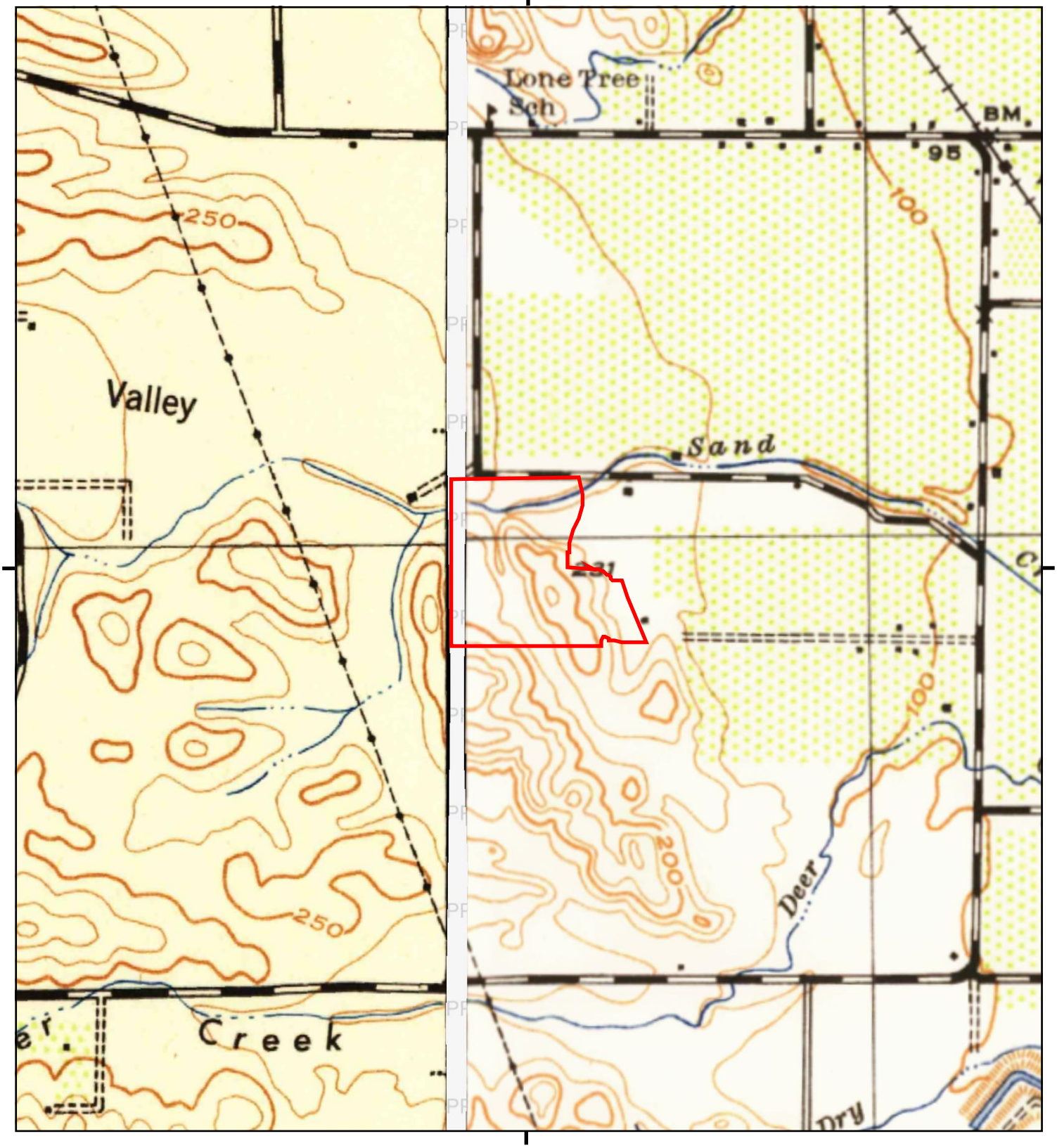
TP, Brentwood, 1954, 7.5-minute
W, Antioch South, 1953, 7.5-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N

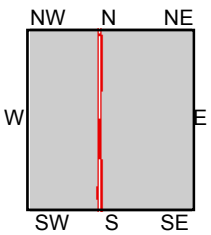
Historical Topo Map

1943



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



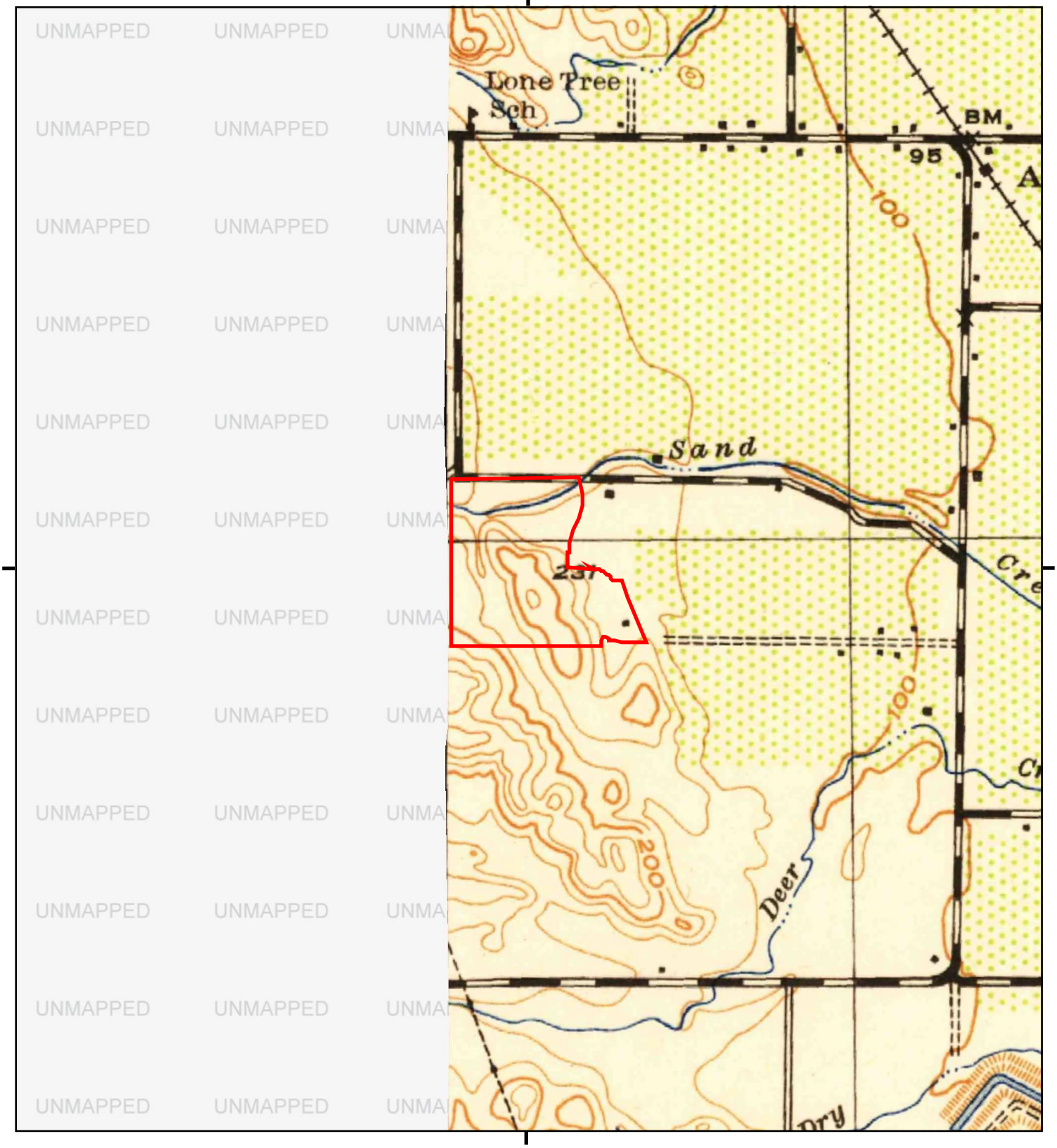
TP, BYRON, 1943, 15-minute
SW, Mt. Diablo, 1943, 15-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N

Historical Topo Map

1940



This report includes information from the following map sheet(s).

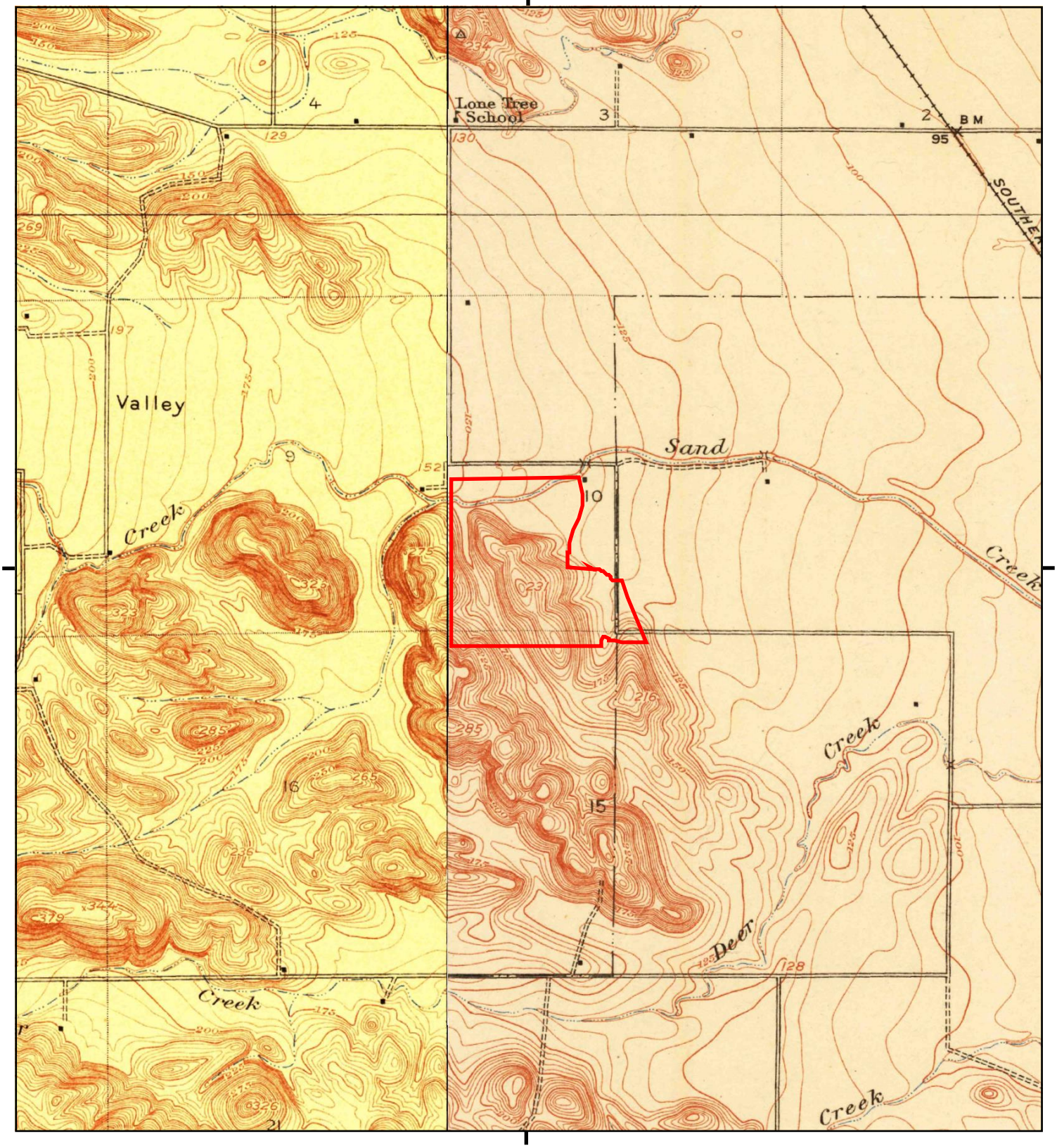
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

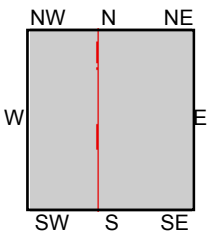
TP, Byron, 1940, 15-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N



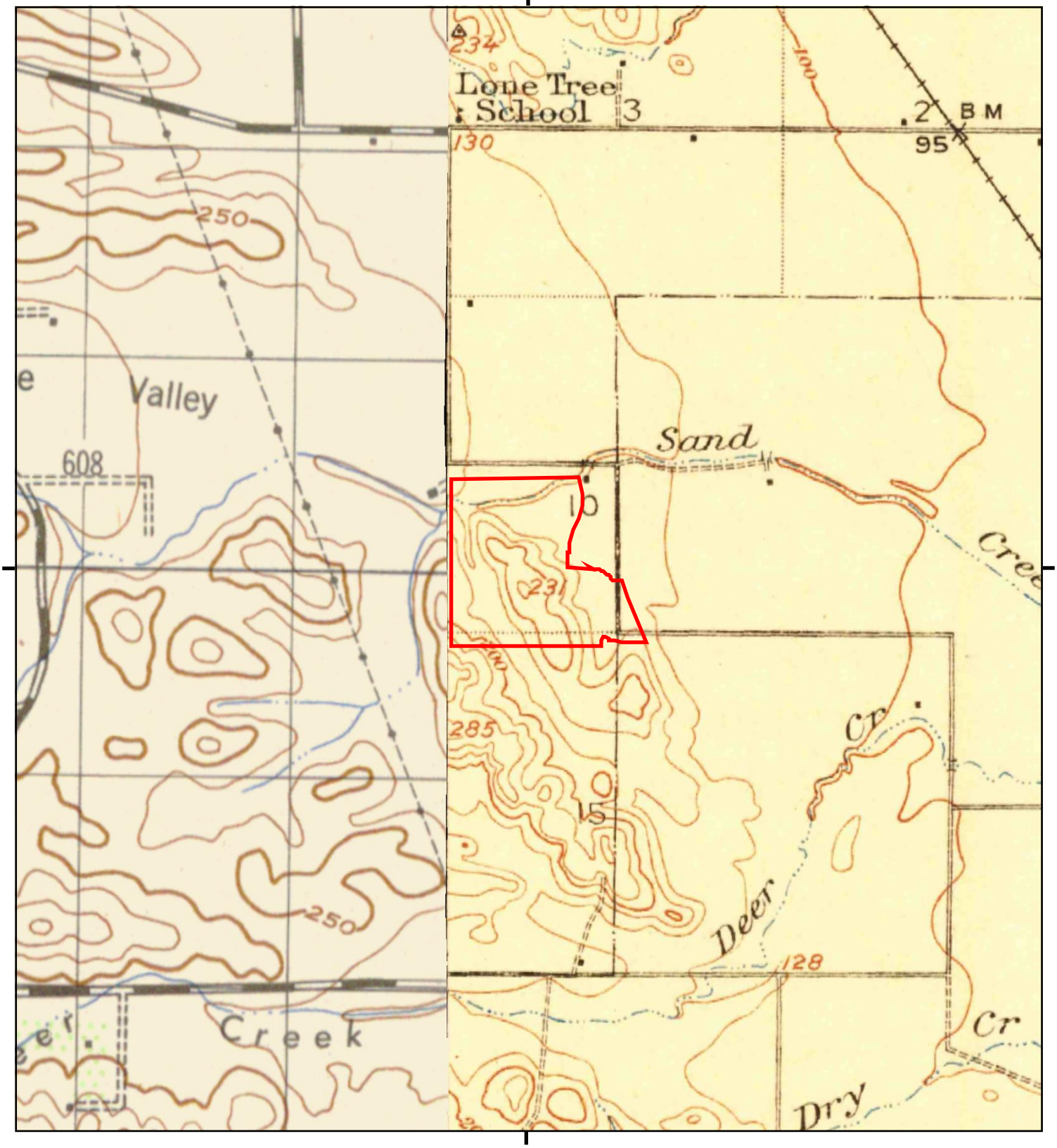
This report includes information from the following map sheet(s).



TP, Brentwood, 1914, 7.5-minute
W, Lone Tree Valley, 1916, 7.5-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N



This report includes information from the following map sheet(s).

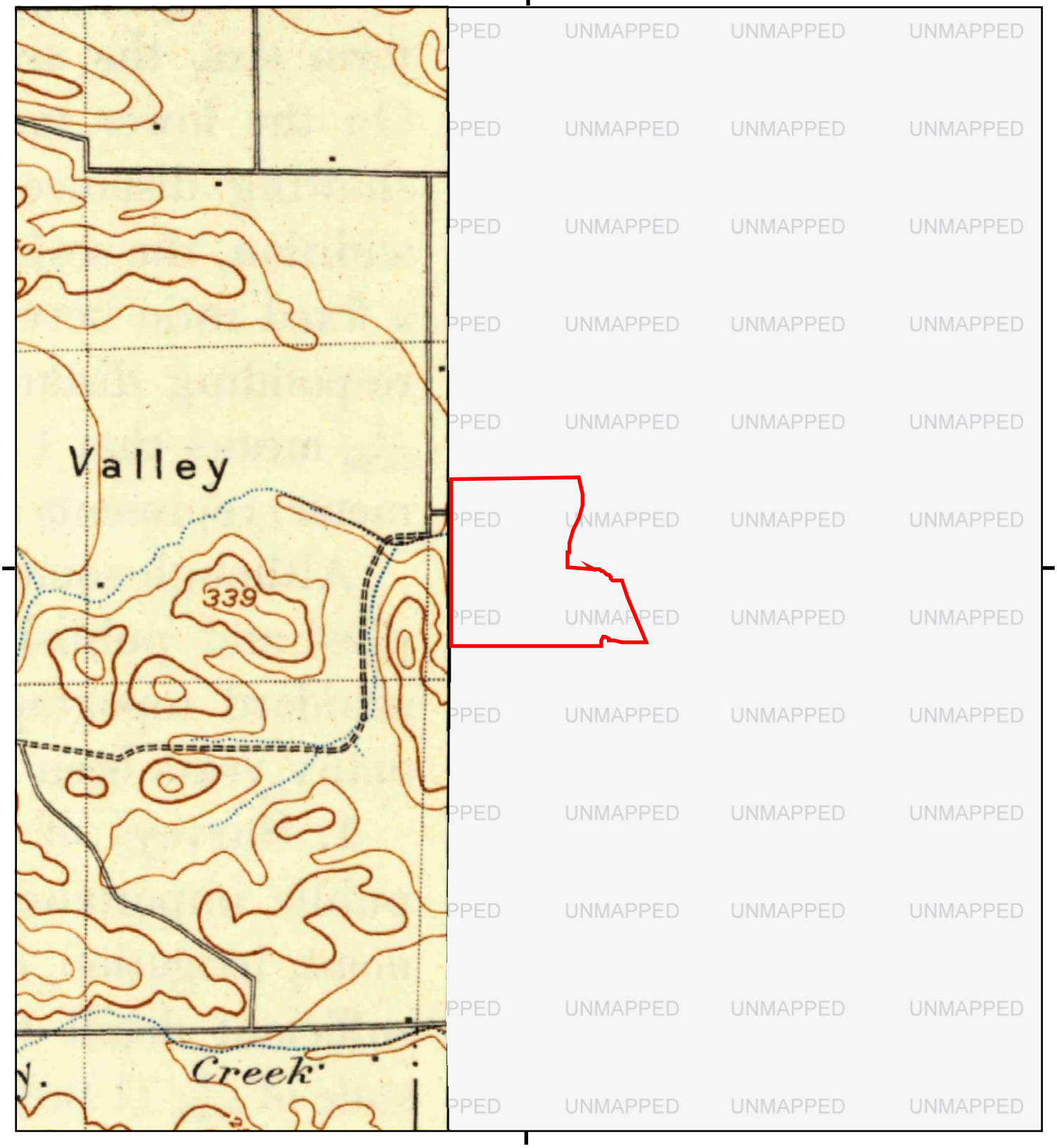
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Byron, 1916, 15-minute
SW, MT. DIABLO, 1912, 15-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

SW, Mt. Diablo, 1896, 15-minute
SW, Mt. Diablo, 1898, 15-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N



APPENDIX D

ENVIRONMENTAL DATA RESOURCES, INC.

Aerial Photo Decade Package

Bridlegate

Sand Creek Road and San Jose Ave.

Brentwood, CA 94513

Inquiry Number: 6010925.8

March 16, 2020

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

03/16/20

Site Name:

Bridlegate
Sand Creek Road and San Jos
Brentwood, CA 94513
EDR Inquiry # 6010925.8

Client Name:

Engeo Inc.
2010 Crow Canyon Place
San Ramon, CA 94583
Contact: Brooke Spruit

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1998	1"=500'	Flight Date: August 22, 1998	USDA
1993	1"=500'	Acquisition Date: June 12, 1993	USGS/DOQQ
1984	1"=500'	Flight Date: June 29, 1984	USDA
1982	1"=500'	Flight Date: July 05, 1982	USDA
1979	1"=500'	Flight Date: August 16, 1979	USDA
1966	1"=500'	Flight Date: May 15, 1966	USDA
1963	1"=500'	Flight Date: July 15, 1963	EDR Proprietary Aerial Viewpoint
1959	1"=500'	Flight Date: July 04, 1959	USDA
1950	1"=500'	Flight Date: March 12, 1950	USDA
1949	1"=500'	Flight Date: October 13, 1949	USGS
1939	1"=500'	Flight Date: June 28, 1939	USDA

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INQUIRY #: 6010925.8

YEAR: 2016

= 500'

N

EDR



INQUIRY #: 6010925.8

YEAR: 2012

= 500'

N

EDR



INQUIRY #: 6010925.8

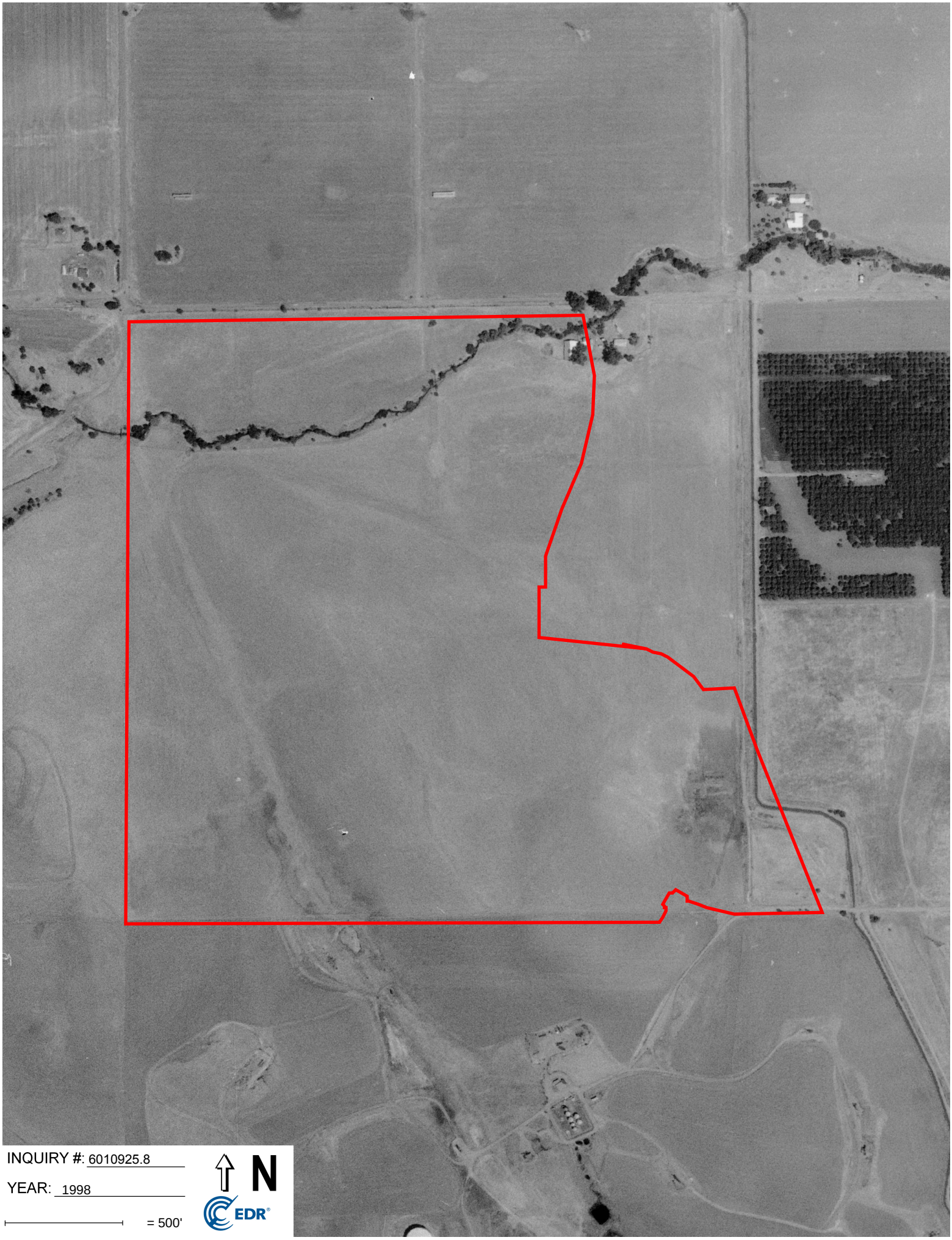
YEAR: 2009

= 500'

N

EDR


INQUIRY #: 6010925.8
YEAR: 2006
= 500'
N
EDR



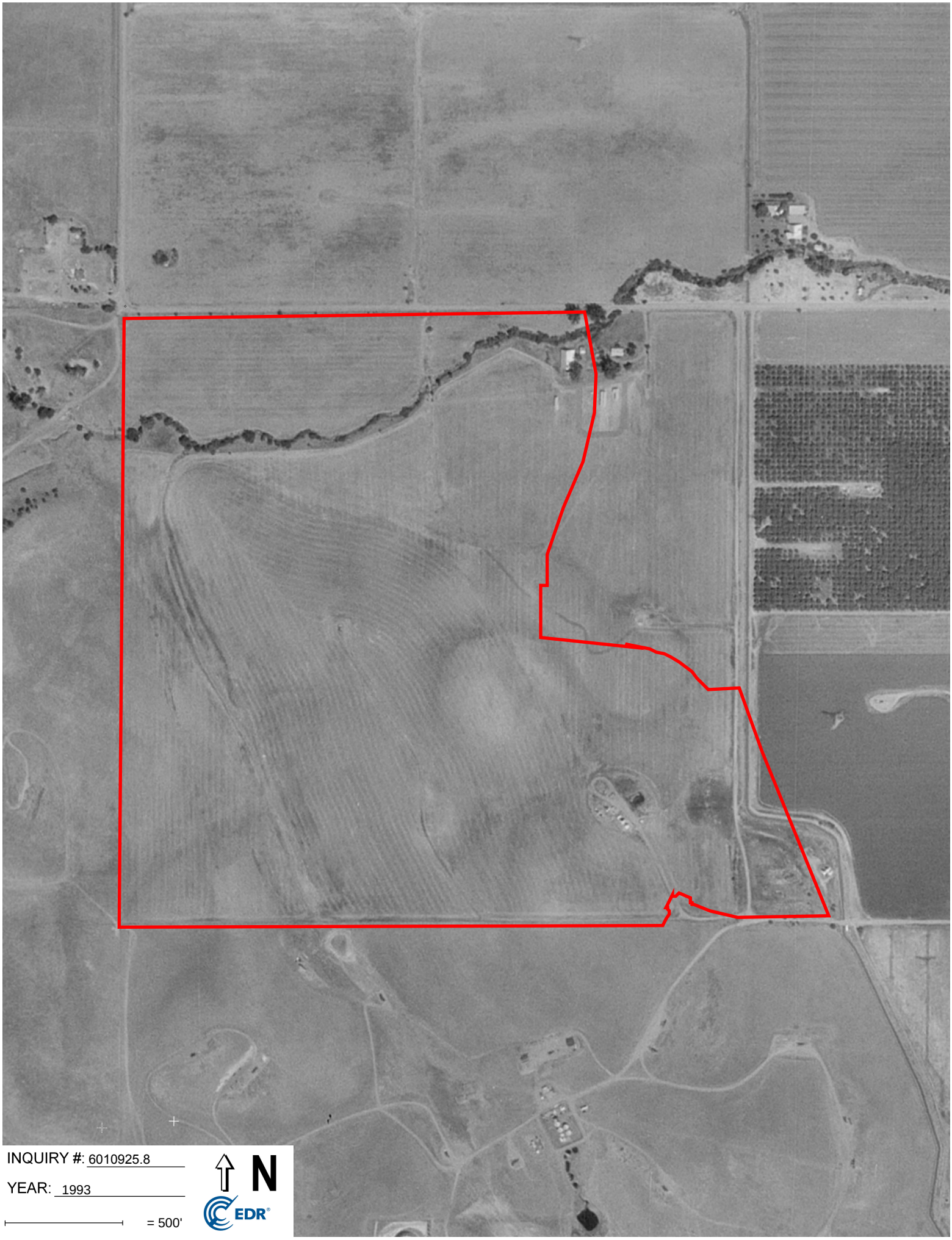
INQUIRY #: 6010925.8

YEAR: 1998

= 500'

N

EDR



INQUIRY #: 6010925.8

YEAR: 1993

= 500'

N

EDR



INQUIRY #: 6010925.8

YEAR: 1984

= 500'

N

EDR



INQUIRY #: 6010925.8

YEAR: 1982

= 500'

N

EDR



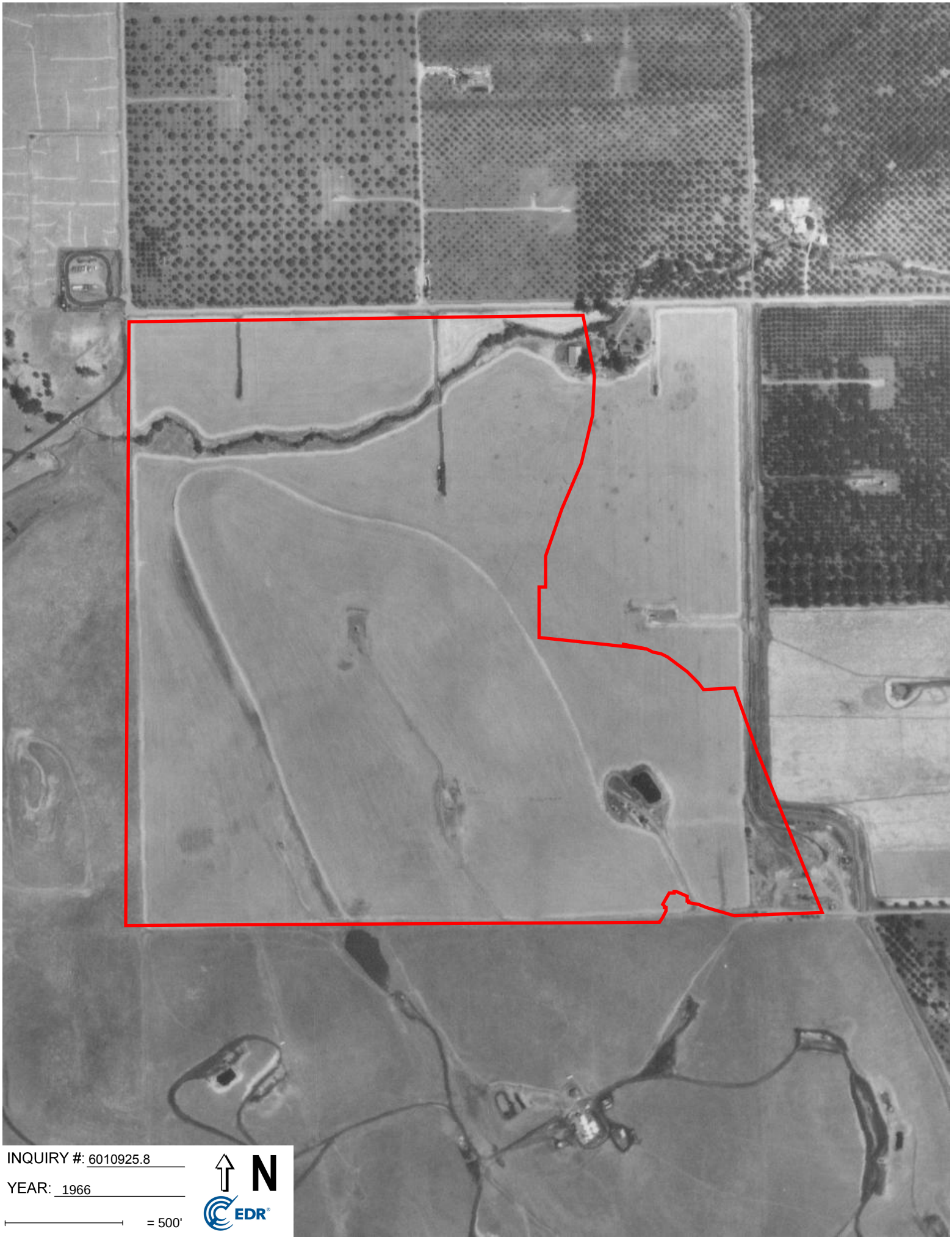
INQUIRY #: 6010925.8

YEAR: 1979

= 500'

N

EDR



INQUIRY #: 6010925.8

YEAR: 1966

= 500'

N

EDR



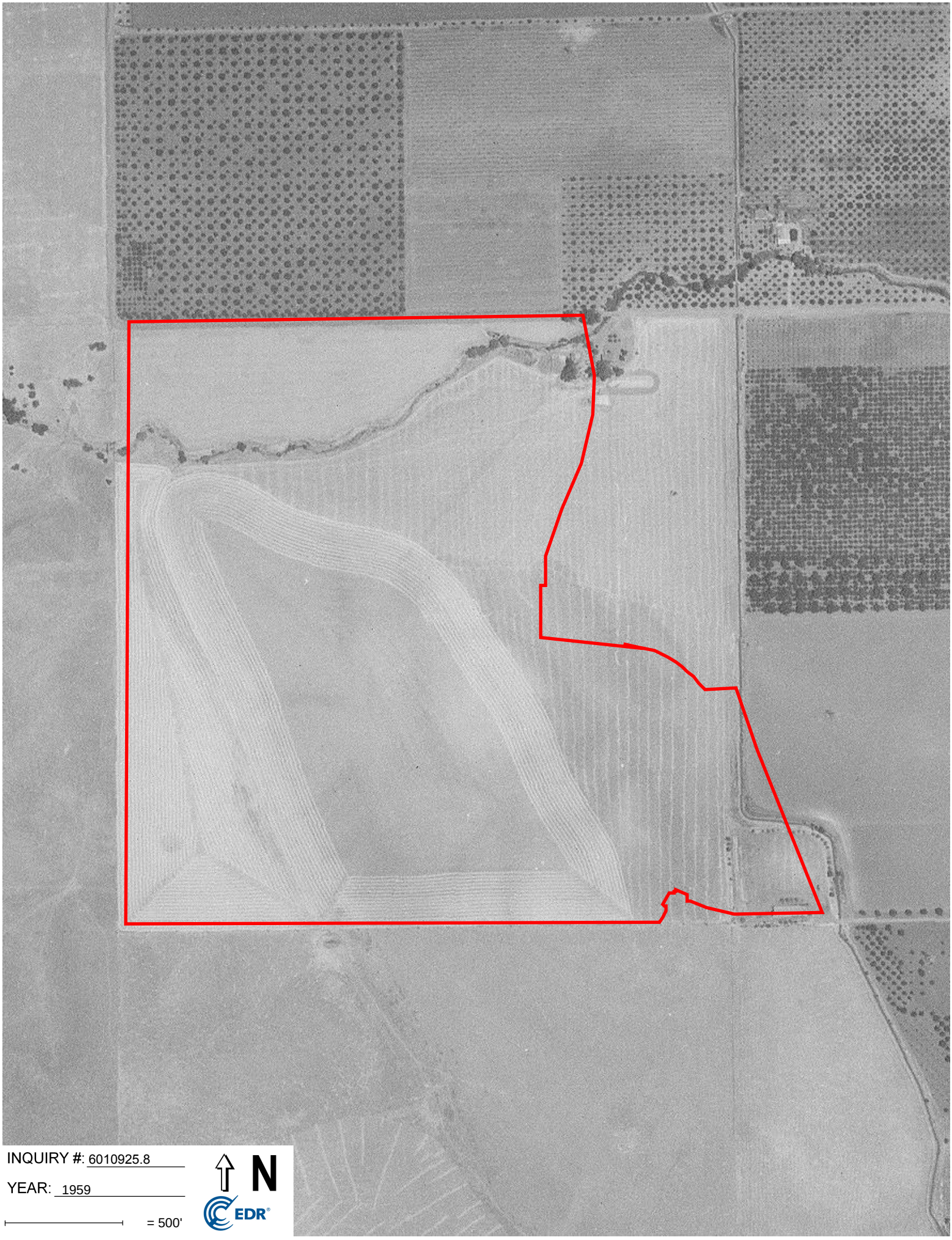
INQUIRY #: 6010925.8

YEAR: 1963

= 500'

N

EDR



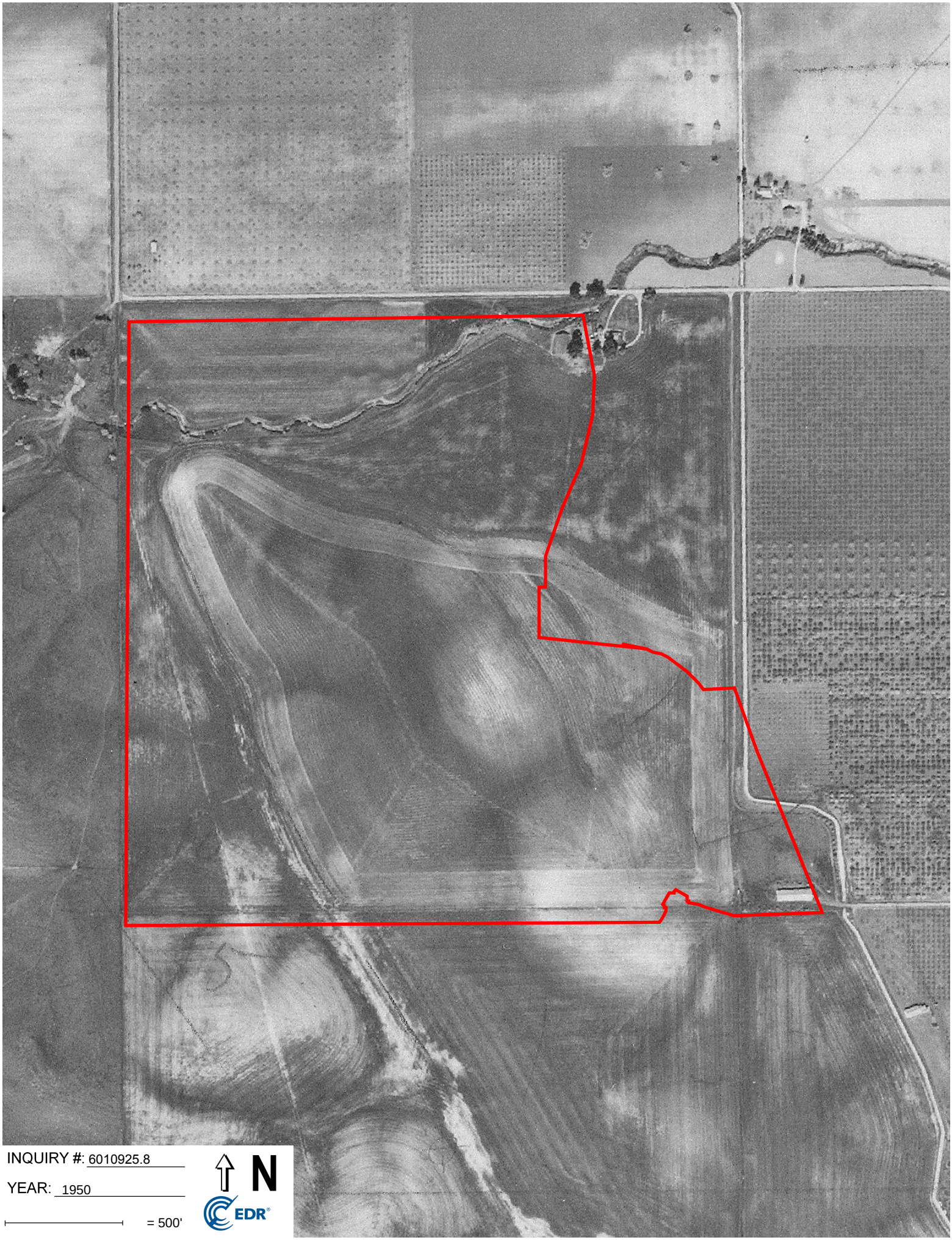
INQUIRY #: 6010925.8

YEAR: 1959

= 500'

N

EDR



INQUIRY #: 6010925.8

YEAR: 1950

= 500'

N

EDR



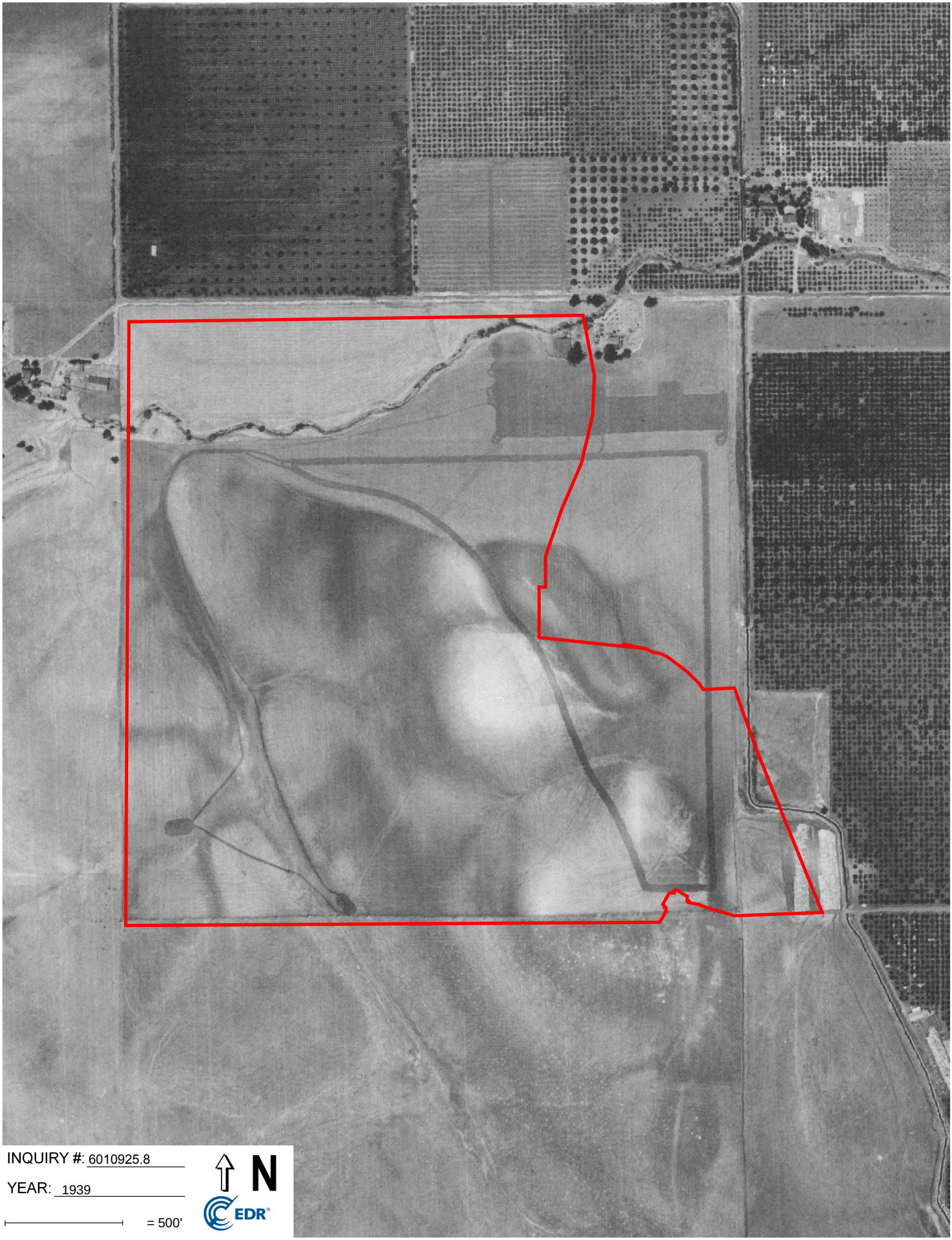
INQUIRY #: 6010925.8

YEAR: 1949

= 500'

N

EDR



INQUIRY #: 6010925.8

YEAR: 1939

= 500'

N

EDR



APPENDIX E

ENVIRONMENTAL DATA RESOURCES, INC.

Sanborn Map Report

Bridlegate

Sand Creek Road and San Jose Ave.

Brentwood, CA 94513

Inquiry Number: 6010925.3

March 16, 2020

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

03/16/20

Site Name:

Bridlegate
Sand Creek Road and San Jos
Brentwood, CA 94513
EDR Inquiry # 6010925.3

Client Name:

Engeo Inc.
2010 Crow Canyon Place
San Ramon, CA 94583
Contact: Brooke Spruit

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The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 76C6-49C8-8D42

PO # P2020.000.507

Project Bridle Gate

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 76C6-49C8-8D42

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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APPENDIX F

ENVIRONMENTAL DATA RESOURCES, INC.

City Directory

Bridlegate
Sand Creek Road and San Jose Ave.
Brentwood, CA 94513

Inquiry Number: 6010925.5
March 18, 2020

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

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with any questions or comments.

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EXECUTIVE SUMMARY

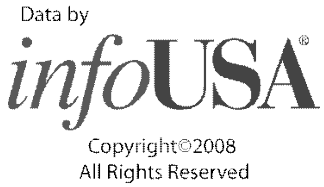
DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2014	☑	☐	EDR Digital Archive
2010	☑	☐	EDR Digital Archive
2005	☑	☐	EDR Digital Archive
2000	☑	☐	EDR Digital Archive
1995	☑	☐	EDR Digital Archive
1992	☑	☐	EDR Digital Archive
1985	☑	☐	Haines Criss-Cross Directory
1980	☐	☐	Haines Criss-Cross Directory
1975	☐	☐	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

Sand Creek Road and San Jose Ave.
Brentwood, CA 94513

Year	*CD Image*	*Source*	
SAN JOSE AVE			
2014	pg A1	EDR Digital Archive	
2010	pg A7	EDR Digital Archive	
2005	pg A13	EDR Digital Archive	
2000	pg A16	EDR Digital Archive	
1995	pg A18	EDR Digital Archive	
1992	pg A20	EDR Digital Archive	
1985	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1980	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1975	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
SAND CREEK RD			
2014	pg A2	EDR Digital Archive	
2010	pg A8	EDR Digital Archive	
2005	pg A14	EDR Digital Archive	
2000	pg A17	EDR Digital Archive	
1995	pg A19	EDR Digital Archive	
1992	pg A21	EDR Digital Archive	
1985	pg A22	Haines Criss-Cross Directory	
1980	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1975	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAN JOSE AVE 2014

1201	ORMAN, ANTHONY J
1203	WILLIAMS, NICHOLE
1205	SANFORD, DON L
1801	ONTRAC COMPUTERS
	YU, VINCENT T
2110	BRENTWOOD UNION SCHOOL DST
	LOMA VISTA SCHOOL PARENTS CLUB
	SUNSHINE HOUSE KID ZONE INC
2171	TREICHELT, KEITH K

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2014

41	ELITE REALTY SERVICES
50	NEW2YOU LABEL XCHANGE
	SAND CREEK
51	DOLLAR TREE INC
71	FENG YONG QING
	MARGOS LITTLE BAVARIA
101	BASIS AT FAME BRENTWD LEARNING
	BRENTWOOD CENTER LMC
	CONTRA COSTA CMNTY COLLEGE DST
	KIRKS APPRAISAL SERVICE
121	BI-BETT ALCOHOL & DRUG PROGRAM
141	PACIFIC GUARANTEE MORTGAGE
	SUMMIT FUNDING INC
151	LIFE ALTERNATIVE INC
181	TESS COMMUNITY FARM KIT INC
190	BRENTWOOD SELF STORAGE
	U-HAUL INTERNATIONAL
191	CENTRAL REWARD
	DAILEY, KATHI
	PURIFYX
	SALE MAKER AUCTION INC
	SAND BUSINESS CENTER
200	SAND CREEK PLAZA
201	BRENTWOOD LENDING GROUP
	CONLEY, MIKE
	ESMERALDA VILLEGA FARMERS
	EXTRA SPACE STORAGE INC
	KEY REALTY BRENTWOOD
2101	VILLA, AMADOR
2111	DURAN, LUIS
	ESGUERRA, MARK
	FLOWERS, ROXANNE
	SILVA, CECILIA
	STANLEY, SEQUOIA
2121	DEPAZ, HERLINDA
	LAFAYETTE, SARAH L
	REUS, SERAFIN S
	RONDAN, JUAN J
2131	ADRIANZA, GLENDA T
	ANDRIANZA, G
	BUCHANAN, SHAUNETTE
	HENDERSON, MARVETTA A
	HERNANDEZ, ANA
	LOZANO, ESTER
	MORTIMER, JANAE M
2141	AGUILAR, FABIOLA
	AGUILAR, N
	DIAZ, MICHELLE B
	TAPIA, ANA
2151	GARCIA, FRANCISCO

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2014 (Cont'd)

2151	LOPEZ, RUBI
	VAZQUEZ, JUAN V
2161	ASTUDILLO, AURORA A
	SIMUEL, MARNISHA
	ZAMORA, BERNICE
2171	COVARRUBIAS, ANGELICA
	OROZCO, MARIA G
	SOLIS, ADELA
	WHITEVACK, ERIKA
2181	DUARTE, BIANCA
	MENDOZA, ANDRAYA
	MORENO, JOSEFINA
	NAJIBULLAH, NADIA
	NOLEN, VERNESSIA L
	SCOTT, JOYCE
	WASHINGTON, DARYLE
2191	ESPERON, RAFAEL
	LARA, FRANCISCO J
	MARTINEZ, CARLOS S
	ORTIZ, REBECCA A
2201	GARCIA, LUIS
	SALINAS, ADALBERTO
2211	BEARD, ANTERNETTE
	CARUTH, MILDRED A
	ORDAZ, LUCILA M
	RAZO, CARLOS
	VELADOR, PEDRO
2221	MADRIGAL, MARIA I
	MARTINEZ, ARTURO
	TRANQUIL TOUCH
	TURNER, SHAUNTELLE
	WILLIAMS, DENISE
2231	HICKS, HENRIETTA L
	LOZANO, BRITTNEY
2240	LOZIER, SHELLEY
2241	FONTINO, KENYA
	JONES, RON
	LARKIN, SARA E
	NOLEN, JEQUESHA L
	ZAVALA, TERESA J
2300	CAFE ASIA
	FARINAS, INGRID
	INGRID A STVENS-FARINAS OD INC
	QING SHI YUAN LLC
2355	BLACK ANGUS STEAK HOUSE
2365	BJS RESTAURANT 517
2375	SLEEP NUMBER BY SELECT COMFORT
2385	RED ROBIN GOURMET BURGERS INC
2400	RALEYS
	TRI COUNTIES BANK

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2014 (Cont'd)

2420 1 BOX CORPORATION
A STEP ABOVE SECURITY INC
ALL OUT SPORTS LEAGUE
AMY ALVIS ESQ
ANDRADE CONSTRUCTION INC
B & M TEAR OFF
BAD DOG CONSTRUCTION
CAMPOS, JAMES M
CASTLE CONSULTING INC
CLEARCUT INVESTIGATIVE SVCS
COMMITTEE TO ELECT ROGER SHORT
CONNECT TEK CALIFORNIA INC
DAMON PRESTON
DAVENPORT TILE
DP TECHNICAL SOLUTIONS
EQUITY FUND LLC
FINV HOLDING CORP
FOGARTY, TIMOTHY M
FRYAR, TEREES
FULLEN SURVEYING & MAPPING INC
GALLOWAY, JOHN M
GALUSHA, LAUREN
GLOBAL SYNDICATED CAPITAL SVCS
GOLD RUN CAPITAL LLC
GOLDEN PALM LANDSCAPE
HARLEM WEST PUBLICATIONS INC
INTERNATIONAL ASSOC HOME ST
JACKSON, PATRICK
JOHNSON, ALLAN C
KACHILDO LLC
KAS MANAGEMENT INC
KHAN, EQBAL A
MCKNIGHT, CRAIG C
METRO PAINTING COMPANY
MOORE, NICOLE
MOORES MOBILE VETERINARY SVCS
MUNNS, JEN
MYWORKTOOLS COM
N VISION INVESTMENTS LLC
NAVACO PROPERTIES LLC
NEMAXX LLC
NESS, STEVE C
OLSON, AVIS M
ONE COMPUTE INC
PACE INSPECTION SERVICES
PREMIER FLOOR CARE INC
QUALITY CLEAN WNDOWS JNTR SVCS
REAL ESTATE SECURED INVESTMENT
RED BOX BUSINESS SOLUTIONS
RODGER CRAIG SLACK

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2014 (Cont'd)

2420	SANDCREEK POOLS INC
	SANDERS RENOIR
	SLACK, LAWRENCE
	SLAY PRVATE INVSTGATIONS ASSOC
	SOUZA, G R
	STAGEDHOMES INC
	SUPERCUTS
	WALLACE NETWORKS
	WESTERN EDITION NEWSPAPERS INC
	WIDJAJA WINATA CORPORATION
	WILSON, ANTHONY
	WOLSNER PUBLISHING CO LLC
	ZHENG, QIN
2421	SANTOS, RON
2426	MCLAUGHLIN, FRANCINE
	WASHINGTON, TINA
2430	DIANA NAILS HAIR
	N-G NAILS
	VISIONS HM STAGING CONSIGNMENT
2440	ALLISON LOCKE STYLES
	CANDLE MOODS
	CUSTOM CARTS & NEIGHBORHD ELEC
	PAYLESS SHOESOURCE INC
	SYLES FOR LESS
2455	CHICOS FAS INC
	COLOR ME MINE
	FUSION 3 SALON
	JOS A BANK CLOTHIERS INC
	MAC AT STREETS OF BRENTWOOD
	STREETS OF BRENTWOOD
	SUBWAY
	WHITE HOUSE BLACK MARKET INC
2460	HOMEGOODS INC
2465	AT&T CORP
	MASSAGE ENVY
	ULTA SALON COSMT FRAGRANCE INC
2470	PARTY CITY CORPORATION
2475	GLAMORA BY SADIA
	REI INC
2480	KELLY-MOORE PAINT COMPANY
2485	DELTA GALLERY OF ARTS INC
	FAT BURGER
	ROCKY MTN CHOCLAT FCTRY INC
	SUNGLASS HUT TRADING LLC
2500	DICKEYS BARBECUE PIT
	MIKADO BRISTRO LLC
	OCCUPANT UNKNOWN,
	STRINGS RESTAURANT GROUP
2505	BANGKOK 101 THAI CUSINE
	BRENTWOOD RESTAURANT

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2014 (Cont'd)

2505	GAMESTOP CORP
	GRAZIES INC
	GYMBOREE
	HOLLISTER OHIO LLC
	JOHNNY GARLICS BRENTWOOD
	JUSTICE 957
	LIMITED TOO
	RUBIOS FRESH MEXICAN GRILL
	TILLYS
	WISHING CRAB
2510	OAKLEY REALTY
	PEARSON PROPERTIES INC
	PRUDENTIAL CALIFORNIA RLTY CO
2520	ROSS STORES INC
2523	ORIGINAL MELS
	SWEET BLISS CUPCAKES
2525	C & C MCKNIGHTS CHOCOLATES LLC
	RAVE MOVIE THEATRES
2530	KRISPY KREME BRENTWOOD 87
	SAND CREEK CROSSING LLC
2535	AEROPOSTALE INC
	DELIAS INC
	MAURICES INCORPORATED
	PACIFIC SUNWEAR CALIFORNIA INC
	PICTURE PEOPLE INC
	ZUMIEZ
2540	ROUND TABLE PIZZA INC
	SAND CREEK DENTAL
2545	CHARMING CHARLIE
	CHILDRENS PLACE RET STORES INC
2555	DSW INC
2565	COLDWATER CREEK INC
	LEN CRAFTER
	LUXOTTICA RETAIL N AMER INC
	SALAD MAKERS
2845	VICTORIAS SECRET STORES LLC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAN JOSE AVE 2010

1201	OCCUPANT UNKNOWN,
1203	OCCUPANT UNKNOWN,
1205	SANFORD, DON L
1801	ONTRAC COMPUTERS
2110	BRENTWOOD UNION SCHOOL DST
	LOMA VISTA SCHOOL PARENTS CLUB
	SUNSHINE HOUSE KID ZONE INC
2171	TREICHELT, KEITH K

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2010

50	ABC MASSAGE
	COMMUNITY COMMUNICATIONS
	G B M
	LAMAR DOUGLAS G ATTORNEY
	PREMIERE CARE MNGMENT SPCLLIST
51	DOLLAR TREE INC
	IN-SHAPE HEALTH CLUBS INC
71	CASUAL CITY
	DOAAS LLC
	FENG YONG QING
	HARB, JALAL
	MARGOS LITTLE BAVARIA
	SPECIALTY FOAM PRODUCTS
101	BASIS AT FAME BRENTWOOD L
	BUDGET BLINDS
	CONTRA COSTA CMNTY COLLEGE DST
	KIRKS APPRAISAL SERVICE
121	CALIFORNIA PCF FEDERAL CR UN
131	TEAM ELITE KELLER WILLIAMS
141	CMG MORTGAGE SERVICES
	PACIFIC GUARANTEE MORTGAGE
151	CISS INC
	CLEARSTONE INC
	LIFE ALTERNATIVE INC
161	FAMILY WORSHIP CENTER
	PURCELL TECHNOLOGIES INC
171	DE SILVA GATES CONSTRUCTION
181	PACIFIC DOCUMENT SERVICES INC
	SECHLER MARK
	SHIELD PRTCTION PUB SAFETY INC
	SPEARHEAD PROTECTION
	TESS COMMUNITY FARM KIT INC
	VISTA NATIONAL LLC
190	BRENTWOOD SELF STORAGE
191	CURRAN CONNORS
	DAILEY KATHI MFT
	DISCOVERY BAY REAL ESTATE
	SAND BUSINESS CENTER
	SCOTT, AMY
200	CLAREMONT HOMES
	TWO N SQUARED INC
201	B A E B PUBLISHING
	BRENTWOOD LENDING GROUP
	DE RUSSO INSURANCE AGENCY
	EDWARD D JONES & CO LTD PARTNR
	EXTRA SPACE STORAGE INC
	GREGORY RNCH OFF INVESTORS INC
	PLATINUM MORTGAGE BROKERS
	PRECISION LEAK DETECTION
2101	VILLA, AMADOR

SAND CREEK RD 2010 (Cont'd)

2121 PIERSON, LAQUISE
REUS, SERAFIN
RONDAN, JUAN J
TEODORO, NANCY
2131 BOBINEAUX, DOMINIQUE
FERGUSON, JOHNAY
HERNANDEZ, ANA
LEVEQUE, ERIN
ROBLES, JOSE
WHITNER, MARIE
WHITNEY, A
2141 AGUILAR, FABIOLA
AGUILAR, N
ROMAN, AMPARO
SILOT, ANGEL
2151 CUEVAS, MARICRUZ
NOLEN, VERNESSIA
RAMIREZ, CARLOS
STREETE, TANIA
2161 COVARRUBIAS, ANGELICA
LEDO, LAVERNE M
2171 OROZCO, MARIA G
ORTIZ, SANDRA
2181 ADRIANZA, GLENDA
ALLEN, BENITA
DUARTE, SABRINA M
ELDRIDGE, FALON
MADRIGAL, KARINA
MILLER, ERIKA
SHUMPERD, AMBER
YOUNG, CHRISTOPHER
2191 ESPERON, RAFAEL
LARA, FRANCISCO J
MARTINEZ, CARLOS S
2200 MANN JASON
PIERCE, VICTORIA
2201 CHAVEZ, SANDY L
CONTRERAS, ROSA M
GARCIA, RAMON S
SOLIS, RAUL S
2211 MAGNO, JESUS
SCOGGINS, BRANDIE
VELADOR, PEDRO
2221 MADRIGAL, MARIA I
MARTINEZ, ARTURO
2231 HICKS, HENRIETTA
MUNOZ, CANDACE A
2240 LEW, RONALD
2241 BROWN, JOHNATAN
DELAROSA, REINA

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2010 (Cont'd)

2241	ESCALANTE, J
	NOLEN, JEQUESHA
	PEREZ, ESMERALDA
2300	HAWAIIAN BARBAQUE
	HIBAR HAWAIIAN BBQ
	INGRID A STVENS-FARINAS OD INC
2385	RED ROBIN GOURMET BURGERS
2400	RALEYS
	TRI COUNTIES BANK
2410	HOME FURNISHINGS GOOD PRICES
2420	A-RATED DOCUMENT ASSISTANCE
	ALL OUT SPORTS LEAGUE
	AMY ALVIS ESQ
	B & M TEAR OFF
	BAYSIDE HOME 3 KNIGHTSEN HOU
	BLACK HAWK BEAUTY
	BOWMAN & SON BUILDERS
	CAMPOS, JAMES M
	CLEAN ENERGY SOLUTIONS INC
	CORREA, MICHAEL A
	CUNNINGHAM, SVONNE E
	DAMON PRESTON
	DAVENPORT TILE
	DAVID OLSEN ELECTRICAL CONTRAC
	DEBBI GALVAN FINCL SVCS LLC
	DELACRUZ, EDWARD J
	DEMEDUK, MICHAEL G
	DEVINE INTERIORS
	DMEB ENTERPRISE INC
	DORRIS CNSLT & CMPT SOLUTIONS
	DP TECHNICAL SOLUTIONS
	DWP ENTERPRISE INC
	EQUITY FUND LLC
	FINV HOLDING CORP
	FULLEN SURVEYING & MAPPING INC
	GLOBAL SYNDICATED CAPITAL SVCS
	GO TRADE CENTRAL
	INTERNATIONAL ASSOC HOME ST
	J V HEATING AND AC
	JACKSON, PATRICK
	JD MERRITT & AFFILIATES INC
	KEN, ROSEMARIE M
	KHAN INVESTMENTS INC
	KHAN, EQBAL A
	KLAUS, GRETCHEN
	KOEHLER, TODD H
	LATENT INVESTIGATIONS
	LOOSLI, EILEY
	LUCAS, JONATHAN D
	MAKING A SCENE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2010 (Cont'd)

2420	MAXCOM DIRECT INC
	METRO PAINTING COMPANY
	MOORES MOBILE VETERINARY SVCS
	MUNNS, DERRIC
	MUNNS, JEN
	MYWORKTOOLS COM
	N VISION INVESTMENTS LLC
	NAVACO PROPERTIES LLC
	NAVALES, EDWARD P
	NELSON, MICHAEL
	NEMAXX LLC
	NORCAL CONSTRUCTION & SOLAR
	PAGNINIS INC
	QUALITY CLEAN WNDOWS JNTR SVCS
	REAL ESTATE SECURED INVESTMENT
	REED PROPERTY RENTALS
	RODGER CRAIG SLACK
	SANDCREEK POOLS INC
	SANDERHOFF, CURTIS L
	SANDERS RENOIR
	SANKALAN SARKAR TECHS
	SKYLASERSCOM
	SLACK, LAWRENCE
	SPRUCE PROPERTY MANAGEMENT
	STAGEDHOMES INC
	STANLEY DARRIN G ASPHALT MAINT
	STENSCHKE SHERRI
	TNT FIRE PROTECTION INC
	TYLERMARIE LTD
	WEST COAST CUSTOM PAINTING
	WESTERN EDITION NEWSPAPERS INC
	WESTONE MORTGAGE CORPORATION
	WHITE NOISE EDUCATIONAL BROADC
	WHITE, LAQUETA S
	WILSON, TANYA
	WOLSNER PUBLISHING CO LLC
	ZAMORA, FRANK J
	ZINELAS LLC
2430	DIANA NAILS HAIR
	VISIONS HM STAGING CONSIGNMENT
2440	ALLISON LOCKE STYLES
	CANDLE MOODS
	CUSTOM CARTS & NEIGHBORHD ELEC
	PREFERRED LENDING SOLUTIONS
	SYLES FOR LESS
2455	CHICOS WOMENS RETAIL
	DLF INNOVATIONS INC
	FUSION 3 SALON
	JOS A BANK
	MAC AT STREETS OF BRENTWOOD

SAND CREEK RD 2010 (Cont'd)

2455 SWAROVSKI
WHITEHOUSE BLACK MARKET
2460 HOMEGOODS INC
2465 AT&T CORP
MASSAGE ENVY
ULTA
2470 PARTY CITY CORPORATION
2475 GLAMORA BY SADIA
REI INC
2480 KELLY-MOORE PAINT COMPANY
2485 AMMEXCOL USA LLC
BANANA REPUBLIC LLC
BREW, CODE
ROCKY MTN CHOCLAT FCTRY INC
SUNGLASS HUT TRADING CORP
2500 MIKADO BRISTRO LLC
OCCUPANT UNKNOWN,
STRINGS RESTAURANT GROUP INC
2505 BANGKOK 101 THAI CUSINE
EXPRESS 2007
FUZIO UNIVERSAL BISTRO
GAMESTOP CORP
GRAZIE GRILL
GYMBOREE
HOLLISTER CO
JUSTICE 957
RUBIOS FRESH MEXICAN GRILL
TILLYS
2510 FREEDOM FUNDING GROUP
OAKLEY REALTY
PRUDENTIAL CALIFORNIA RLTY CO
2520 ROSS STORES INC
2523 ORIGINAL MELS
2525 C & C MCKNIGHTS CHOCOLATES LLC
RAVE MOVIE THEATRES
2530 SEES CANDIES INC
2535 AEROPOSTALE INC
AMERICAN EAGLE OUTFITTERS INC
MAINLAND SKATE AND SURF
PACIFIC SUNWEAR CALIFORNIA INC
PICTURE PEOPLE INC
2545 CHILDRENS PLACE RET STORES INC
TAYLOR ANN LOFT 1642
2555 DSW INC
J JILL GROUP INC
2565 COLDWATER CREEK INC
LUXOTTICA RETAIL N AMER INC
SALAD MAKERS
STREETS OF BRENTWOOD
3623 PEACES OF A DREAM

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAN JOSE AVE 2005

1203 AZAMEY, SAYED Z
1205 HAYES HANDPIECE REPAIR
SANFORD, DON L
1801 CO TECHNOLOGY
GURSON, DOKTOR
INEXPENSIVEDOMAINSCOM LLC
SECURE SERVICES
2051 MOON, STEVE
2110 BRENTWOOD UNION SCH DIST
SUNSHINE HOUSE KID ZONE INC
2171 TREICHELT, KEITH N
2230 MANOWA, MAURICE M

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2005

4	TJ MAXX OF CA LLC
41	MASELLI BROS SHOE REPAIR A GEN
50	CASTRO & ASSOC
	COMMUNITY COMMUNICATIONS
	FURNITURE GALLERY
	G B M
	MAGGANAS DEVELOPMENT CO
	MORTGAGE MASTER HOME FINANCING
	SMOKE STOP
	UNICK MICHAEL G
51	GYM & FITNESS CENTER INC
	IN-SHAPE HEALTH CLUBS INC
71	BT O ENTERPRISES
	LOPEZ, ROSS
	MARGOS LITTLE BAVARIA
	MIAS
	RANDALL, NATHAN
	RHONDAS NATURAL NAILS
	SPECIALTY FOAM PRODUCTS
	TWIN ESCAPES & TREASURES
101	110 DEGREES MEDIA EAST COUNTY
	21ST CENTURY POS SOLUTIONS
	AUTO MOTIVES
	BUDGET BLINDS
	BUDGET BLINDS OF MOUNT DIABLO
	CONTRA COSTA CMNTY COLLEGE DST
	FIRST KEYS MORTGAGE
	GENERATIONS HOME CARE INC
	HARRISON ERIC
	KIRKS APPRAISAL SERVICE
	NORTHSTAR ALLIANCE
	PETLANSKY STEVEN CLARK
	WEST COAST SWIMMING POOL BUILD
141	CITYWIDE FINANCIAL
	OLYMPIA FUNDING
	PACIFIC GUARANTEE MORTGAGE
161	PURCELL TECHNOLOGIES INC
	PURCELL, JAMES
171	DESLVA OLIVER INC
190	BRENTWOOD SELF STORAGE
420	SCHERZER, PHILLIP W
421	LUCAY, BRYAN C
440	WHEELAND, M H
450	BECKSTRAND, DOUGLAS M
520	HARMON, JAMES
521	TAGUE J MICHAEL CONSTRUCTION
	TAGUE, MICHAEL M
531	GAUDINIER, HAZEL G
540	OBRYAN, ANNETTE
541	DIAMOND T TRACTOR SERVICE

SAND CREEK RD 2005 (Cont'd)

541	TROY, JAMES P
2200	NIKKI NAILS & SPA
2300	CHERRY POP PARLOR
	HAWAIIAN BAR BQ
2400	RALEYS
2410	HOME CONCEPT
2420	BLAISE ENGRG & CONSULTING
	CUSTOM CLEANERS
	DAVID OLSEN ELECTRICAL CONTRAC
	GOLDEN PALM LANDSCAPE
	N VISION INVESTMENTS LLC
	PAGNINIS INC
	PRESIDENTIAL FLOOR MAINT LLC
	RODGER CRAIG SLACK
	SANDERS RENOIR
	SANKALAN SARKAR TECHS
	SIGGYS CARPET CLEANING
	TAYLORED SOLUTIONS
	WHITE NOISE EDUCATIONAL BROADC
	WOLSNER PUBLISHING CO
2430	DIANA NAILS HAIR
	PLANET TAN
	SIMON JEWELER
2440	CANDLE MOODS
	MARR MIRAGE
	PLAY AT HOME BILLD & BARSTOOLS
	QUALITY PROPERTIES REAL ESTATE
	SCRAP THAT IDEA
	SHOES 4 KIX
2460	HOMEGOODS INC
2480	KELLY-MOORE PAINT COMPANY
2520	ROSS STORES INC
2530	CHAND, HIMANSHU
	STARBUCKS CORPORATION
2540	DELTA SUBS INC
	TUAZON JHOANNA

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAN JOSE AVE 2000

1203	AKRAMY, NAJIA
1205	ARNOLD, DENISE A
1701	OCCUPANT UNKNOWN,
1801	GOODRICH, JEFF
2171	TREICHELT, KEITH

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2000

29	WIEMKEN, JACKLYN M
41	DELTA PURE WATER INC
48	UECHI RYU KNYKAI KRTE BRNTWOOD
50	BLUE HAVEN POOLS & SPAS
	COMMTEK COMMUNICATIONS INC
	MAGGANAS DEVELOPMENT CO
	TRES JOLIE SALON
	VICTORY BAPTIST CHURCH
	WIEMKEN, JACKLYN M
51	COUNTRY TANS
	UNIVERSAL FAMILY FITNESS INC
71	ABRIE SKIN CARE SALON
	BT O ENTERPRISES
	DRAGON CITY
	KIRBY OF BRENTWOOD
	SPECIALTY FOAM PRODUCTS
101	LUCKY STORES INC (DE)
420	SCHERZER, PHILLIP
421	OCCUPANT UNKNOWN,
430	OCCUPANT UNKNOWN,
431	BARR CONCRETE CONSTRUCTION CO
	BARR, STEPHEN E
440	OCCUPANT UNKNOWN,
441	GRIFFIN, WILLIAM J
450	CORNELIUS, GRANT
520	MASELLI, RONALD V
521	TAGUE J MICHAEL CONSTRUCTION
	TAGUE, MICHAEL
530	BIGLOW, B J
2110	TITONE, JOSEPH N
2200	CASTELLO, VICTOR
2483	MAGGIORA, MELVIN
3623	PEACES OF A DREAM

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAN JOSE AVE 1995

1701	TAMAYO, JEFFREY J
1801	TAMAYO, JEFF
2171	TREICHELT, KEITH

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 1995

41	DELTA PURE WATER INC
50	FIELD OF DREAMS
	GREENS PUBLIC RELATIONS FIRM
	MAGGANAS DEVELOPMENT CO
	UNIVERSAL FAMILY FITNESS INC
71	ABRIE SKIN CARE SALON
	APOLLO CARPET OUTLET
	CASTLE DESIGNS BRIDAL SALON
	SARMENTO LEANNE
101	LUCKY STORES INC
431	BARR CONCRETE CONSTRUCTION CO
521	TAGUE J MICHAEL CONSTRUCTION
3623	CRAFT & TEA SHOPPE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAN JOSE AVE 1992

2171 TREICHELT, KEITH

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 1992

41	EAST COUNTY PIZZA ENTERPRISES
50	GREENS PUBLIC RELATIONS FIRM
	JANA INC
	PACIFIC COMMUNICATIONS ASSOC
51	THRIFTY CORPORATION
71	MARGOS LITTLE BAVARIA
101	LUCKY STORES INC

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

SAND CREEK RD 1985

SAND CRK RD 94513
BRENTWOOD

31	TAGUE MICHAEL	634-6469	4
41	GRIFFIN WM J JR	634-5570	+5
51	RARS CONCRETE CONST	634-8381	2
	BARR S E	634-5595	2
61	XXXX	00	
NO #	BUNDRUM SARA	634-2348	+5
NO #	CABRAL JACK	634-2308	0
NO #	MAGGIORA MELVIN	634-3002	
NO #	PLACENCIA JOE	634-6516	2
NO #	SHELL CO PIPE LINE	634-2180	
NO #	SHELL CO PRODUCTN	634-4822	
NO #	SMELTON FRANK	634-2221	0
NO #	SORGENFREY HARRY	634-3354	
NO #	THORMAHLEN LARRY	634-6093	9
★	3 BUS 11 RES	2 NEW	



APPENDIX G

ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRES (2)

ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE
FOR CLIENT

To evaluate the potential for possible environmentally related impacts and site contamination the following information is requested. This questionnaire is to be completed by the user of the phase one environmental site assessment, or their authorized representative.

PART I

1. Property address and Assessor's Parcel Number (APN):

   West side of State Highway 4 at Sand Creek Road, Brentwood

   APN 019-082-007

2. Current property owner (name, address, voice/fax number):

   West Coast Home Builders, Inc.
   4021 Port Chicago Highway, Concord CA 94520
   925-602-7235

3. Date current property owner assumed title of property:

   1998

4. Current property development/improvements:

   The property is currently undeveloped

5. Past property use, development/improvements:

   Grazing, row crops and oil wells

6. Neighboring property uses:

   Single family homes to the south
   Commercial centers to the east
   Vacant agricultural land to the nort
   vacant open space/grazing land to the west

PART II

1.	Are you aware of any environmental cleanup liens against the *property* that are filed under federal, tribal, local or state law?	☐ Yes	☑ No
2.	Are you aware of any activity and land use limitations, such as engineering controls, land use restrictions, or institutional controls that are in place at the property and/or have been filed or recorded in a registry under federal, tribal, state or local law?	☐ Yes	☑ No
3.	Do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the *property* or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?	☐ Yes	☑ No
4.	If a property transaction is occurring in conjunction with this environmental assessment, does the purchase price of this *property* reasonably reflect the fair market value of the *property*?	☐ Yes	☑ No
5.	If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property?*	☐ Yes	☐ No ☑ N/A
6.	Are you aware of any commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, (a) do you know of specific chemicals that are present or once were present at the *property*? (b) do you know of spills or other chemical releases that have taken place at the *property*? (c) do you know of any environmental cleanups that have taken place at the *property*?	☑ Yes	☐ No
7.	Based on your knowledge and experience related to the *property* are there any obvious indicators that point to the presence or likely presence of contamination at the *property*?	☐ Yes	☑ No

If a "Yes" response was provided to any of the above questions, please provide details below:

There were several oil wells on the property which were owned by Shell Oil and later by Occidental petroleum, The wells were abandoned in the late 1990's and any affected soil was remediated under the oversight of the California Regional Water Quality Control Board which issued a letter of no further action on July 7, 2000

I certify that the information herein is true and correct to the best of my knowledge as of the date signed below.

Name (Printed/Typed): Richard Sestero

Signature: Date: 3/24/20

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ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE
FOR KEY SITE MANAGER

To evaluate the potential for possible environmentally related impacts and site contamination the following information is requested. This questionnaire is to be preferably completed by the current property owner, or owner representative, leasing agent, or other person having good knowledge of the uses and physical characteristics of the property (Key Site Manager).

PART I

1. Property Address/Location and Assessor's Parcel Number (APN):

   West side of State Highway 4 at Sand Creek Road, Brentwood, CA
   APN 019-082-007

2. Current property owner (name, address, voice/fax number):

   West Coast Home Builders, Inc.
   4021 Port Chicago Highway, Concord, CA 94520
   925-671-7711

3. Date current property owner assumed title of property:

   1998

4. Current property development/improvements:

   The property is currently undeveloped

5. Past property use, development/improvements:

   Grazing, row crops and oil wells

6. Neighboring property uses:

   Single family homes to the south
   Commercial Centers to the east
   Agriculture to the north
   Open space and grazing to the west

PART II - The following questions should be answered to the best of your knowledge.

1.	Is/has the *property* or any adjoining property used/been used for industrial purposes?	☐ Yes	☑ No
2.	Has the *property* or any adjoining property been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?	☐ Yes	☑ No
3.	Are there currently, or have there been previously, any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of greater than 5 gal in volume or 50 gal in the aggregate, stored on or used at the *property* or at the facility?	☐ Yes	☑ No
4.	Has undocumented soil been brought onto the property at any time? If yes, estimated quantity is 25,000 cubic yards.	☑ Yes	☐ No
5.	Has soil been brought onto the property that originated from a contaminated site or that is of an unknown origin?	☐ Yes	☑ No
6.	Are there currently, or have there been previously, any pits, ponds, or lagoons located on the *property* in connection with waste treatment or waste disposal?	☐ Yes	☑ No
7.	Is there currently, or has there been previously, any stained soil on the *property*?	☐ Yes	☑ No
8.	Are there currently, or have there been previously, any registered or unregistered storage tanks (above or underground) located on the *property*?	☑ Yes	☐ No
9.	Are there currently, or have there been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the *property* or adjacent to any structure located on the *property*?	☐ Yes	☑ No
10.	Are there currently, or have there been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors?	☐ Yes	☑ No
11.	Are there any domestic, irrigation or monitoring wells on the property?	☐ Yes	☑ No
12.	If the *property* is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?	☐ Yes	☑ No
13.	Have you been informed of the past or current existence of *hazardous substances* or *petroleum products* or environmental violations with respect to the *property* or any facility located on the *property*?	☑ Yes	☐ No
14.	Have there been any *environmental site assessments* of the *property* or facility that indicated the presence of *hazardous substances* or *petroleum products* on, or contamination of, the *property* or recommended further assessment of the *property*?	☐ Yes	☑ No
15.	Have there been any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any *hazardous substance* or *petroleum products* involving the *property*?	☐ Yes	☑ No
16.	Has there been any past agricultural use of the *property*, such as orchards or seed crop cultivation?	☑ Yes	☐ No
17.	Have any *hazardous substances* or *petroleum products*, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried and/or burned on the *property*?	☐ Yes	☑ No
18.	Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?	☐ Yes	☑ No

If a "Yes" response was provided to any of the above questions, please provide details below:

There was about 25,000 cubic yards of clean soil deposited on the property in the northwest quadrant in 2019. It was excess dirt from a residential subdivision which the Owner is developing in the immediate vicinity. There were several oil wells, oil pipelines and a small tank farm on the property which were operated by Shell Oil and later Occidental Petroleum. The tanks and pipelines were removed and the wells were abandoned in the late 1990"s. Groundwater was monitored and cleared and impacted oily dirt was remediated under the oversight of the California Regional Water Quality Control Board which issued letters of no further action on July 7, 2000 and March 29, 2001

I certify that the information herein is true and correct to the best of my knowledge as of the date signed below.

Name (Printed/Typed): Richard Sestero

Signature: Richard Sestero Date: 3/24/20



APPENDIX H

QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONAL

SHAWN MUNGER, CHG
Principal Geologist

EDUCATION

BS, Geology, U.C. Davis, 1985

EXPERIENCE

Years with ENGEO: 31
Years with Other Firms: 0

REGISTRATIONS & CERTIFICATIONS

Certified Hydrogeologist, CA, 413

8 Hour HAZWOPER Training, CA, 160115576014

Professional Geologist, CA, 5810

Certified Environmental Manager, NV, 1332

40 Hour HAZWOPER Training, CA, 100830513934

SPECIALIZATIONS

- Environmental Assessments and Remediation
- Environmental Restoration
- Water Quality Studies
- Water Wells/Hydrogeology

Since joining ENGEO in 1985, Shawn has been managing groundwater supply evaluations, hydrogeologic studies, chemical assessments, Phase I and II Site Assessment projects, UST site investigations, risk based corrective action (RBCA), VOC remediation, and agricultural impact evaluations. He serves as Principal-in-Charge or Project Manager for environmental and hazardous materials projects involving groundwater hydrology, contaminant fate and transport, and remediation. He is Principal-in-Charge of the environmental components of our on-call contracts with the City of Sacramento and the County of Sacramento.

Select Project Experience

14234 Saratoga Sunnyvale Road—Saratoga, CA
Project Geologist. Shawn performed Principal review of ENGEO's environmental documents. This 2.2-acre townhome site is planned for a new multi-family development comprising up to 20 units in 8 buildings. The site immediately borders Saratoga Creek and contains numerous mature trees, many of which are to be saved. Site challenges include shallow groundwater, creek bank stability, and the potential for liquefaction and lateral spreading.

Lenihan Dam Outlet Modification—Los Gatos, CA
Principal Geologist. Shawn provided technical advice, coordination, consultation, and review of ENGEO's documents to provide quality mitigation measures. The findings were presented to SCVWD and it was concluded that the stockpile was sufficient for transportation. This analysis led to significant project budget savings by avoiding removal and disposal at a solid waste disposal facility. The project consisted of a stockpile approximately 6,000 cubic yards that required profiling as requested by Santa Clara Valley Water District before use of as site backfill.

199 River Oaks Parkway—San Jose, CA
Principal in Charge. Shawn provided principal oversight, data analysis, and consultation regarding site characterization, risk evaluation, and demolition observation plans. The project consists of a proposed six-story podium structure with one level to be constructed below grade. The property is a former semiconductor facility that has received conditional closure from the Regional Water Quality Control Board and is approved for construction.

Riverside Avenue Property—Roseville, CA
Principal in Charge. Shawn provided principal oversight of a Phase II Environmental Site Assessments and site

characterization. The project site consists of an active auto sales and service facility. The historic use of the facility for industrial purposes resulted in soil and groundwater impacts beneath the site. The City of Roseville revised its plans for acquiring and redeveloping the site due to the identified soil and groundwater impacts.

1301 Standard Oil Ave—Pittsburg, CA
Principal in Charge. Shawn provided principal oversight of a Phase II Environmental Site Characterization. The property is an abandoned wastewater treatment plant with processing buildings, clarifier tanks, and sludge beds.

Pleasant Hill BART Station—Walnut Creek, CA
Principal in Charge. Shawn provided oversight, data analysis and consultation during the preparation of a Phase II Environmental Site Assessment. The property is an existing BART station that encompasses 20 acres, including the platform/station area, electrical facilities, a parking garage and additional paved parking areas.

County Crossings Property—Antioch, CA
Principal in Charge. Shawn provided environmental consultation and data review with regard to soil and groundwater contamination. Constituents of concern include petroleum hydrocarbons, nitrates and manganese. The approximately 264-acre site includes several former industrial facilities and petroleum pipelines. Soil and groundwater at the site has been impacted with petroleum hydrocarbons, nitrates and manganese. Planned uses include commercial, residential, retail, and a BART-oriented transit village. The center, which is currently in the entitlement phase, is estimated to break ground in 2011.

620 North Ninth Street—San Jose, CA
Principal in Charge. Shawn provided oversight of soil, groundwater and soil gad characterizations, risk evaluations and Remedial Action Plan preparation. Shawn also closely interacted with RWQCB staff to achieve approval for residential development. The property is a former fruit packing plant and food preparation facility. The proposed development consists of a single-family residential subdivision.

Westshore—Richmond, CA
Project Manager. Shawn conducted Phase I and II Site Assessments, risk evaluations and prepared a soil management plan. The property was a former automotive manufacturing plant proposed for a multi-unit condominium development, including a 6-story podium structure to include five residential floors with 269 units and one parking floor.

Mills Ranch—King City, CA
Principal in Charge. Shawn provided principal oversight of Phase I/II Environmental Site Assessments and risk evaluations. The approximate 80-acre property is used for agricultural cultivation and commercial uses. The proposed mixed-use development includes over 400 single-family residential lots.

Select Foods Site/Cross Creek—Hayward, CA
Principal in Charge. Shawn provided principal oversight, consultation, and data analysis. The property was a former processed food facility, a drum recycling business, battery manufacturing operation and a bus assembly plant. Following completion of soil remediation under RWQCB oversight, the property was developed into a single-family residential subdivision.

Arroyo Crossing—Livermore, CA
Principal in Charge. Shawn provided oversight, data analysis and regulatory consultation while ENGEO provided geotechnical and environmental engineering services for this 34-acre site. This former corporation yard and quarry site was developed into a single-family residential subdivision.

Renaissance Square—Concord, CA
Project Manager. Shawn provided consultation, data analysis, and field observation. This former automotive dealership was redeveloped as a five-story multi-family residential structure supported on slab-on-grade foundations, with two levels of below-grade parking. Petroleum hydrocarbon-impacted soil was encountered during excavation of the parking structure, which required characterization and remediation. Soil impacts were attributed to former sumps, USTs and hydraulic lifts.

Union Pacific Railroad Corridor—San Jose, CA
Project Manager. Shawn prepared a Phase I and II Environmental Site Assessment. Work included a site reconnaissance, historical records research and recovery of soil samples with laboratory analysis. Lead impacted soil was identified which required risk evaluation. This former1800 lineal foot section of the former Union Pacific Railroad Corridor was proposed for mixed-use development.

Former SFPP Alignment—Concord, CA
Project Manager. Shawn prepared a Phase I and II Environmental Site Assessment. The site was a former ±6,500-foot corridor formerly occupied by the Southern Pacific Railroad. Kinder Morgan petroleum pipelines existed within an easement along the property. The southern portion of the site was crossed by East Bay Municipal Utilities District water distribution lines and a multi-lane highway overpass. The corridor was developed as a self-storage facility. Work included the recovery of soil and groundwater samples along the SP right of way.

Hercules Property—Hercules, CA
Project Manager. Shawn provided oversight of a Phase I Environmental Site Assessment, site asbestos survey, site characterization, and demolition observation/contaminant assessment. The project area consists of ±167 acres located near and along the southeastern shore of San Pablo Bay in Hercules. The property was once a portion of a 1300-acre manufacturing facility that was operated by DuPont from 1879 to 1913 and Hercules Incorporated from 1913 to 1979. The planned development includes single/multi-family residential development with some commercial components.

Highlands Ranch—Antioch, CA
Principal in Charge. Shawn provided oversight, data analysis, and collaboration with RWQCB personnel. The project site consists of a 140-acre portion of the former Chevron Los Medanos Tank Farm located in Pittsburg, California. The site was historically occupied by 24 crude oil tanks and four wax ponds. Remediation of the crude oil tank and wax pond locations was conducted according to a remedial action plan (RAP) and oversight was provided by the CRWQCB. Remediation was performed over a period of four months and consisted of excavating approximately 110,000 cubic yards of impacted soil and placing the material in windrows for ex-situ bioremediation.



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Appendix D

Prepared for:
Discovery Builders

Prepared By:
Ramboll US Consulting, Inc
San Francisco, California

Date
February 16, 2022

Project Number
1690024750

AIR QUALITY TECHNICAL REPORT AND GREENHOUSE GAS REDUCTION PLAN

BRIDLE GATE

BRENTWOOD, CALIFORNIA



RAMBOLL Bright ideas. Sustainable change.

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Table 4: Project GHG Reduction Measures from Scoping Plan Examples

Table 5: BAAQMD CEQA Thresholds of Significance for HRA

APPENDICES

Appendix A: Supporting Calculations

Table 1: Consumer Product Emission Factor Refinement

Table 2: PG&E Electricity Intensity Factor Derivation

Table 3a: 2026 Mobile Vehicle Emission Factors Inputs

Table 3b: 2030 Mobile Vehicle Emission Factor Inputs

Table 4: Entrained Dust and Silt Loading Emission Factor

Table 5: Details on GHG Reductions from Regulatory and Project Design Features (PDF Inventory)

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Table 7: Electricity and Natural Gas End Use Proportions

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Table 9: Reductions from Electric Vehicle Charging Infrastructure in Single Family Homes

Table 10: Details on GHG Reductions from Alternative Mitigation Measures

Table 11: Summary of Potential Project Features That Were Not Quantified

Appendix B: Health Risk Assessment

Appendix C: CalEEMod® Output Files

ACRONYMS AND ABBREVIATIONS

BAAQMD:	Bay Area Quality Management District
CalEEMod®:	California Emission Estimator Model
CalGreen:	California Green Building Standards
CARB:	California Air Resources Board
CEQA:	California Environmental Quality Act
CEUS:	Commercial End Use Survey
CO_2:	Carbon Dioxide
CO_2e:	Carbon Dioxide Equivalent
DEIR:	Draft Environmental Impact Report
DWR:	Department of Water Resources
EMFAC:	Emissions Factor Model
GHG:	Greenhouse Gas
ISO:	International Organization for Standardization
LED:	Light-emitting Diode
MM:	Mitigation Measure
MT:	Metric Ton
MWELO:	Model Water Efficient Landscape Ordinance
NOx:	Nitrogen Oxides
PDF:	Project Design Feature
PG&E:	Pacific Gas and Electric Company
PM:	Particulate Matter
RASS:	Residential Appliance Saturation Survey
ROG:	Reactive Organic Gases
RPS:	Renewable Portfolio Standard
SB:	Senate Bill
RS:	State Route
TSF:	Thousand Square Feet
VMT:	vehicle miles traveled

1. INTRODUCTION

The City of Brentwood is preparing a revised Draft Environmental Impact Report (DEIR) under the California Environmental Quality Act (CEQA) for the Bridle Gate Project ("Project"). Discovery Builders has requested that Ramboll support the City's consultant in preparing the DEIR by performing air quality and greenhouse gas (GHG) analyses. This technical report will include the following components:

- Criteria air pollutant and GHG operational emissions inventories
- GHG Reduction Plan
- Quantitative health risk assessment (HRA) for construction and qualitative HRA for operations and cumulative impacts

Results will be compared against projected[1] 2030 Bay Area Quality Management District's (BAAQMD's) CEQA Thresholds of Significance for mass emissions in terms of tons per year of nitrogen oxides (NO_x), particulate matter (PM_{10} and $PM_{2.5}$), reactive organic gases (ROG); and metric tons (MT) of carbon dioxide equivalents (CO_2e) per year and for emissions per service population in terms of MT CO_2e per service population per year (consistent with the statewide Senate Bill (SB) 32 GHG target of 40 percent below 1990 emissions by 2030). The GHG Reduction Plan will also describe GHG reduction measures that the Project will include, including example measures described in the California 2030 Scoping Plan Local Actions. The HRA compares the excess lifetime cancer risk and $PM_{2.5}$ concentration from construction and operations to the BAAQMD's thresholds of 10 in one million and 0.3 micrograms per meter cubed ($\mu g/m^3$), respectively, and evaluates cumulative impacts against the cumulative thresholds of 100 in a million and 0.8 $\mu g/m^3$ for cancer and $PM_{2.5}$ concentration, respectively.

Appendix A contains technical emissions calculation tables. **Appendix C** contains the health risk assessment. **Appendix C** contains the CalEEMod® output files.

This report concludes that the Project's criteria pollutant emissions and health risk impacts are less than significant and GHG emissions are less than significant with mitigation.

The construction emissions, odor impacts, carbon monoxide hotspots, and consistency with plans and policies were analyzed by the City's consultant in evaluating a previous, larger iteration of the Project, and are conservative (i.e., an overestimate) for this revised project. Accordingly, they are not reanalyzed in this technical report.

1.1 Project Description and Overview

The Project site is comprised of approximately 135.3 acres located at the western terminus of Sand Creek Road, to the west of State Route (SR) 4 in the city of Brentwood, CA in Contra Costa County. The Project site is bounded by Old San Creek Road to the north, SR 4 to the east, a single-family residential development (Brentwood Hills) to the south, and the edge of the Brentwood Planning Area and the City of Antioch's city limits to the west.

The project site is currently vacant. The Proposed Project would construct a public park and 286 single-family homes. This revised scope of development is significantly smaller in scale

[1] The Bay Area Air Quality Management District is currently in the process of updating its CEQA Guidelines and Thresholds of Significance. *See* https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines. As of January 2022, revised thresholds have not been adopted.

that the previous version of the project evaluated by the City, which included 252 single family homes, 258 multi-family dwelling units, a potential elementary school, and up to 200,000 square feet of commercial development. An alternative to this original project was also evaluated that contemplate 328 single family homes and no elementary school, in combination with the 258 multi-family dwelling units and the commercial development.

2. UNMITIGATED EMISSIONS INVENTORIES

Construction is anticipated to take place from 2021 through 2026, with full buildout achieved in 2026.[2] GHG Emissions representing 2030 were used in the GHG Analysis for comparison against the statewide 2030 emissions reduction target. Criteria air pollutant emissions were quantified for calendar year 2026 to compare to the mass emissions thresholds at the year of full buildout; these emissions would be expected to decrease in future years as vehicle fleets become cleaner. This section describes how emissions were quantified.

2.1 Summary of Existing Conditions Emissions

As noted above, at the time of the Notice of Preparation of the Project DEIR, the Project site was and still remains vacant. The existing land uses are not assumed to emit any GHGs, criteria air pollutants, or toxic air contaminants.

2.2 Proposed One-time Project Emissions

2.2.1 Summary of Construction Emissions

The City's consultant, Raney Planning & Management, Inc. ("Raney"), calculated construction emissions of the previous version of the project, including buildout of the multi-family and commercial portion of the previous project, using the California Emission Estimator Model version 2016.3.2 (CalEEMod®).[3] This assumed construction took place over a period of five years, although if construction occurs in separate phases, construction-related emissions would likely be lower than the levels analyzed. The Project would comply with all BAAQMD rules and regulations, including Basic Construction Mitigation Measures that reduce fugitive dust emissions. Construction emissions for the maximum modeled scenario were below the thresholds of significance for all criteria pollutants. Since the maximum modeled scenario calculated construction emissions for a much larger version of the Project, inclusion of the maximum modeled scenario in the below described analysis is conservative.

Total construction GHG emissions for the maximum scenario modeled by Raney have been annualized over 30 years here to add to the operational ongoing emissions and compare with BAAQMD thresholds. Buildout total GHG emissions are meant to represent the ongoing emissions for a project's lifetime; in order to effect that, construction emissions are typically amortized over an assumed 30- or 40-year project life if added to the operational emissions. Lead agencies may decide to amortize the level of short-term construction emissions over the expected (long-term) operational life of a project. The South Coast Air Quality Management District (SCAQMD) draft GHG guidance recommends amortizing construction emissions over 30 years,[4] while the Sacramento Metropolitan Air Quality Management

[2] Due to the passage of time since this project was first proposed, the construction timeline may be delayed. However, the emissions would continue to decrease in future years as the vehicle fleets and electricity intensity become cleaner.

[3] Since this project was first analysed, CalEEMod® has been updated. However, the schedule and grading area used by Raney would result in overestimates of emissions compared to those that would be calculated using the newer version of CalEEMod®. In addition, the CalEEMod® update did not affect off-road construction equipment emission factors. Therefore, no changes have been made to the construction emissions inventory.

[4] SCAQMD. 2008. Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold. Available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf. Accessed: February 2, 2022.

District (SMAQMD) GHG guidance notes that construction emissions can be amortized of 25 years for commercial buildings or 40 years for residential buildings.[5] The emissions inventory amortizes construction emissions over 30 years, as shown in **Table 1**. The May 2017 BAAQMD CEQA guidance requires construction emissions to be disclosed but does *not* require construction emissions to be added to operational emissions for comparison against thresholds, so the inclusion of amortized construction emissions is conservative.

2.3 Proposed Ongoing Project Emissions

The Project ongoing operational emissions were estimated using CalEEMod® 2020.4.0. The operational emissions are summarized in the tables below and the supporting tables in **Appendix A**, and CalEEMod® outputs are included in **Appendix C**.

2.3.1 Methodology for Emissions Inventories

The emissions inventories are divided by source category to cover the following sources:

1. Area Sources
2. Purchased electricity use not related to water usage
3. Natural gas use
4. Water usage, including purchased electricity use
5. Waste
6. Mobile Sources.

Each source category is discussed separately below.

2.3.1.1 Area Sources

The proposed Project includes area sources such as architectural coatings, consumer products use, natural gas hearth, and landscaping equipment. The Project land uses will employ gasoline and diesel landscaping equipment, and the residences may include natural gas-fired hearths. CalEEMod®'s emissions estimates are based on emission factors for the landscaping equipment from the California Air Resources Board (ARB) OFFROAD2011 model and hearths based on typical activity in Contra Costa County and natural gas emission factors. Consistent with BAAQMD Regulation 6, Rule 3, no wood-burning stoves are allowed. Consumer product emission factors were refined based on the most recent VOC inventory as shown in **Appendix A Table 1.**

2.3.1.2 Purchased Electricity Not Related to Water Use

The Project includes operational emissions associated with purchased electricity for lighting, heating, plug-in appliances, electric vehicle charging, and other uses not associated with water supply, treatment, and distribution. CalEEMod® estimates emissions based on the electricity use and the carbon intensity of electricity.

CalEEMod® provides default electricity intensities based on the type and size of land uses associated with the Project for its climate zone. Version 2020.4.0 incorporates the electricity use rates consistent with 2019 Title 24, Part 6 Building Energy Efficiency Standards ("Title

[5] SMAQMD. 2020. Chapter 6 Greenhouse Gas Emissions. Available at: http://www.airquality.org/LandUseTransportation/Documents/Ch6GHG4-25-2020.pdf. Accessed: February 2, 2022.

24"), which went into effect January 1, 2020. 2019 Title 24 also updates the baseline lighting intensity for all land use subtypes to rely on high-efficiency (e.g., light-emitting diode or LED) lightbulbs.

To estimate GHG emissions from electricity use, Pacific Gas and Electric Company (PG&E) Carbon Dioxide (CO_2) intensity factors were projected for 2030 in place of the default carbon intensity in CalEEMod®. This used the most recently-available historical PG&E data on carbon intensity and percent renewables from 2016 through 2018 to project how the carbon intensity of the electricity would change in 2030. This intensity factor takes into account the State's Renewables Portfolio Standard (RPS) based on SB 100 that requires 60% of electricity to be from renewable sources in 2030. The derivation of this factor is shown in **Table 2 of Appendix A**.

2.3.1.3 Natural Gas

The Project emits GHGs from on-site natural gas combustion. CalEEMod® provides default natural gas intensities based on the type and size of land uses associated with the Project for its climate zone. Version 2020.4.0 incorporates the natural gas use rates consistent with 2019 Title 24, which went into effect January 1, 2020.

2.3.1.4 Water Use, Including Purchased Electricity

Electricity is required to supply, treat, and distribute water and wastewater, and as such, water use is a source of GHG emissions. The water use estimate for the Project is the CalEEMod® default for the Project land uses for Contra Costa County. As with GHG emissions from purchased electricity not related to water use, Ramboll used the PG&E CO_2e intensity factor for 2030, in place of the default energy intensity in CalEEMod®, as discussed in Section 2.3.1.2.

2.3.1.5 Waste

Waste generated by the Project will result in GHG emissions, which was estimated using CalEEMod® using default values and incorporated a reduction due to on-site recycling and composting facilities.

2.3.1.6 Mobile Sources

The Project would generate vehicle trips from residents, vendors, and visitors traveling to and from the site. Emissions were quantified using the Project trip generation rates from the current Traffic Impact Study, and otherwise trip characteristics are CalEEMod® defaults.

CalEEMod® evaluates mobile emissions using CARB's Emission Factors Model for on-road emissions, EMFAC2017. Ramboll estimated updated vehicle fleet mix and emission factors for the Project operational year 2030 using the newer version of the model, EMFAC2021. The updated vehicle fleet mixes and emission factors are presented in **Table 3a and 3b of Appendix A.** The adjusted entrained dust and silt loading emission factor is shown in **Appendix A Table 4.**

2.3.2 Summary of Unmitigated Emissions and Derivation of GHG Threshold

Table 1 shows the unmitigated emissions inventories by source category.[6] Emissions are compared to the criteria air pollutant mass emissions thresholds and the derived GHG thresholds. The City's preferred GHG threshold was derived in the previous version of the DEIR using the following methodology:[7]

> *"The BAAQMD has determined that projects with operational emissions equal to or less than 1,100 MT CO2e/yr or 4.6 MTCO2e [per service population (SP), which is the total residents plus employees] per year would comply with the emission reductions target of 1990 levels by 2020 set forth by AB 32. SB 32 requires that by 2030, statewide emissions be reduced by 40 percent beyond the 2020 reduction target set by AB 32; therefore, in the absence of specific guidance from BAAQMD or the CARB, the City assumes that in order to meet the reduction targets of SB 32, a proposed project would be required to reduce emissions by an additional 40 percent beyond the emissions reductions currently required by BAAQMD for compliance with AB 32. Assuming a 40 percent reduction from current BAAQMD targets would be in compliance with SB 32, a proposed project would be in compliance with SB 32 if the project's emissions did not exceed the following thresholds:*
>
> - *660 MTCO2e/yr; or*
> - *2.76 MTCO2e/SP/yr."*

As shown in **Table 1**, criteria air pollutant emissions are below the BAAQMD thresholds for ROG, NO_x, $PM_{2.5}$, and PM_{10}. Unmitigated GHG emissions exceed the service population threshold by 855 MT CO_2e/year.

[6] Note that construction mass emissions are not recalculated in this report; these are evaluated in the City's original DEIR report. However, as described above, construction emissions have conservatively been amortized and added to the table below to compare with the BAAQMD's GHG threshold.

[7] City of Brentwood. 2020. Bridle Gate Draft EIR, Page 4.1-28. Available at: https://www.brentwoodca.gov/civicax/filebank/blobdload.aspx?BlobID=66944. Accessed: February 2, 2022.

Table 1: Full Buildout Project Unmitigated Emissions

Source Category [a,b]	CO_2e	ROG	NOx	PM_{10}	$PM_{2.5}$
	MT/yr	Ton/yr [lb/day]			
Area	28	2.0 [11]	0.045 [0.25]	0.014 [0.074]	0.014 [0.074]
Purchased Electricity	149	0 [0]	0 [0]	0 [0]	0 [0]
Natural Gas	409	0.041 [0.23]	0.35 [1.9]	0.028 [0.16]	0.028 [0.16]
Water Use	36	0 [0]	0 [0]	0 [0]	0 [0]
Waste Disposed	173	0 [0]	0 [0]	0 [0]	0 [0]
Traffic	2,159	0.90 [4.9]	1.4 [7.5]	1.02 [5.6]	0.27 [1.5]
Annualized Construction [c]	156	n/a	n/a	n/a	n/a
Total	**3,110**	**2.9 [16]**	**1.77 [9.7]**	**1.07 [5.8]**	**0.32 [1.7]**
Threshold	**2.76**	**10 [54]**	**10 [54]**	**15 [82]**	**15 [82]**
Exceedance	**Yes**	**No**	**No**	**No**	**No**
Service Population	**818**	**818**	**818**	**818**	**818**
Emissions per Service Population	3.80	n/a	n/a	n/a	n/a
Further Reductions Needed [d]	**855**	**0**	**0**	**0**	**0**

Notes:
a. Emissions estimated using CalEEMod® version 2020.4.0. The unmitigated CalEEMod® outputs incorporate benefits due to no wood-burning stoves.
b. The inventory includes model refinements to account for the Renewables Portfolio Standard (RPS) requirements for 2030 and updates to use the CARB's most current mobile emissions model EMFAC2021. Appendix A Table 2 shows the derivation for the electricity intensity factor, while Appendix A Tables 3a and 3b show the mobile vehicle emission factors used in the analysis. Consistent with common practice within the BAAQMD, construction has been amortized over the 30-year project life.
c. As noted in Section 2.3, BAAQMD May 2017 CEQA guidelines require construction emissions to be disclosed, but do not require them to be annualized and included in the total operational emissions.
d. The values calculated here may vary from the detailed tables due to rounding.

3. MITIGATED GHG INVENTORY AND GHG REDUCTION PLAN

Ramboll prepared a mitigated GHG inventory that includes regulatory changes, project design features, and mitigation measures that were not included in the unmitigated emissions inventory. The quantified reductions are summarized in **Tables 2** and **3** and shown in more detail in **Appendix A Table 5**.

Since criteria air pollutant emissions were all below thresholds in the unmitigated inventory, emissions reductions that would occur as air quality co-benefits to the GHG reduction measures have conservatively not been quantified; however, if quantified, criteria air pollutant emissions would decrease further beyond those shown above.

3.1 Reductions from Project Design Features Not Included in the Unmitigated GHG Inventory

The mitigated CalEEMod® run reduced emissions due to project features that reduce vehicle miles traveled (VMT) over a default suburban development pattern. Features include traffic calming and an improved pedestrian and bicycle network. These reductions were quantified in CalEEMod® and are shown in **Appendix C.** Ramboll has identified and quantified reductions from additional project design features or regulatory requirements that apply to the Project below.

3.2 Reductions from Regulatory Compliance

The unmitigated GHG inventory includes the benefits of the BAAQMD rule restricting wood-burning stoves in new residential buildings. However, there are other rules and regulations that the Project will comply with that can be quantified as further reductions, described as follows.

3.2.1 Compliance with Title 24, Part 6 Building Energy Efficiency Standards

The GHG emissions inventory energy usage rates as part of compliance with the 2019 Title 24 building code. However, the 2019 Title 24 building code has additional requirements that the project will comply with that can be quantified for a further reduction in GHG emissions.

Zero Net Electricity Low-Rise Residences

The 2019 Title 24 building code requires that any low-rise residential building, defined as a residential building with three habitable stories or less, achieve zero net electricity through improvements in energy efficiency and generation of on-site renewable electricity (e.g., solar photovoltaics) to offset the annual site electricity consumption.[8]

The Project includes single family homes only, which are three stories or less.

Ramboll estimated the emissions reduction associated with zero net electricity low rise residences using the energy usage rates from CalEEMod®. Based on the methodology described above, Ramboll calculated a reduction from compliance with this component of 2019 Title 24 by summing the electricity use from the residential land uses after implementing the reductions from other electricity measures. This can be seen in **Appendix A Table 5.**

[8] California Energy Commission. 2018. 2019 Building Energy Efficiency. Available at: https://ww2.energy.ca.gov/2018publications/CEC-400-2018-020/CEC-400-2018-020-CMF.pdf.

3.2.2 Compliance with AB341 Waste Diversion

California AB341 requires that 75% of all waste generated in the state be diverted away from landfills and towards recycling or compost facilities by 2020.[9] To meet this target, the City of Brentwood's Municipal Code, Chapter 8.16, requires that all property owners maintain a subscription for refuse collection.[10] Refuse collection is provided by the City of Brentwood's Solid Waste Division, which includes green waste collection. Acceptable green wastes include yard clippings, uncooked food, branches, and other forms of yard waste.

By default, CalEEMod® assumes approximately 50% waste diversion based on historical data. Because the Project will be built after 2020 and because of the City of Brentwood's refuse policy, Ramboll estimates that an additional 50% of the waste modeled in CalEEMod® will be diverted as part of the regulatory compliance, for a total of 75% waste diversion. This results in an estimated emissions reduction of 50% of the solid waste emissions shown in **Table 1** above**.**

3.2.3 Water Reduction Requirements

CalEEMod® water use rates are based on defaults from data preceding California's recent droughts. Several regulatory requirements will effectively reduce water use, as described below.

Water Efficient/Drought Tolerant Landscaping

The California Department of Water Resources (DWR) implements the Model Water Efficient Landscape Ordinance (MWELO) to save water by efficient landscape design, installation, and maintenance. The statewide MWELO was updated in 2015 to improve landscape irrigation water savings.[11] Section 17.630.010 of the Brentwood Municipal Code adopts the current MWELO. This is estimated to reduce outdoor water use by 20 percent compared to CalEEMod® defaults.[12] This reduction is included in the CalEEMod® output files in **Appendix C.**

Low-Flow Fixtures

The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CalGreen Building Standard (CalGreen), and establishes voluntary and mandatory standards pertaining to the planning and design of sustainable site development, energy efficiency, water conservation, material conservation, and interior air quality. Like Part 6 of Title 24, the CalGreen standards are periodically updated, with increasing energy savings and efficiencies associated with each code update. CalEEMod® defaults from 2008 have not been updated to incorporate the CalGreen requirements from 2010, 2013, 2016, or 2019. The Project will comply with the CalGreen Standards, which will require a 20 percent

[9] California State Assembly. 2011. Assembly Bill No. 341. Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120AB341. Accessed: February 2, 2022.

[10] City of Brentwood Municipal Code. 8.00.030 Unlawful Activities. Available at: http://qcode.us/codes/brentwood/?view=desktop&topic=8-8_00-8_00_030. Accessed: July 13, 2020.

[11] CA DWR. 2020. MWELO. Available at: https://water.ca.gov/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency/Model-Water-Efficient-Landscape-Ordinance. Accessed: February 2, 2022.

[12] Hartin, J.S., et al. 2018. UC ANR research and education influences landscape water conservation and public policy. Available at: https://www.researchgate.net/publication/331334650_UC_ANR_research_and_education_influences_landscape_water_conservation_and_public_policy. DOI: 10.3733/ca.2018a0041. Accessed: February 2, 2022.

reduction in indoor potable water use through the use of water saving fixtures and or flow restrictors.[13] This reduction is shown in **Appendix A Table 6.**

3.2.4 Summary of GHG Reductions from Regulatory and Project Design Features

Table 2 shows the reductions in GHG emissions from project design features and regulatory compliance by measure. **Table 5** of **Appendix A** shows further details on the background, assumptions, and specifies which of these measures are Scoping Plan Local Actions. Note that the 2017 Scoping Plan describes these as "potential actions that could be undertaken at a local level to support the State's climate goals…This appendix should be viewed as a general reference document. It should not be interpreted as official guidance or as dictating requirements for a city or county in addressing GHGs in its General Plan or for local project CEQA mitigation. It does not replace or modify existing or future laws, ordinances, regulations, or standards adopted by a regulatory entity and may therefore include examples of local actions that are currently, or may become, mandatory."[14]

Table 2: GHG Reductions from Regulatory and Project Design Features

Source Category	Reduction Description	Reduction [a] (MT CO_2e/year)
Energy	Zero Net Electricity Low-Rise Residences [b]	146
Mobile	Traffic Calming & Connectivity [a]	103
Waste	Institute Recycling & Composting Services [b]	86
Water	Water Efficient/Drought Tolerant Landscaping [a]	0.8
Water	Low-Flow Fixtures [b]	1.3
Total Reduction from Regulatory Compliance and Project Design Features		**338**
Remaining Emissions [c]		**2,772**
Further Reductions Needed [c]		**517**

Notes:
a. Quantified using CalEEMod® version 2020.4.0. Outputs are in Appendix C.
b. Calculations are shown in Appendix A.
c. This is the remaining emissions and reductions needed after applying the reductions from regulatory compliance and project design features to the unmitigated inventory.

[13] CSBC. 2010. 2010 California Green Building Standards. 4.303.1. Available at: https://www.ladbs.org/docs/default-source/publications/misc-publications/2010-ca-green-building-standards-code.pdf?sfvrsn=11. Accessed: February 2, 2022.

[14] CARB. 2017. 2017 Scoping Plan Appendix B: Local Actions. Available at: https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/2030sp_appb_localaction_final.pdf Accessed: February 2, 2022.

3.3 Reductions from Mitigation Measures

As shown above, after incorporation of regulatory measures and project design features, the GHG inventory exceeds the BAAQMD threshold by 517 $MTCO_2e$/year. Therefore, the following Mitigation Measures (MM) have been proposed:

- **MM GHG-1:** Prior to the issuance of the first building permit for any individual development within the project site, the developer shall submit a GHG Reduction Plan to the City of Brentwood that demonstrates a fair-share reduction of GHG emissions to the satisfaction of the City towards project-wide emissions reduction goals through incorporation of on-site or off-site emissions reductions measures. The GHG Reduction Plan shall present quantification of the efficacy of all proposed emissions reductions measures, as a means of demonstrating project-wide GHG emissions reductions by 517 $MTCO_2e$/year. A fair-share reduction is to be made based on the total acreage proposed for development in any given tentative map or project subject to Design Review, as compared to the entire area of development proposed within the project site as a whole. For the purposes of this mitigation measure, areas not anticipated for development, such as parks and open spaces, are not included in the total development acreage. Therefore, the total development area is considered to be approximately 95 acres (assuming that 40 acres would be used for park or open space uses. Examples of measures that may be incorporated into the GHG Reduction Plan(s) prepared for on-site development may include, but are not limited to, those measures outlined in **Table 3** in Section 3.3.1 of this report or in **Appendix A Table 10**.
- **MM GHG-2**: The GHG Reduction Plan shall include suggested Local Actions from the 2017 Scoping Plan.

This section constitutes the GHG Reduction Plan and describes the reduction measures that are proposed to achieve the emissions reductions required by Mitigation Measures GHG-1 and GHG-2.

The sections below quantify the benefits of measures that will be part of the project. **Section 3.4** also describes additional measures that are not quantified but may be incorporated into the Project. Through a combination of the foregoing measures, detailed analysis demonstrates that GHG emissions related to the project can be reduced to a level of insignificance.

3.3.1 GHG Reduction Measures for Implementation

As discussed below and summarized in **Table 3**, the applicant will commit to a menu of feasible measures that cumulatively would accomplish the required reduction. This GHG Reduction Plan requires the project applicant to implement any mix or fraction of the measures listed in **Table 3**, provided that the mix results in the total required reduction. **Appendix A Table 3** shows further details on the background and assumptions, and also specifies which of these measures are Scoping Plan Local Actions. This plan incorporates on-site and off-site mitigation measures, where off-site measures have been identified to the extent on-site measures are not feasible. Table 3 shows one combination of activities to exceed the required GHG reduction. Other combinations of measures will also meet these reductions. Substitute measures that can be used are further described below in Section 3.4.1.

Table 3: Summary of Mitigation Measures That Would Achieve the Mitigation Measure GHG-1 Requirements

Source Category	Mitigation Measure	Reduction (MT CO_2e/year)
Natural Gas	No-NOx Space and Water Heating [a]	291
Electricity	Use ENERGY STAR Appliances [a]	3.2
Natural Gas	Design for All-Electric Retrofits [b]	--
On-Road Exhaust	Install Level 2 electric vehicle charging outlets in single family home garages [a]	460
Landscaping	Enable Use of Electric Landscaping equipment [a]	1.1
Construction	Use Renewable Diesel to Fuel Construction Fleets	156
Vegetation	Plant trees [a]	6.7
Reductions from Mitigation Measures		918
Required Reduction from MM GHG-1		517
Meets Requirement?		**Yes**

Notes
a. Calculations are shown in Appendix A.
b. No GHG emissions reductions were quantified for this measure to avoid double-counting or speculative assumptions. For the design for all-electric retrofits, the builders will provide an option for prospective homeowners to choose electric or induction cooking appliances instead of natural gas appliances, but it would be speculative to assume a certain percentage of buyers choose this option.
c.

Quantified measures in **Table 3** are described in detail below. Measures that are not quantified are described further in **Appendix A Table 9** and in the footnotes above**.**

- **No-NO_x Space and Water Heating:** The use of natural gas for space and water heating emits criteria air pollutants and GHGs. Replacing space and water heaters with electric (e.g., heat pumps; tankless water heaters) removes the GHG emissions associated with natural gas and also reduces criteria air pollutant emissions. This calculation adds additional emissions from the additional electricity anticipated to be used to power the space and water heating as shown in **Appendix A Tables 7** and **8**, conservatively

assuming that electricity uses the average electrical grid carbon intensity and is not provided by renewables**.**

- **ENERGY STAR Appliances:** ENERGY STAR appliances reduce electricity use compared to conventional appliances. This calculation assumes that the residences use ENERGY STAR dishwashers, refrigerators, and ceiling fans, as shown in **Appendix C.**
- **Electric Vehicle Charging Outlets:** The Project will install electric vehicle charging outlets in single family home garages to encourage electric vehicle adoption and use. This commitment is to install dedicated circuits that support Level 2 charging (e.g., 30-40 amp, 220 volt circuit) with an outlet in the garage, so that the owner of an electric vehicle could charge the vehicle. It does not require installation of a pedestal or advanced capabilities (e.g., Wi-Fi, credit card reading). Gasoline and diesel cars emit GHGs through fuel combustion, while electric vehicle charging results in indirect GHG emissions from fossil fuels used to generate electricity. The difference between the indirect electricity GHG emissions and the fossil fuel combustion emissions for the miles assumed to be provided by the charging stations is the GHG benefit due to this measure. This calculation is shown in **Tables 9** of **Appendix A.** Electric vehicles also reduce criteria air pollutant and toxic air contaminant emissions.
- **Electric Landscaping Equipment:** The Project will install exterior electrical outlets that enable the use of electric landscaping equipment. Electric landscaping equipment reduces both GHG and criteria air pollutant emissions. This assumes that 100 percent of landscaping equipment used is electric, as shown in **Appendix C.**
- **Renewable Diesel:** The Project will use Neste or other renewable diesel instead of conventional diesel for off-road construction equipment. Renewable diesel is made from 100 percent renewable and sustainable raw materials including cooking and vegetable oil residues and waste animal fats from the food processing industry and is classified as a hydrotreated vegetable oil. In the manufacturing process, the raw materials are transformed into a pure hydrocarbon fuel that can be used interchangeably with conventional diesel but provides performance benefits.[15] This GHG reduction is calculated by summing the GHG emissions from off-road equipment from the CalEEMod® outputs in the City's original DEIR**.**
- **Sequestration:** The Project will plant net new trees for all residences and as part of the streetscaping. Trees sequester carbon during their growing period of up to 20 years, as described further in the CalEEMod® Users Guide. This calculation is based on a minimum of 286 net new trees, although the actual number of trees planted may be higher, as shown in **Appendix A Table 5.**

3.4 Potential Alternative GHG Reduction Measures

3.4.1 Quantified

Any of the measures from **Table 3** are summarized in **Appendix A Table 5 and** can be replaced at the applicant's election by the alternative measures in **Appendix A Table 10** if the measures in Table 3 prove infeasible or less favorable than these alternative measures, provided that the total GHG reduction remains at least 517 MT CO_2e/year. Assumptions and

[15] Neste MY Renewable Diesel – high-performing low-carbon biofuel. Available at: https://www.neste.com/companies/products/renewable-road-transport/neste-my-renewable-diesel. Accessed: February 2, 2022.

calculations for these alternative measures are described in **Appendix A Table 10**, and the calculations avoid double-counting and are additive with the measures shown in **Table 3**.

3.4.2 Not Quantified

A combination of the measures in **Table 3** would be sufficient to accomplish the required reduction. Note that the Project could further reduce emissions by implementing other measures not quantified in this analysis, however, as these measures are not quantifiable currently, they are not eligible for additional GHG reductions at this time. However, should they become quantifiable in the future with supporting substantial evidence, this GHG Reduction Plan may be amended subject to City approval. **Appendix A Table 11** describes additional measures that have been suggested either as Scoping Plan Local Actions or as example mitigation measures from the City but were not explicitly incorporated into this analysis. For example, the Project will likely be consistent with many other suggested measures through compliance with 2019 Title 24 as follows; however, it is uncertain which of the specific measures will be used to demonstrate compliance. This includes measures such as installing energy-conserving appliances; orienting buildings to maximize passive solar heating; equipping buildings with energy efficient AC units and heating systems with programmable thermostats/timers; requiring the use of energy-efficient lighting for all street, parking, and area lighting; and including energy storage, where appropriate.

3.4.3 Demonstration of Compliance with MM GHG-2

Table 4 shows a list of mitigation measures or project design features that the project will adopt that were suggested as potential measures for GHG-2. **As shown in Table 4, the Project will include many of the suggested Local Actions from the 2017 Scoping Plan and therefore satisfies the requirement of MM GHG-2.**

Table 4: Project GHG Reduction Measures from Scoping Plan Examples

Description [a,b]	Scoping Plan Local Action? (MM GHG-2)
Enforce idling time restrictions for construction vehicles.	X
Require on-site EV charging capabilities for parking spaces serving the project to meet jurisdiction-wide EV proliferation goals.	X
Provide on- and off-site safety improvements for bike, pedestrian and transit connections, and implement relevant improvements identified in an applicable bicycle and/or pedestrian master plan.	X
Require on-site renewable energy generation.	X
Prohibit wood-burning fireplaces in new development.	X
Require solar-ready roofs.	X
Require organic collection in new developments.	X

Table 4: Project GHG Reduction Measures from Scoping Plan Examples

Description [a,b]	Scoping Plan Local Action? (MM GHG-2)
Require low-water landscaping in new developments. Require water efficient landscape maintenance to conserve water and reduce landscape waste.	X
Require the design of bike lanes to connect to the regional bicycle network.	X
Require the design of the electric outlets and/or wiring in new residential unit garages to promote electric vehicle usage.	X
Require each residential unit to be "solar ready," including installing the appropriate hardware and proper structural engineering.	X
Require each residential and commercial building to utilize low flow water fixtures such as low flow toilets and faucets.	X
Zero Net Electricity – Residential - Project produces enough renewable electricity on annual basis to offset all electricity used by residential land uses.	X
Improve onsite pedestrian access	X

Notes:
a. While some of these measures not explicitly described in this GHG Reduction Plan because the benefits are not quantified, they are regulatory requirements that are included as part of the Project.
b. The Project will likely be consistent with many other suggested measures through compliance with 2019 Title 24 as follows; however, it is uncertain which of the specific measures will be used to demonstrate compliance, e.g., energy-conserving appliances; orient buildings to maximize passive solar heating; equip buildings with energy efficient AC units and heating systems with programmable thermostats/timers; require the use of energy-efficient lighting for all street, parking, and area lighting; and include energy storage, where appropriate.

4. HEALTH RISK ASSESSMENT

Appendix B provides details of the methodology and results of the Project HRA. With respect to the Project, the BAAQMD thresholds of significance for construction, operational, and cumulative risks and hazards are shown in **Table 5.**

Table 5. BAAQMD CEQA Thresholds of Significance for HRA

Other Impacts	**Construction or Operational-Related Thresholds**
Risks and Hazards for New Sources and Receptors (Individual Project)	Compliance with Qualified Community Risk Reduction Plan OR Increased cancer risk of >10.0 in a million Increased non-cancer risk of > 1.0 HI (chronic or acute) Ambient $PM_{2.5}$ increase: > 0.3 µg/m^3 annual average
Risks and Hazards for New Sources and Receptors (Cumulative Threshold)	Compliance with Qualified Community Risk Reduction Plan OR Increased cancer risk of >100 in a million (from all local sources) Increased non-cancer risk of >10 HI (from all local sources) (chronic) Ambient $PM_{2.5}$ increase: > 0.8 µg/m^3 annual average (from all local sources) Zone of Influence: 1,000-foot radius from fence line of source or receptor

Abbreviations:
HI = hazard index
$PM_{2.5}$ = particulate matter less than 2.5 micrometers in diameter
µg/m^3 = micrograms per cubic meter

The HRA includes several components. It includes refined dispersion modeling using the US Environmental Protection Agency (USEPA)'s preferred model AERMOD, that when combined with construction activity from the DEIR and Project-specific off-road equipment data, shows that health risk impacts to off-site sensitive receptors would be below the significance thresholds. For operations, the HRA evaluates the impacts of Project traffic at nearby sensitive receptors and shows that this would not increase risks above the BAAQMD's significance thresholds, nor would the combined Project construction plus operations exceed the thresholds. Finally, the HRA evaluates potential cumulative impacts due to Project construction and operation, plus nearby existing stationary sources, traffic, and other nearby projects. This also concludes that impacts would be well below the BAAQMD's cumulative health risk significance thresholds.

5. SUMMARY AND IMPLEMENTATION

This report concludes that the Project's operational criteria pollutant emissions, and construction and operational health risk impacts are less than significant and GHG emissions are less than significant with mitigation.

APPENDIX A
SUPPORTING CALCULATIONS

Appendix A Table 1
Consumer Product Emission Factor Refinement
Bridle Gate
Brentwood, CA

Year[1]	Consumer Products VOC inventory (tons/day)[2]	Contra Costa County Population[3]	Total Building Square Footage[4]	Consumer Products VOC Emission Factor (lb/square foot/day)
2010	6.50	1,049,025	760,649,629	1.71E-05
2020	6.83	1,165,927	845,415,448	1.62E-05

Notes:

1. 2010 data are used because total building square footage was available only for 2010. Building square footage for 2020 was estimated by multiplying 2010 building square footage with the ratio of population in 2020 to that in 2010.
2. VOC inventory obtained from California Air Resources Board's emission inventory for Consumer Products under Solvent Evaporation for the respective years.
3. Population estimates obtained from US Census Bureau's QuickFacts for Contra Costa County for the respective years.
4. Total building square footage of Contra Costa County for 2010 obtained from FEMA HAZUS-MH software.

Abbreviations:

lb - pound

VOC - Volatile Organic Compound

References:

California Air Resources Board. Almanac Emission Projection Data. Available online at https://www.arb.ca.gov/app/emsinv/emssumcat.php. Accessed November 2021.

US Census Bureau QuickFacts. Available online at https://www.census.gov/quickfacts/contracostacountycalifornia. Accessed November 2021.

US Federal Emergency Management Agency's Hazus software (HAZUS-MH), Version 5.1. Available online at https://msc.fema.gov/portal/resources/hazus.

RAMBOLL

Appendix A Table 2
PG&E Electricity Intensity Factor Derivation
Bridle Gate
Brentwood, CA

Historical Electricity Intensity - PG&E

Annual Electricity Data	2016	2017	2018	Average[1]	Units
CO_2 Intensity Factor per Total Energy Delivered[2]	294	210	206	237	lbs CO_2/MWh delivered
CO2e Intensity Factor per Total Energy Delivered	296	213	209	239	lbs CO_2e/MWh delivered
% of Total Energy From RPS-Eligible Renewables[3]	33%	33%	39%	35%	-
CO_2 Intensity Factor per Total Non-RPS-Eligible Energy[4]	437	314	338	364	lbs CO_2/MWh delivered
CO_2e Intensity Factor per Total Non-RPS-Eligible Energy[4]	441	318	342	368	lbs CO_2e/MWh delivered

Estimated Intensity Factor for Total Energy Delivered by PG&E[5]

Year	2016	2017	2018	Average[5]	Units
2026 (50%)	219	157	169	181	lbs CO_2/MWh delivered
	220	159	171	183	lbs CO_2e/MWh delivered
2030 (60%)	175	126	135	145	lbs CO_2/MWh delivered
	176	127	137	147	lbs CO_2e/MWh delivered

Greenhouse Gas Energy Emission Factors

Greenhouse Gas	CO_2	CH_4	N_2O	CO_2e	Units
Global Warming Potential[6]	1	25	298	-	-
Natural Gas Use Emission Factor[7]	118	0.0023	0.0022	118	lb/MMBTU
	0.0053	0.0000	0.0000	0.0054	MT/therm

Criteria Air Pollutant Energy Emission Factors'

Land Use Type	ROG	NOx	PM_{10}	$PM_{2.5}$	Units
Residential	0.011	0.092	0.0075	0.0075	lb/MMBtu
Nonresidential	0.011	0.10	0.0075	0.0075	lb/MMBtu

Notes:

1. This average uses the most recent three years of data.
2. Total CO_2 intensity factors from The Climate Registry. Available at: https://www.theclimateregistry.org/our-members/cris-public-reports/. Accessed: April
3. Percent of total energy from eligible renewables is from the PG&E 2017, 2018, and 2019 Corporate Responsibility Report.
4. The emissions metric presented here was calculated based on the total CO2 intensity factor divided by the percent of energy delivered from non-RPS-eligible sources. This CO2 intensity factor includes both fossil fuel and carbon-free sources of energy, such as largescale hydro and nuclear. Diablo Canyon Nuclear Plant, which accounts for a portion of the carbon-free energy in this CO2 intensity factor, is planned to be closed by 2024-2025 (https://www.pge.com/en_US/safety/how-the-system-works/diablo-canyon-power-plant/diablo-canyon-power-plant/engagement-panel.page). According to SB 1090 (approved 9/2018), "The [California Public Utilities] commission shall ensure that integrated resource plans are designed to avoid any increase in emissions of greenhouse gases as a result of the retirement of the Diablo Canyon Units 1 and 2 powerplant." This was incorporated into CPUC section 712.7(2)(b). Based on this information, the total Non-RPS-Eligible energy CO2 intensity factor was assumed to remain constant.
5. The RPS of 44% by 2024, 52% by 2027, and 60% for 2030 are consistent with SB 100. The RPS for 2026 was estimated by assuming a linear increase between 2020 and 2027. Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100. The average percentage of energy from renewables for 2016-2018 is greater than the 2020 RPS of 33% as required by SB100. Thus, it is assumed that the 2016-2018 average CO2 and CO2e intensity factors remain constant through 2020, at which point the carbon intensity then decreases each year to comply with the future RPS requirements.
6. Global Warming Potentials (GWP) are based on the IPCC Fourth Assessment Report. CH4 and N2O emission factors are from the CalEEMod® version 2020.4.0 defaults for PGE, and are conservatively assumed not to change from these estimates. As more renewable energy is integrated into the electricity grid, these intensity factors will also decrease.
7. Natural Gas Use emission factors from Table 8.2 of CalEEMod User's Guide Appendix D.

Appendix A Table 2
PG&E Electricity Intensity Factor Derivation
Bridle Gate
Brentwood, CA

Abbreviations:

CalEEMod - California Emissions Estimator Model
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
CPUC - California Public Utilities Commission
GWP - global warming potential
lb - pound(s)
MMBtu - million British Thermal Units
MT - metric ton(s)
MWh - megawatt-hour
N_2O - nitrous oxide
NO_x - nitrogen oxides
PCE - Peninsula Clean Energy
PG&E - Pacific Gas & Electric
PM - particulate matter
$PM_{2.5}$ - PM less than 2.5 microns in diameter
PM_{10} - PM less than 10 microns in diameter
ROG - reactive organic gases
RPS - Renewable Portolio Standard
SB - Senate Bill

References:

California Air Pollution Control Officers Association (CAPCOA). California Emissions Estimator Model (CalEEMod), Version 2020.4.0. Available online at http://www.caleemod.com/

IPCC. 2007. AR4 Climate Change 2007: The Physical Science Basis. Available online at: https://www.ipcc.ch/report/ar4/wg1/

PG&E 2017 Corporate Resonsibility Report. Available at: https://www.pgecorp.com/corp_responsibility/reports/2017/assets/PGE_CRSR_2017.pdf. Accessed: July 2021.

PG&E 2018 Corporate Responsibility Report. Available at: https://www.pgecorp.com/corp_responsibility/reports/2018/assets/PGE_CRSR_2018.pdf. Accessed: July 2021

PG&E 2019 Corporate Responsibility Report. Available at: https://www.pgecorp.com/corp_responsibility/reports/2019/assets/PGE_CRSR_2019.pdf. Accessed: July 2021

The Climate Registry. Available at: https://www.theclimateregistry.org/our-members/cris-public-reports/. Accessed: July 2021.

SB-100 California Renewables Portfolio Standard Program. Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100.

Appendix A Table 3a
2026 Mobile Vehicle Emission Factors Inputs
Bridle Gate
Brentwood, CA

Season	Variable	Vehicle Type[1]												
		LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	Fleet Mix (%)	0.51	0.037	0.24	0.13	0.028	0.0069	0.013	0.026	0.0019	0.0020	0.0038	5.6E-04	6.9E-04
	Pollutant	**Emission Factor (g/mile or g/trip[2])**												
A	CH4_IDLEX	0	0	0	0	0.0050	0.0029	0.015	0.22	0.0079	0	0	0.088	0
A	CH4_RUNEX	0.0017	0.0048	0.0023	0.0029	0.0069	0.0061	0.010	0.10	0.010	0.43	0.16	0.12	0.010
A	CH4_STREX	0.059	0.10	0.073	0.085	0.020	0.011	0.0080	7.0E-08	0.018	0.011	0.18	0.0044	0.025
A	CO_IDLEX	0	0	0	0	0.19	0.14	0.67	5.2	0.55	0	0	1.6	0
A	CO_RUNEX	0.57	1.2	0.70	0.77	0.79	0.51	0.26	0.70	0.47	5.0	13	0.89	0.85
A	CO_STREX	2.7	4.8	3.3	3.5	2.1	1.2	0.94	0.0026	1.9	1.4	8.1	0.60	2.2
A	CO2_NBIO_IDLEX	0	0	0	0	8.6	14	158	801	88	0	0	187	0
A	CO2_NBIO_RUNEX	240	319	328	394	751	802	1,201	1,557	1,398	1,186	190	1,017	1,666
A	CO2_NBIO_STREX	62	84	83	99	17	9.4	8.0	0.029	16	10	48	3.4	21
A	NOX_IDLEX	0	0	0	0	0.049	0.087	0.85	4.1	0.36	0	0	1.2	0
A	NOX_RUNEX	0.032	0.10	0.053	0.072	0.60	0.74	0.90	1.7	1.0	0.29	0.57	2.1	1.5
A	NOX_STREX	0.22	0.35	0.29	0.35	0.40	0.22	1.4	2.8	0.94	0.10	0.13	0.52	0.30
A	PM10_IDLEX	0	0	0	0	7.3E-04	0.0014	0.0014	0.0021	4.2E-04	0	0	0.0010	0
A	PM10_PMBW	0.0069	0.0089	0.0085	0.0086	0.077	0.090	0.045	0.082	0.050	0.11	0.012	0.045	0.045
A	PM10_PMTW	0.0080	0.0080	0.0080	0.0080	0.0095	0.011	0.012	0.035	0.012	0.029	0.0040	0.011	0.013
A	PM10_RUNEX	0.0011	0.0017	0.0013	0.0013	0.014	0.021	0.0092	0.025	0.017	0.0054	0.0020	0.011	0.030
A	PM10_STREX	0.0018	0.0027	0.0020	0.0020	1.9E-04	7.9E-05	9.3E-05	4.0E-07	1.5E-04	6.0E-05	0.0035	4.2E-05	2.7E-04
A	PM25_IDLEX	0	0	0	0	6.9E-04	0.0013	0.0013	0.0020	4.0E-04	0	0	0.0010	0
A	PM25_PMBW	0.0024	0.0031	0.0030	0.0030	0.027	0.032	0.016	0.029	0.018	0.037	0.0042	0.016	0.016
A	PM25_PMTW	0.0020	0.0020	0.0020	0.0020	0.0024	0.0027	0.0030	0.0088	0.0030	0.0072	0.0010	0.0026	0.0033
A	PM25_RUNEX	0.0010	0.0016	0.0012	0.0012	0.013	0.020	0.0088	0.024	0.016	0.0052	0.0019	0.010	0.028
A	PM25_STREX	0.0017	0.0025	0.0018	0.0018	1.7E-04	7.3E-05	8.6E-05	3.7E-07	1.4E-04	5.5E-05	0.0033	3.8E-05	2.5E-04
A	ROG_DIURN	0.27	0.55	0.27	0.32	0.11	0.058	0.022	9.9E-05	0.074	0.022	2.0	0.027	28
A	ROG_HTSK	0.078	0.15	0.074	0.086	0.028	0.015	0.0054	3.1E-05	0.017	0.0075	3.6	0.0072	7.2
A	ROG_IDLEX	0	0	0	0	0.020	0.015	0.024	0.33	0.043	0	0	0.17	0
A	ROG_RESTL	0	0	0	0	0	0	0	0	0	0	0	0	0
A	ROG_RUNEX	0.0065	0.021	0.0088	0.012	0.081	0.11	0.027	0.017	0.049	0.056	1.1	0.048	0.070
A	ROG_RUNLS	0.026	0.060	0.026	0.032	0.060	0.028	0.013	3.3E-05	0.020	8.5E-04	1.3	0.0082	0.0018
A	ROG_STREX	0.27	0.48	0.33	0.42	0.10	0.053	0.043	3.8E-07	0.093	0.044	1.4	0.025	0.10
A	SO2_IDLEX	0	0	0	0	8.3E-05	1.3E-04	0.0015	0.0070	8.3E-04	0	0	0.0017	0
A	SO2_RUNEX	0.0024	0.0032	0.0032	0.0039	0.0073	0.0077	0.011	0.014	0.013	0.010	0.0019	0.0093	0.016
A	SO2_STREX	6.1E-04	8.3E-04	8.2E-04	0.0010	1.7E-04	9.3E-05	7.9E-05	2.9E-07	1.6E-04	1.0E-04	4.8E-04	3.4E-05	2.1E-04
A	TOG_DIURN	0.27	0.55	0.27	0.32	0.11	0.058	0.022	9.9E-05	0.074	0.022	2.0	0.027	28
A	TOG_HTSK	0.078	0.15	0.074	0.086	0.028	0.015	0.0054	3.1E-05	0.017	0.0075	3.6	0.0072	7.2
A	TOG_IDLEX	0	0	0	0	0.029	0.020	0.042	0.58	0.057	0	0	0.30	0
A	TOG_RESTL	0	0	0	0	0	0	0	0	0	0	0	0	0
A	TOG_RUNEX	0.0094	0.031	0.013	0.017	0.10	0.12	0.041	0.12	0.066	0.49	1.3	0.18	0.090
A	TOG_RUNLS	0.026	0.060	0.026	0.032	0.060	0.028	0.013	3.3E-05	0.020	8.5E-04	1.3	0.0082	0.0018
A	TOG_STREX	0.29	0.53	0.36	0.46	0.11	0.058	0.048	4.1E-07	0.10	0.049	1.5	0.027	0.11

Notes:

1. Emission factors for each fleet mix are based on EMFAC2021 for the Bay Area Air Quality Management District.
2. RUNEX emission factors are in units of g/mile. IDLEX and STREX emission factors are in units of g/trip.

Abbreviations:

A - Annual
CARB - California Air Resources Board
CH_4 - methane
CO_2 NBIO - carbon dioxide, non-biogenic
EMFAC - On-Road Emission Factor Model
g- gram
HHD - heavy-heavy duty trucks
IDLEX - idle exhaust emissions
LDA - light-duty automobiles
LDT - light-duty trucks
LHD1 - light-heavy-duty trucks, 8,501-10,000 lbs
LHD2 - light-heavy-duty trucks, 10,001-14,000 lbs
MCY - motorcycles
MHD - medium-heavy duty trucks
OBUS - other buses
RUNEX - running exhaust emissions
SAFE - Safer Affordable Fuel-Efficient Vehicles
SBUS - school buses
STREX - start exhaust tailpipe emisions
UBUS - urban buses

References:

California Air Resources Board. EMFAC2021. Available online at: https://arb.ca.gov/emfac/emissions-inventory

Appendix A Table 3b
2030 Mobile Vehicle Emission Factors Inputs
Bridle Gate
Brentwood, CA

Season	Variable	Vehicle Type[1]												
		LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	Fleet Mix (%)	0.50	0.034	0.24	0.14	0.029	0.0071	0.013	0.026	0.0018	0.0019	0.0037	5.7E-04	6.5E-04
	Pollutant	**Emission Factor (g/mile or g/trip[2])**												
A	CH4_IDLEX	0	0	0	0	0.0043	0.0024	0.016	0.20	0.0078	0	0	0.091	0
A	CH4_RUNEX	0.0013	0.0032	0.0018	0.0021	0.0044	0.0046	0.010	0.078	0.010	0.56	0.15	0.12	0.0061
A	CH4_STREX	0.047	0.073	0.060	0.066	0.017	0.0085	0.0064	4.1E-08	0.015	0.0089	0.16	0.0045	0.023
A	CO_IDLEX	0	0	0	0	0.18	0.13	0.63	5.0	0.57	0	0	1.7	0
A	CO_RUNEX	0.48	0.86	0.61	0.64	0.57	0.40	0.16	0.60	0.32	6.5	12	0.73	0.38
A	CO_STREX	2.2	3.6	2.8	2.8	2.0	1.1	0.70	0.0018	1.6	1.3	8.0	0.59	1.9
A	CO2_NBIO_IDLEX	0	0	0	0	7.9	13	146	725	92	0	0	180	0
A	CO2_NBIO_RUNEX	222	298	306	366	674	723	1,078	1,400	1,293	945	188	951	1,650
A	CO2_NBIO_STREX	57	77	77	92	16	8.2	6.6	0.021	13	9.4	44	3.5	20
A	NOX_IDLEX	0	0	0	0	0.040	0.074	0.74	3.8	0.34	0	0	1.0	0
A	NOX_RUNEX	0.024	0.064	0.039	0.047	0.38	0.52	0.60	1.5	0.89	0.21	0.53	1.4	1.3
A	NOX_STREX	0.19	0.28	0.25	0.28	0.33	0.18	1.2	2.6	0.91	0.079	0.11	0.53	0.30
A	PM10_IDLEX	0	0	0	0	6.9E-04	0.0014	6.3E-04	0.0018	3.1E-04	0	0	7.0E-04	0
A	PM10_PMBW	0.0069	0.0088	0.0085	0.0086	0.075	0.087	0.043	0.082	0.051	0.10	0.012	0.044	0.045
A	PM10_PMTW	0.0080	0.0080	0.0080	0.0080	0.0094	0.011	0.012	0.035	0.012	0.029	0.0040	0.010	0.013
A	PM10_RUNEX	8.6E-04	0.0013	0.0010	0.0010	0.011	0.018	0.0053	0.024	0.014	0.0041	0.0020	0.0082	0.025
A	PM10_STREX	0.0015	0.0021	0.0017	0.0016	1.3E-04	5.3E-05	7.7E-05	2.1E-07	1.3E-04	5.7E-05	0.0034	4.4E-05	2.3E-04
A	PM25_IDLEX	0	0	0	0	6.6E-04	0.0013	6.1E-04	0.0017	3.0E-04	0	0	6.7E-04	0
A	PM25_PMBW	0.0024	0.0031	0.0030	0.0030	0.026	0.031	0.015	0.029	0.018	0.034	0.0042	0.015	0.016
A	PM25_PMTW	0.0020	0.0020	0.0020	0.0020	0.0023	0.0026	0.0030	0.0088	0.0030	0.0072	0.0010	0.0026	0.0033
A	PM25_RUNEX	7.9E-04	0.0012	9.2E-04	9.0E-04	0.010	0.017	0.0051	0.023	0.014	0.0039	0.0019	0.0078	0.024
A	PM25_STREX	0.0014	0.0019	0.0015	0.0015	1.2E-04	4.9E-05	7.1E-05	2.0E-07	1.2E-04	5.2E-05	0.0032	4.1E-05	2.1E-04
A	ROG_DIURN	0.24	0.49	0.24	0.28	0.087	0.046	0.016	4.8E-05	0.072	0.018	1.9	0.034	20
A	ROG_HTSK	0.065	0.13	0.062	0.070	0.021	0.011	0.0036	1.4E-05	0.015	0.0051	3.6	0.0078	4.8
A	ROG_IDLEX	0	0	0	0	0.018	0.013	0.021	0.31	0.043	0	0	0.18	0
A	ROG_RESTL	0	0	0	0	0	0	0	0	0	0	0	0	0
A	ROG_RUNEX	0.0045	0.013	0.0065	0.0079	0.056	0.086	0.015	0.015	0.038	0.044	1.0	0.036	0.052
A	ROG_RUNLS	0.023	0.052	0.024	0.028	0.046	0.022	0.0095	1.5E-05	0.020	8.4E-04	1.4	0.010	0.0012
A	ROG_STREX	0.21	0.36	0.27	0.31	0.079	0.040	0.033	2.2E-07	0.077	0.034	1.2	0.025	0.088
A	SO2_IDLEX	0	0	0	0	7.7E-05	1.2E-04	0.0013	0.0063	8.6E-04	0	0	0.0016	0
A	SO2_RUNEX	0.0022	0.0029	0.0030	0.0036	0.0066	0.0070	0.010	0.013	0.012	0.0073	0.0019	0.0087	0.016
A	SO2_STREX	5.6E-04	7.6E-04	7.6E-04	9.1E-04	1.6E-04	8.1E-05	6.5E-05	2.0E-07	1.3E-04	9.3E-05	4.4E-04	3.5E-05	2.0E-04
A	TOG_DIURN	0.24	0.49	0.24	0.28	0.087	0.046	0.016	4.8E-05	0.072	0.018	1.9	0.034	20
A	TOG_HTSK	0.065	0.13	0.062	0.070	0.021	0.011	0.0036	1.4E-05	0.015	0.0051	3.6	0.0078	4.8
A	TOG_IDLEX	0	0	0	0	0.025	0.017	0.040	0.54	0.056	0	0	0.31	0
A	TOG_RESTL	0	0	0	0	0	0	0	0	0	0	0	0	0
A	TOG_RUNEX	0.0066	0.019	0.010	0.012	0.068	0.10	0.027	0.095	0.053	0.61	1.2	0.16	0.064
A	TOG_RUNLS	0.023	0.052	0.024	0.028	0.046	0.022	0.0095	1.5E-05	0.020	8.4E-04	1.4	0.010	0.0012
A	TOG_STREX	0.23	0.39	0.29	0.34	0.086	0.044	0.037	2.4E-07	0.085	0.037	1.3	0.028	0.10

Notes:

1. Emission factors for each fleet mix are based on EMFAC2021 for the Bay Area Air Quality Management District.
2. RUNEX emission factors are in units of g/mile. IDLEX and STREX emission factors are in units of g/trip.

Abbreviations:

A - Annual
CARB - California Air Resources Board
CH_4 - methane
CO_2 NBIO - carbon dioxide, non-biogenic
EMFAC - On-Road Emission Factor Model
g- gram
HHD - heavy-heavy duty trucks
IDLEX - idle exhaust emissions
LDA - light-duty automobiles
LDT - light-duty trucks
LHD1 - light-heavy-duty trucks, 8,501-10,000 lbs
LHD2 - light-heavy-duty trucks, 10,001-14,000 lbs
MCY - motorcycles
MHD - medium-heavy duty trucks
OBUS - other buses
RUNEX - running exhaust emissions
SAFE - Safer Affordable Fuel-Efficient Vehicles
SBUS - school buses
STREX - start exhaust tailpipe emisions
UBUS - urban buses

References:

California Air Resources Board. EMFAC2021. Available online at: https://arb.ca.gov/emfac/emissions-inventory

Appendix A Table 4
Entrained Dust and Silt Loading in Contra Costa County
Bridle Gate
Brentwood, CA

Entrained Roadway Dust Constants for Contra Costa County		
Roadway Category	**Silt Loading[1] (g/m^2)**	**Travel Fraction[1]**
Freeway	0.015	50%
Major	0.032	37%
Collector	0.032	9%
Local	0.32	4%
Weighted Silt Loading Factor	0.035	100%

Road Dust Equation[2]

E [lb/VMT] = k*(sL)^0.91 * (W)^1.02 * (1-P/4N)

Parameters	**Value**
k = particle size multiplier for particle size range	
PM_{10} (lb/VMT)	0.0022
$PM_{2.5}$ (lb/VMT)	3.3E-04
sL = roadway silt loading [grams per square meter - g/m^2]	0.035
W = average weight of vehicles traveling the road [tons]	2.4
P = number of "wet" days in county with at least 0.01 in of precipitation during the annual averaging period	65
N = number of days in the averaging period	365

Entrained Road Dust Emission Factors	
PM_{10} Emission Factor [lb/VMT]	2.4E-04
$PM_{2.5}$ Emission Factor [lb/VMT]	3.6E-05

Notes:

1. Travel fraction by roadway category and silt loading are from the ARB's March 2021 update to Entrained Road Travel Emission Inventory Source Methodology, Tables 2 and 4, respectively.
2. Road dust equation and parameters are from the California Air Resources Board's (ARB) March 2021 Miscellaneous Process Methodology 7.9 for Entrained Road Travel, Paved Road Dust. The silt loading emission factor assumes Contra Costa county default roadway fractions and silt loading levels from ARB 2021. The number of "wet" days for Contra Costa county is 65 from ARB 2021. Other parameters (average weight of vehicles, size multipliers) are from ARB 2021. $PM_{2.5}$ is assumed to be 15% of PM_{10} based on paved road dust sampling in California (ARB Speciation Profile #471), which is a more representative fraction than provided in the older AP-42 fugitive dust methodology as discussed in ARB 2021 (PDF pages 17 and 36).

Abbreviations:

ARB - California Air Resources Board
CalEEMod® - California Emissions Estimator Model
EMFAC - EMission FACtor Model
g - gram
lb - pound
m - meter
$PM_{2.5}$ - particulate matter less than 2.5 microns
PM_{10} - particulate matter less than 10 microns
VMT - vehicle miles traveled

References:

California ARB. 2021. Miscellaneous Processes Methodologies - Paved Entrained Road Dust. Available online at: https://ww3.arb.ca.gov/ei/areasrc/fullpdf/2021_paved_roads_7_9.pdf

California Air Pollution Control Officers Association (CAPCOA). California Emissions Estimator Model (CalEEMod), Version 2020.4.0. Available online at http://www.caleemod.com/

EPA. 2006. AP42, Fifth Edition ,Volume 1. Chapter 13: Miscellaneous Sources, 13.2.1 Paved Roads. Available online at: https://www3.epa.gov/ttn/chief/ap42/ch13/final/c13s0201.pdf

Appendix A Table 5
Details on GHG Reductions from Regulations, Project Design Features, and Mitigation Measures
Bridle Gate
Brentwood, CA

#	Category	Description	Assumptions	GHG Reduction ($MT CO_2e/yr$)	Notes	Scoping Plan Local Action?
1	Energy	Energy Star[1]	Energy efficient appliances are installed	3.2		
2	Energy	Zero Net Electricity Low-Rise Residences[2]	All single family homes and low-rise apartments achieve Zero Net Electricity	146	2019 Title 24 requirement.	X
3	Energy	No-NOx space and water heating	All structures within the project site shall be developed with water heating and space heating systems that do not result in the emission of NO_x. No-NO_X systems are typically all-electric.	291	Assumes that water and space heating are replaced with electric appliances served with grid-average electricity. Calculations are shown in Appendix A Tables 7 and 8.	
4	Energy	Design for All-Electric Retrofits	Design structures with the infrastructure necessary to allow for the conversion of all natural gas appliances to all-electric equivalents.	-	Conservatively, no GHG benefit has been quantified due to uncertainty on when retrofits would occur.	
5	Mobile	Traffic Calming and Connectivity[1]	Traffic calming features at 25 percent of streets and intersections, the Project's extensive bicycle and pedestrian network and connectivity on-site and off-site	103	Calculated in CalEEMod.	
6	Mobile	Residential Electric Vehicles	Install electric vehicle charging station outlets in all single family garages.	460	Assumes Level 2 charging (standard 30-40A, 220V). This assumes 25% of single family residential miles are driven in EVs by 2030. Details are shown in Appendix A Table 9.	X
7	Area	Electrify landscaping equipment[1]	Provide outdoor electrical outlets to allow for use of electrically powered landscaping equipment at all residences and commercial developments within the project site.	1.1	Quantified using CalEEMod. No further reduction was included to account for the inclusion of outside electrical outlets.	X
8	Waste	Institute Recycling & Composting Services[1]	Divert additional solid waste from landfills	86	An additional 50% diversion from CalEEMod default rates is reflected in the Mitigated Scenario, which is based on Statewide historical data with a target 50% diversion rate. AB 341 requires 75% diversion by 2020. Chapter 8.16 of the City's Municipal Code requires that all property owners maintain a subscription for refuse collection. Refuse collection is provided by the City of Brentwood's Solid Waste Division, which includes green waste collection. Acceptable green wastes include yard clippings, uncooked food, branches, and other forms of yard waste.	X
9	Water	Water Efficient/Drought Tolerant Landscaping[1]	Reduce outdoor water consumption	0.8	Landscaping within the project site would be required to comply with the CALGreen code and all water efficiency measures therein, including the MWELO regulations adopted by the City if Brentwood in Section 17.630.010 of the Brentwood Municipal Code. This assumes a 20% reduction in outdoor water consumption, which is reflected in the mitigated CalEEMod scenario.	
10	Water	Low-Flow Fixtures[3]	Use low-flow for all interior water fixtures (toilets, kitchen and bathroom sink faucets)	1.3	The Project would be required to comply with the water efficiency regulations within CALGreen. This assumes a 20% reduction in indoor water consumption.	X
11	Construction	Renewable Diesel	Use renewable diesel to fuel construction fleets	156	100% of off-road construction emissions, 30-year amortized	X
12	Vegetation	Urban Forestry/Sequestration	Plant trees throughout the Project site	6.7	Assumes a minimum of 286 net new trees will be planted.	X
			Unmitigated Project Emissions	3,110		
			Reductions Needed to Achieve BAAQMD 2030 Service Population Threshold	855		
			Emissions Reductions from Regulatory Measures, Project Design Features, and Mitigation	1,256	As summarized above; this exceeds the required reductions.	
			Remaining Emissions	1,854		
			Remaining Emissions Exceed Threshold?	No		

Notes:
1. Quantified using CalEEMod® version 2020.4.0. CalEEMod outputs are included in Appendix C.
2. Calculated using CalEEMod® inputs and outputs in Excel.
3. Calculated using CalEEMod® methodology in Excel, as shown in Appendix A tables.

Abbreviations:
BAAQMD - Bay Area Air Quality Management District
CalEEMod - California Emissions Estimator Model
CO2e - carbon dioxide equivalents
GHG - greenhouse gas

Appendix A Table 6
Reductions from Reduced Indoor Water Consumption
Bridle Gate
Brentwood, CA

Category		Project
Total Indoor Water Use (Mgal/yr)[1]		19
Reduction due to CalGreen (Low-Flow Fixtures)[2]		20%
Electricity Intensity Factors (kWh/Mgal)[3]	Supply	2,117
	Treat	111
	Distribute	1,272
	Treat Wastewater	1,911
Reduction in Total Annual Energy Use (kWh/yr)[4]		20,166
Electricity Intensity Factor[5]	lbs CO_2e/MWh	147
Total GHG Emissions Reduction (MT CO_2e/yr)[6]		1.3

Notes:

Indoor water usage is from the CalEEMod outputs.

CalEEMod® is meant to assume reductions ranging from 20% to 35%, but due to an error within the CalEEMod programming, it does not calculate any reductions due to this measure; therefore, this has been conservatively calculated here.

CalEEMod® default assumptions are used for average embodied energy for the supply, treatment and distribution of water, as well as treatment of wastewater, for Northern California.
For potable water, the water use is multiplied by the sum of the electricity intensity factors to supply, treat and distribute the water and treat the resulting wastewater.

California emission factors presented here are 60% projected RPS for 2030 consistent with SB 100. Available at:
https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100

GHG emissions reductions were calculated by multiplying the annual energy use by the electricity intensity factor and then by the reduction due to CalGreen. This calculation conservatively excludes the direct GHG emissions reductions that would result from less wastewater treatment.

Abbreviations:

CalEEMod® - CALifornia Emissions Estimator MODel
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
GHG - greenhouse gases
kWh - kilowatt-hour
lb - pound
Mgal - million gallons
MWh - megawatt-hou
MT - metric tonnes
RPS - Renewables Por
SB - Senate Bill
yr - year

Appendix A Table 7
Electricity and Natural Gas End Use Proportions
Bridle Gate
Brentwood, CA

Residential Energy Use Categories[1]

Gas[2]	**Appliance Group**	**Percent of Primary Natural Gas Energy Uses**
		Single Family Units
	Water Heaters	47%
	Conventional Heat	44%
	Cooking (Oven + Cooktop)	9%
	Total (Water Heater, Conventional Heat, & Cooking)	100%
Electric	**Appliance Group**	**Energy Use per Dwelling Unit (kWh/DU/year)**
		Single Family Units
	Water Heaters	3,169
	Conventional Heat	1,171
	Cooking (Oven + Cooktop)	310
	Total (Water Heater, Conventional Heat, & Cooking)[3,4]	**4,650**

Notes

1. Residential energy consumption data is provided per appliance type by the California Energy Commission (CEC) 2009 Residential Appliance Saturation Study. The CEC began an updated survey in 2019, but results are not yet publicly available.

2. Natural Gas Energy Consumption estimates are presented only for homes with natural gas billing data. Due to variability in saturation rates of other natural gas appliances (e.g., spa heaters, auxiliary heating, gas dryers), these totals are assumed to sum to 100% for use in this methodology. If the projects only electrify certain appliances and therefore use these percentages to calculate reductions from CalEEMod defaults, this is assumed to be a reasonable representation because the current Title 24 Building Energy Efficiency Standards are expected to reduce natural gas use more than what is reflected in the CalEEMod defaults.

3. For projects that commit to one or more of the appliance groups to be electric, the electricity use can be increased by just the rate shown for the relevant appliance groups and the natural gas use can be reduced by the percent of natural gas from the appliance groups shown above.

4. Space heating and water heating are included in the Title 24 electricity and Title 24 natural gas energy usage categories of CalEEMod, while cooking and appliances are included in the non-title 24 electricity and natural gas energy usage categories.

Abbreviations

CalEEMod - California Emissions Estimator Model
DU - Dwelling Unit
kBTU - thousand British Thermal Units
kWh - kilowatt-hour
ksf - thousand square feet

References

California Commercial End Use Survey, Annual Summary Statistics. Accessed February 2020. Available online at http://capabilities.itron.com/CeusWeb/Chart.aspx

2009. California Energy Commission. California Residential Appliance Saturation Study, Volume 2: Study Results. Accessible online at https://webtools.dnvgl.com/RASS2009/Uploads/2009_RASS_Volume%202_FINAL_101310.pdf

Appendix A Table 8

Reductions from Electric Space and Water Heating; and Potential Additional Reduction for All-Electric Buildings

Bridle Gate

Brentwood, CA

.

Project Reduction in Natural Gas Usage and Resulting Electricity Consumption

Land Use	Amount	2019 Title 24-Adjusted CalEEMod Default NG Usage (kBTU/unit/yr)[1]	Natural Gas Reduction (MMBTU/yr)[1]		Additional Electricity Usage (MWh/yr)[1]	
			All-Electric[3]	Mitigated Project[3]	All-Electric[3]	Mitigated Project[3]
Single Family Housing	286 DU	26,630	7,616	6,955	1,330	1,241
City Park	4 acre	0	0	0	0	0

Estimated Emissions

CalEEMod® Land Use	GHG Emissions (MT CO_2e/yr)					
	Emissions for All-Electric Buildings[2,3]			Mitigated Project Emissions		
	Reduction from Natural Gas	Emissions from Additional Electricity	Net Emissions Reduction for All-Electric	Reduction from Natural Gas	Emissions from Additional Electricity	Net Emissions Reduction from Project
Single Family Housing	409	89	320	373	83	291
City Park	0	0	0	0	0	0
Total	**409**	**89**	**320**	**373**	**83**	**291**

Notes:

1. Energy use rates are consistent with CalEEMod default estimates and incorporate 2019 Title 24. The reduction in natural gas usage and corresponding increase in electricity usage are estimated based off of the natural gas end use analysis shown in Appendix A Table 7, which is the same methodology recently promulgated by the SMAQMD.
2. The natural gas emission factor is from CalEEMod® 2020.4.0. The electricity intensity is shown in Appendix A Table 2.
3. The Mitigated Project will include all-electric space and water heating. Emissions reductions for an all-electric project (e.g., removing cooking and miscellaneous other natural gas end uses) are also calculated here to support the potential for the Alternative Mitigation Measure.

Abbreviations:

BMP - Best Management Practice
CalEEMod - California Emissions Estimator Model
CO_2e - carbon dioxide equivalent
DEIR - Draft Environmental Impact Report
DU - dwelling unit
GHG - greenhouse gas
kBTU - 1,000 British Thermal Units
MMBtu - 1,000,000 British Thermal Units
MT - metric tons
MWh - megawatt-hour
NG - natural gas
SMAQMD - Sacramento Metropolitan Air Quality Management District
TSF - thousand square feet
yr - year

Appendix A Table 9
Reductions from Electric Vehicle Charging Infrastructure in Single Family Homes
Bridle Gate
Brentwood, CA

Estimating GHG Emissions Reduction from Replacement of Gasoline Vehicle with Electric Vehicle		
PG&E Electricity Emission Factor[1]	0.066	(MT CO_2/MWh)
Fuel Economy of Electric Vehicle[2]	0.25	(KWh/mile)
Electric Vehicle GHG Emissions	16	(gms/mile)
GHG Emissions for the Residential Miles Traveled as Estimated by CalEEMod®[3]	328	(gms/mile)
GHG Emissions Reduction from Additional Electric Vehicles, per mile	311	(gms/mile)
Estimating Project Residential-Related Traffic GHG Emissions		
	Project	
Single Family Residential Average Yearly VMT, Mitigated[4]	5,917,516	(miles/year)
Percent of Single Family Residential Miles Driven in Electric Vehicles due to This Measure[5]	25%	
Residential VMT that is Displaced by EVs due to This Measure	1,479,379	(miles/year)
Estimated Benefit from Residential EV Chargers		
GHG Emissions Reduction from Residential Electric Vehicles[6]	460	(MT CO_2/year)

Notes:

CO_2e intensity factor for PG&E accounts for the 60% projected RPS for 2030 consistent with SB 100.

National Renewable Energy Laboratory (NREL). 2018. California Plug-In Electric Vehicle Infrastructure Projections: 2017-2025 (Table C.1). Available at: https://www.nrel.gov/docs/fy18osti/70893.pdf. Accessed: May 2020.

The emissions factor is consistent with the CalEEMod® input (EMFAC2021), and includes default reductions for the ACC Program and Pavley Standards. This conservatively evaluates running emissions for CO_2 only; if starting and idling emissions and CH_4 and N_2O were included, the emission factor would increase. To ensure that the Project mitigation's emissions reduction benefit does not take credit for EVs that EMFAC2021 already forecasts will be part of the vehicle fleet, the emissions factor and emissions inventory includes the existing EVs. CalEEMod® conservatively includes medium- and heavy-duty vehicle emissions factors proportional to EMFAC2021's default fleet mix when calculating mobile emissions for all land use types.

From CalEEMod® modeling for the Mitigated Inventory shown in Appendix C.

EVs are proliferating at a much faster pace than predicted in EMFAC. Access to home charging is a key factor in the decision to purchase an EV; therefore, the availability of a 30-40 amp, 220-volt outlet to support a Level 2 charger in each of the garages at the Project site will incentivize further EV preference. This assumes that and additional 25% of VMT associated with the single family residences is driven in an EV by full buildout, which could be achieved by many scenarios (e.g., ranging from 50% of homes have 1 EV that they use for half of their driving to 25% of homes drive exclusively EVs by 2030).

Calculated by multiplying the GHG reduction per mile from additional EVs by the miles displaced by EVs due to this measure.

Abbreviations:

ACC - Advanced Clean Cars
CalEEMod® - CALifornia Emissions Estimator MODel
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
EMFAC - Emissions Factor Model
EV - electric vehicle
g/gms - gram
GHG - greenhouse gases
kWh - kilowatt-hour
MT - metric tonnes
MWh - megawatt-hour
N_2O - nitrous oxide
PG&E - Pacific Gas & Electric
RPS - Renewables Portfolio Standard
SB - Senate Bill
VMT - vehicle miles traveled

Appendix A Table 10
Details on GHG Reductions from Alternative Mitigation Measures
Bridle Gate
Brentwood, CA

#	Category	Description	Assumptions	Reduction	Notes
				MT/ CO_2e/yr	
1[1]	Energy	No Natural Gas - Residential	Assumes the remaining natural gas is removed and replaced by zero-carbon energy sources.	30	Removes the remaining emissions from natural gas; this is additive with the mitigation measure for electric space and water heating.
2	Construction	Electric Construction Equipment	Increase use of electric powered construction equipment	7.2	10% of off-road construction emissions from DEIR CalEEMod output, 30-year amortized. Alternative to renewable diesel (not additive)
3	Construction	Grid power	Utilize grid power for electric energy rather than operating temporary gasoline/diesel powered generators	5.2	Replace all construction emergency generators with carbon-free electricity, 30-year amortized Alternative to renewable diesel (not additive)
4	Vegetation	Urban Forestry	Additional tree planting	24	Per 1,000 trees

Notes:

1. Calculated by subtracting the benefits of electric water and space heating from the benefits of an all-electric building as shown in Appendix A Table 8.

Abbreviations

BAAQMD - Bay Area Air Quality Management District
CalEEMod - California Emissions Estimator Model
CAPCOA - California Air Pollution Control Officers Association
CO2e - carbon dioxide equivalents
DEIR - Draft Environmental Impact Report
EV - electric vehicle
GHG - greenhouse gas
MM - Mitigation Measure
MT - metric tons
yr - year

References:

CalEEMod® 2020.4.0 Available Online at: http://www.caleemod.com

Appendix A Table 11
Summary of Potential Project Features That Were Not Quantified
Bridle Gate
Brentwood, CA

Category	Description	Assumptions	Scoping Plan Local Action?
Energy	Orient buildings to maximize passive solar heating.	This will reduce energy consumption. However, as building orientation is already included in Title 24, Part 6 building energy modeling software, it may be used for code compliance and therefore no additional benefit can been quantified without building-specific modeling.	
Energy	Require the installation of energy conserving appliances such as on-demand tankless water heaters and whole-house fans.	This will reduce energy consumption. However, as these systems are already included in Title 24, Part 6 building energy modeling software, it may be used for code compliance and therefore no additional benefit can been quantified without building-specific modeling.	X
Energy	Require each residential and commercial building to equip buildings with energy efficienc AC units and heating systems with programmable thermostats/timers.	This will reduce energy consumption. However, as these systems are already included in Title 24, Part 6 building energy modeling software, it may be used for code compliance and therefore no additional benefit can been quantified without building-specific modeling.	X
Energy	Require large-scale residential developments and commercial buildings to report energy use, and set specific targets for per-capita energy use.	This benefit would be speculative and uncertain with overlap with other energy reduction measures.	X
Energy	Achieve third-party green building certifications, such as the GreenPoint Rated program, LEED rating system, the Living Building Challenge, or equivalent programs	This will reduce energy consumption. However, given the large number of options to achieve these types of compliance and overlap with Title 24, no additional benefit can been quantified without building-specific modeling.	X
Energy	Require the use of energy-efficient lighting for all street, parking, and area lighting.	While the current version of Title 24, Part 6 requires the use of high-efficacy lighting, street and area lighting are not quantified in CalEEMod and therefore no additional reduction can be incorporated.	X
Energy	Include energy storage, where appropriate	This will enhance the effectiveness of solar PV or zero net electricity measures. However, there are not enough specifics known about this measure to quantify. The quantity and types of storage used as well as the time of day of storage would need to be known.	
Construction	Use construction fleets that are lower emitting than any current emission standard	The use of lower-emitting construction equipment (e.g., USEPA/CARB Tier 4 standard) reduces criteria air pollutants and diesel particulate matter; however, it does not reduce GHG emissions and therefore no additional benefit can be quantified.	X
Construction	Require construction vehicles to operate with the highest tier engines commercially available	The use of lower-emitting construction equipment (e.g., USEPA/CARB Tier 4 standard) reduces criteria air pollutants and diesel particulate matter; however, it does not reduce GHG emissions and therefore no additional benefit can be quantified.	X
Construction	Enforce idling time restrictions for construction vehicles	This is already assumed in the emissions modeling, as it is a state regulation.	X
Construction	Divert and recycle construction and demolition waste, and use locally-sourced building materials with a high recycled material content.	There are not enough specifics known about this measure to quantify. We would have to know the quantity of recycled or refurbished materials being incorporated. Where the non recycled was being sourced from, where the recycled is being sourced from, etc. We do not quantify lifecycle emissions.	X

Abbreviations
CalEEMod - California Emissions Estimator Model
GHG - greenhouse gas
LEED - Leadership in Energy and Environmental Design
MM - Mitigation Measure
PV - photovoltaics

APPENDIX B
HEALTH RISK ASSESSMENT

RAMBOLL

ENVIRONMENT
& HEALTH

APPENDIX B: MEMO

Date: **March 7, 2023**

To: **Louis Parsons, Discovery Builders**

From: **Shari Beth Libicki, PhD**

Subject: **UPDATED HEALTH RISK ANALYSIS FOR PROPOSED BRIDLE GATE DEVELOPMENT IN BRENTWOOD, CALIFORNIA**

Ramboll US Consulting, Inc (Ramboll) conducted an updated health risk assessment (HRA) for the construction and operation associated with the revised Bridle Gate Project (the "Project") in a currently undeveloped portion of the City of Brentwood. Ramboll has prepared a quantitative HRA that concludes that the Project would have less-than-significant health risks.

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The Revised Project is a proposed development located in Brentwood, California and will consist of the following:

- 286 single-family homes, and a
- 2 Public parks

The Project Area location, as well as surrounding receptors and sensitive receptor locations, is presented in **Figure 1**.[1]

We understand that once operational, the only source of air emissions from the Project is mobile sources (i.e., traffic). This analysis performs refined modeling for air emissions and associated health impacts from construction sources, a screening-level assessment of the health impacts of Project operational mobile emissions, and a cumulative assessment of existing nearby emissions sources. **The updated HRA analysis concludes that all risk impacts are below the threshold of significance.**

CEQA THRESHOLDS OF SIGNIFICANCE

The City of Brentwood (the City) is the lead agency responsible for Project approval. Per City guidelines, Ramboll evaluated the Project in accordance with the current Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines,

[1] As shown in Figure 1, the area analyzed for potential health risk impacts includes additional area in the northeast of the project site that was evaluated in a previous, larger iteration of the Project. This is a conservative approach, as it means that the evaluated zone of impact to potential receptors is farther than the current proposed construction boundary.

which were updated in May 2017.[2] These guidelines present methods for evaluating compliance with CEQA as well as thresholds for determining significance. With respect to the Project, the BAAQMD thresholds of significance for construction, operational, and cumulative risks and hazards are as follows:

BAAQMD CEQA Thresholds of Significance	
Other Impacts	**Construction or Operational-Related Thresholds**
Risks and Hazards for New Sources and Receptors (Individual Project)	Compliance with Qualified Community Risk Reduction Plan OR Increased cancer risk of >10.0 in a million Increased non-cancer risk of > 1.0 HI (chronic or acute) Ambient $PM_{2.5}$ increase: > 0.3 µg/m^3 annual average
Risks and Hazards for New Sources and Receptors (Cumulative Threshold)	Compliance with Qualified Community Risk Reduction Plan OR Increased cancer risk of >100 in a million (from all local sources) Increased non-cancer risk of >10 HI (from all local sources) (chronic) Ambient $PM_{2.5}$ increase: > 0.8 µg/m^3 annual average (from all local sources) Zone of Influence: 1,000-foot radius from fence line of source or receptor
Abbreviations: HI = hazard index $PM_{2.5}$ = particulate matter less than 2.5 micrometers in diameter µg/m^3 = micrograms per cubic meter	

This Technical Memorandum evaluates Project health risks and hazards with respect to these BAAQMD thresholds of significance.

METHODOLOGY

Construction-Related TAC Emissions

The purpose of the current analysis is to assess the potential human health risk on the surrounding off-site receptors from the project's construction and operation and $PM_{2.5}$ concentration, including fugitive dust. For the original Draft Environmental Impact Report (DEIR) preparation, CalEEMod® (California Emissions Estimator Model) was used by the City's consultant Raney to develop the construction CAP emissions inventory in evaluating a previous, larger iteration of the Project.[3] Since the original analysis, two new versions of CalEEMod® have been released by the Air Resources Board

[2] BAAQMD. 2017. California Environmental Quality Act (CEQA) Air Quality Guidelines. May. Available online at: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

[3] Software and User's Guide available publicly at www.caleemod.com. Version 2016.3.2.

(ARB); the most recent version is CalEEMod® 2022.1.0 was referenced and used for this reanalysis.[4] Ramboll used the construction activity assumptions from the original DEIR and CalEEMod® equivalent methodology to estimate off-road and on-road toxic air contaminant (TAC) emissions.

Ramboll updated the construction schedule (as shown in **Table 1**) and replaced the fleet-averaged emission factors from the CalEEMod® default equipment emission factors with emission factors that more accurately depict the off-road fleet that will be used based on data from Discovery Builders' construction contractors. Ramboll received a comprehensive list of all equipment owned and operated by the contractors the project proponent typically uses for these types of development, and used the emission factor associated with this tier to estimate construction emissions. The construction tiers derived from this evaluation are shown in **Table 2**. Construction trips and trip lengths are CalEEMod defaults for Contra Costa county for worker and vendor trips and are presented in **Table 3**.

The emission factors used by CalEEMod® in the DEIR for on-road vehicles are based on the ARB EMFAC2014 program. Since the project submittal and the last release of CalEEMod®, ARB released the EMFAC2021 version that includes various updates, notably the incorporation of USEPA and ARB regulations and standards (e.g., the Truck and Bus Rule). To more accurately estimate the TAC emission rates, EMFAC2021 was incorporated into the analysis. [5] Additionally, the DEIR estimates a 7.3-mile trip vendor trip length. Of this, 0.85 miles of State Route 4 (SR-4) are assumed to represent emissions that could impact receptors that could also be impacted by the on-site off-road equipment and are modelled, so emissions were estimated over 0.85 miles. **Figure 1** shows the 0.85 mile distance of SR-4, which extends from the northernmost to southernmost off-site sensitive receptor.

The TAC emissions associated with the Project construction were estimated from the CalEEMod® outputs, with the following conservative assumptions:

1. Diesel Particulate Matter (DPM): DPM emissions were used to evaluate the cancer risk and non-cancer chronic HI from Project construction. In this analysis, both onsite (i.e., construction equipment) and local offsite (i.e., construction mobile sources) PM_{10} exhaust emissions were calculated as DPM.[6,7] Diesel exhaust, a complex mixture that includes hundreds of individual constituents, is identified by the State of California as a known carcinogen.[8,9] Under California regulatory guidelines, DPM is used as a surrogate measure of exposure for the mixture of chemicals that make up diesel exhaust as a whole. Cal/EPA and other proponents of using the surrogate approach to quantifying excess lifetime cancer risks associated with the diesel mixture indicate that this method is preferable to use of a component-based approach because it provides a protective approach to estimating health risks. A component-based approach involves estimating risks for each of the individual components of a mixture. Critics of the component-based approach believe it will underestimate the risks associated with diesel as a whole mixture because the identity of all chemicals in the mixture may not be known and/or exposure and health effects information for all chemicals identified within the mixture may not be available. Furthermore, Cal/EPA has concluded that "potential cancer risk from inhalation exposure to whole diesel exhaust

[4] Software and User's Guide available publicly at www.caleemod.com. Version 2022.1.0.

[5] California Air Resources Board. EMFAC2021. https://arb.ca.gov/emfac/

[6] Local offsite (mobile source) emissions were scaled from the emissions estimated in CalEEMod® by the ratio of modeled road length to default trip length.

[7] On-road construction worker trips are primarily gasoline-fueled which contribute negligible TAC emissions and are therefore not included in the HRA analysis.

[8] Cal/EPA, OEHHA. 1998. Findings of the Scientific Review Panel on The Report on Diesel Exhaust, as adopted at the Panel's April 22, 1998, meeting.

[9] Cal/EPA, OEHHA. 2018. OEHHA/ARB Consolidated Table of Approved Risk Assessment Health Values. May. Available at: https://www.arb.ca.gov/toxics/healthval/contable.pdf. Accessed: February 2, 2022.

will exceed the multi-pathway cancer risk from the speciated components".[10] This analysis was based on the surrogate approach, as recommended by Cal/EPA. This analysis also conservatively assumed the small fraction of non-diesel PM_{10} (i.e., PM_{10} emissions from gasoline fueled or natural gas fueled vehicles in the CalEEMod® default vendor fleet) was DPM, which has greater human health impacts than the speciated components of other fuels.[11]

2. $PM_{2.5}$: $PM_{2.5}$ concentration due to Project construction was evaluated based on exhaust $PM_{2.5}$ emissions as well as fugitive $PM_{2.5}$ emissions associated with road dust, grading, and bulldozing activities. Fugitive dust is generated by various construction activities and can contribute to $PM_{2.5}$ emissions.

    a. Entrained Dust: Vehicular travel on paved road can generate resuspended road dust. The entrained road dust emission factor was updated based on CARB's 2021 Miscellaneous Process Methodology 7.9 for entrained road travel, paved road dust, and CalEEMod defaults for Contra Costa County. Roadway silt loading for Contra Costa County is presented in **Table 4**. **Table 5** and **Table 6** show the calculation of the entrained dust emission factor and total emissions, respectively.

    b. Grading fugitive dust: Grading fugitive dust is generated by grading equipment (e.g., excavators, graders, scrapers). Grading fugitive dust emissions were calculated using VMT-based emission factors and project maximum area disturbed, based on CalEEMod methodology, as shown in **Table 7**.

    c. Bulldozing fugitive dust: Bulldozing fugitive dust is generated by the dozing activities during site preparation and grading. Bulldozing fugitive dust emissions were calculated using VMT-based emission factors and project-specific bulldozing equipment usage, based on CalEEMod methodology, as shown in **Table 8**.

Ramboll conservatively evaluated health impacts for the maximum development scenario, which represents construction and buildout of the entire site, although at this time the contemplated Project only includes a portion of this area; this analysis therefore overestimates emissions and impacts compared to what would be expected. Total modelled emissions, and the sources they were attributed to, are presented in **Table 9**.

Construction Health Risk Assessment

Ramboll characterized cancer risk, non-cancer chronic hazard index (HI), and $PM_{2.5}$ concentration associated with construction risks by estimating ambient air concentrations of DPM and $PM_{2.5}$ within 1,000 feet of the Project. This boundary represents the "zone of influence" recommended for the cumulative evaluation of a project in the BAAQMD CEQA Guidelines. Acute non-cancer health effects were not estimated, as the only TAC evaluated is DPM, which does not have acute health impacts. This is standard practice and consistent with the current OEHHA guidance. While individual speciated components of DPM might have acute health impacts, the cancer impacts associated with DPM will

[10] Cal/EPA, OEHHA. 2015b. Air Toxics Hot Spots Program Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. Appendix D: Risk Assessment Procedures to Evaluate Particulate Emissions from Diesel-Fueled Engines. February. Available at: https://oehha.ca.gov/media/downloads/crnr/2015gmappendices.pdf. Accessed: February 2, 2022.

[11] A comprehensive analysis of human health impacts associated with diesel and gasoline exhaust by the International Agency for Research on Cancer (IARC) found that while there is sufficient evidence for the carcinogenicity of diesel engine exhaust, there is inadequate evidence in humans for the carcinogenicity of gasoline engine exhaust. For more information, see: IARC. 2014. Diesel and Gasoline Engine Exhausts and Some Nitroarenes. Volume 105. Available at: https://www.ncbi.nlm.nih.gov/books/NBK294269/pdf/Bookshelf_NBK294269.pdf

almost always exceed the total acute health impact across the speciated components barring unusual circumstances (e.g., a sensitive receptor located directly above the emissions release point for a point source); according to OEHHA Guidance, if DPM is the only pollutant of concern, the Air District should be consulted prior to performing an acute non-cancer health analysis to determine appropriate procedures and confirm the assessment is warranted.[12]

Estimated Air Concentrations

To estimate air concentrations of DPM and $PM_{2.5}$, Ramboll used AERMOD (version 22112), a steady-state Gaussian plume model developed by USEPA for regulatory applications.[13] The fugitive dust was modelled as an area source with zero-meter release height and one-meter initial vertical dimension, following South Coast Air Quality Management District guidance.[14] AERMOD requires emission source locations and release parameters, receptor locations, and processed meteorological data. The construction modelled source parameters are shown in **Table 10**.

Ramboll used five years of meteorological data from the Stockton Metropolitan Airport, which was the best available dataset to represent the Project site conditions, based on terrain and wind data. **Figure 2** shows other nearby meteorological stations that were considered for determining the best available dataset. Stockton was chosen because it exhibits similar terrain to the Project site, without major disturbances between them (e.g., mountain ranges or influences from large bodies of water). Additionally, the prevailing wind direction is from the northwest at the Stockton Airport, which would maximize impacts on the nearby off-site sensitive receptors that are primarily to the southeast of the Project site. Meteorological data were processed by San Joaquin Valley Air Pollution Control District (SJVAPCD) using AERMET (version 18018).[15]

In order to evaluate health impacts to nearby off-site receptors, Ramboll modelled receptors at every structure within the vicinity of the Project, including potential new receptors that will be sited north of the Project after construction of the Priority Area 1 Specific Plan. Off-site receptors were modelled at a height of 1.5 m, above terrain height, consistent with BAAQMD guidance. [16] **Figure 1** includes a map of nearby off-site sensitive receptor locations evaluated in the HRA.

Exposure Assessment

This analysis evaluates nearby off-site sensitive receptors based on the updated Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2015), which combines information from previously released and adopted technical support documents to delineate OEHHA's revised risk assessment methodologies based on current science. The BAAQMD has issued HRA Guidelines formally adopting the OEHHA 2015 Guidance Manual.[17] This analysis followed the recommended methodology from the 2015 OEHHA Hot Spots Guidance. Ramboll conservatively

[12] Ibid.

[13] United States Environmental Protection Agency (USEPA). 2019. User's Guide for the AMS/EPA Regulatory Model - AERMOD. August. Available at:. Accessed: February 2, 2022.

[14] South Coast Air Quality Management District. 2008. Final Localized Significance Threshold Methodology. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2. Accessed June 2022; BAAQMD currently does not have a guideline for modeling fugitive dust from construction sites.

[15] SJVACPD. 2018. Meteorological Data. May. Available online at: http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm. Accessed: February 2, 2022.

[16] BAAQMD Health Risk Assessment Modeling Protocol. 2020. Final Localized Significance Threshold Methodology. https://www.baaqmd.gov/~/media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol-pdf.pdf?la=en

[17] BAAQMD. 2016. Health Risk Assessment Guidelines. Air Toxics NSR program. December. Available at: https://www.baaqmd.gov/~/media/files/planning-and-research/permit-modeling/hra_guidelines_12_7_2016_clean-pdf.pdf?la=en

evaluated Project impacts due to construction emissions using default exposure assumptions for a resident child from OEHHA (2015) unless otherwise noted.[18] The resident child scenario assumes a much higher daily breathing rate and age-sensitivity factor (ASF)[19] than other sensitive receptor populations and therefore is the most conservative scenario to evaluate for this analysis.[20] The exposure parameters used to estimate excess lifetime cancer risks for a resident child are presented in **Table 11**.

The dose estimated for each exposure pathway is a function of the concentration of a chemical and the intake of that chemical. The intake factor for inhalation, IF_{inh}, can be calculated as follows:

$$IF_{inh} = \frac{DBR * FAH * EF * ED * CF}{AT}$$

Where:

IF_{inh}	=	Intake Factor for Inhalation (m^3/kg-day)
DBR	=	Daily Breathing Rate (L/kg-day)
FAH	=	Fraction of Time at Home (unitless)
EF	=	Exposure Frequency (days/year)
ED	=	Exposure Duration (years)
AT	=	Averaging Time (days)
CF	=	Conversion Factor, 0.001 (m^3/L)

The chemical intake or dose is estimated by multiplying the inhalation intake factor, IF_{inh}, by the chemical concentration in air, C_i. When coupled with the chemical concentration, this calculation is mathematically equivalent to the dose algorithm given in the OEHHA Hot Spots guidance (Cal/EPA 2003).

The estimated excess lifetime cancer risks for a resident will be adjusted using age sensitivity factors (ASFs) that account for an "anticipated special sensitivity to carcinogens" of infants and children as

[18] BAAQMD. 2010. BAAQMD Air Toxics NSR Program Health Risk Screening Analysis (HRSA) Guidelines. January.

[19] Ibid.

[20] While OEHHA (2015) recommends that a Tier 1 evaluation of a daycare scenario assume eight hours of moderate intensity activities, USEPA (2009) characterizes daycares as ranging from a minimum of sedentary and passive activities to a maximum of light intensity activity, with an average of light intensity activities (see USEPA 2009, Appendix B, page B-7). According to USEPA (2009), an average child (0-6 years old) spends approximately 14.5 hour/day in sedentary/passive activities (including sleeping or napping), 5.8 hours/day in light intensity activities, 3.7 hours/day in moderate intensity activities, and 0.2 hours/day in high intensity activities.
Under the construction scenario, assuming most of the sleeping occurs during the night hours, the exposure activities and breathing rate will be the same for the resident child and the daycare child. As construction activities occur during the day, the construction exposures and risks will be the same for the two receptor types assuming they are both present for the construction time and duration. As the daily construction duration can span more or different hours than the 8-hour daycare exposure time, the residential scenario is more conservative.
USEPA. Metabolically Derived Human Ventilation Rates: A Revised Approach Based Upon Oxygen Consumption Rates (Final Report, 2009). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-06/129F, 2009. Available at: https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=202543

recommended in the OEHHA Technical Support Document and OEHHA 2015 Guidance.[21,22] As shown in **Table 9**, an ASF of 10 for children was applied to the resident child, assuming the resident child receptors are between the ages of birth to age two, while an ASF of 3 was used for populations with ages in the range of two to 16.[23]

Toxicity Assessment

The toxicity assessment characterizes the relationship between the magnitude of exposure and the nature and magnitude of adverse health effects that may result from such exposure. This HRA evaluated theoretical exposures to TACs for two categories of potential adverse health effects, cancer and non-cancer endpoints. Toxicity values used to estimate the likelihood of adverse effects occurring in humans at different exposure levels are identified as part of the toxicity assessment component of a risk assessment.

Excess lifetime cancer risk and chronic hazard quotient (HQs) calculations for Project construction utilized the toxicity values for DPM. Toxicity values for DPM (Cal/EPA 2016) are as presented in **Table 12**.

Risk Characterization

Excess lifetime cancer risks are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens. The estimated risk is expressed as a unitless probability. The cancer risk attributed to a chemical is calculated by multiplying the chemical intake or dose at the human exchange boundaries (e.g. lungs) by the chemical-specific cancer potency factor (CPF).

The equation used to calculate the potential excess lifetime cancer risk for the inhalation pathway is as follows:

$$Risk_{inh} = Ci \times CF \times IF_{inh} \times CPF_i \times ASF$$

Where:

$Risk_{inh}$	=	Cancer risk; the incremental probability of an individual developing cancer as a result of inhalation exposure to a particular potential carcinogen (unitless)
C_i	=	Annual average air concentration for $chemical_i$ ($\mu g/m^3$)
CF	=	Conversion factor (mg/µg)
IF_{inh}	=	Intake factor for inhalation (m^3/kg-day)

[21] Cal/EPA. 2009. Technical Support Document for Cancer Potency Factors: Methodologies for Derivation, Listing of Available Values, and Adjustment to Allow for Early Life Stage Exposures. May. Available online at: https://oehha.ca.gov/media/downloads/crnr/tsdcancerpotency.pdf.

[22] Cal/EPA, OEHHA. 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. Appendix D: Risk Assessment Procedures to Evaluate Particulate Emissions from Diesel-Fueled Engines. February. Available at: https://oehha.ca.gov/media/downloads/crnr/2015gmappendices.pdf. Accessed: February 2, 2022.

[23] BAAQMD. 2016. Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines. January. Available online at: https://www.baaqmd.gov/~/media/files/planning-and-research/permit-modeling/hra_guidelines_12_7_2016_clean-pdf.pdf?la=en.

CPF_i	=	Cancer potency factor for chemical$_i$ (mg chemical/kg body weight-day)$^{-1}$
ASF	=	Age sensitivity factor (unitless)

The potential for exposure to result in adverse chronic noncancer effects is evaluated by comparing the estimated annual average air concentration (which is equivalent to the average daily air concentration) to the noncancer chronic reference exposure level (cREL) for each chemical. When calculated for a single chemical, the comparison yields a ratio termed a hazard quotient (HQ). To evaluate the potential for adverse chronic non-cancer health effects from simultaneous exposure to multiple chemicals, the HQs for all chemicals are summed, yielding a HI:

$$HQ_i = C_i / cREL_i$$

$$HI = \sum HQ$$

Where:

HI	=	Hazard index
HQ_i	=	Chronic hazard quotient for chemical i
C_i	=	Annual average concentration of chemical i (µg/m^3)
$cREL_i$	=	Chronic noncancer reference exposure level for chemical i (µg/m^3)

Cancer risk and chronic HI were calculated from ambient annual concentrations using intake factors, cancer potency factors, and chronic reference exposure levels calculated consistent with the 2015 OEHHA Hot Spots Guidance.

Construction Health Risk Assessment Results

As shown in **Table 13**, the cancer risk from construction activities at the maximally exposed individual receptor (MEIR) is calculated to be 7.0 in 1 million, compared to a threshold of 10 in 1 million. Construction activities would also result in a non-cancer hazard index of 0.0036 (threshold of 1.0), and maximum $PM_{2.5}$ concentration of 0.017 µg/m^3 (threshold of 0.3 µg/m^3). These results are all below the BAAQMD thresholds of significance; thus, health risk impacts associated with construction of the Project are less than significant.

Operational Health Risk Assessment

In accordance with BAAQMD CEQA guidelines, Ramboll calculated the impacts from Project-related operational traffic along SR-4. To do this, Ramboll used the operational traffic generation rates from the CalEEMod® runs from the DEIR and conservatively assumed that all of those trips would travel along SR-4. In reality, some trips would occur on the internal circulation system within the Project site, but SR-4 is closer to the MEIR location and thus it was conservative to assume that all Project traffic was along SR-4.

The BAAQMD provides a raster file upon request containing conservative estimates of $PM_{2.5}$ concentration and cancer risk from highways. This major roadway screening tool includes impacts from all roadways with daily traffic above 30,000 vehicles per day. However, the raster tool appears to model Brentwood Blvd (a parallel road due east of SR-4) but not SR-4, so Ramboll used a scaling methodology to calculate the impacts from SR-4 using the data from Brentwood Blvd. To estimate

health impacts from Project traffic, Ramboll used the highway risk raster to perform a scaling analysis. First, Ramboll identified the MEIR from construction-related impacts and determined the closest distance between the MEIR and SR-4. Ramboll then determined the average health impacts for receptors the equivalent distance and direction away from Brentwood Boulevard. The average health impact was then scaled by the ratio of Project traffic to approximate traffic along that segment of Brentwood Boulevard.[24]

As shown in **Table 13**, the risk from Project traffic at the MEIR is 0.77 in a million, while the $PM_{2.5}$ concentration is 0.009 µg/m^3. These are well below the BAAQMD significance thresholds of 10 in a million at 0.3 µg/m^3, respectively. If summed with the construction cancer risk impact described above, total risk remains below the BAAQMD significance threshold with total risk of 7.8 in a million. The actual risk is much lower, because this conservatively assumes the same MEIR is exposed to both construction and operations starting in the third trimester and throughout the earliest years of life when most sensitive to the effects of air pollution, when in reality, the construction MEIR would not be exposed to Project traffic until after construction was complete. Because $PM_{2.5}$ concentration is an annual impact and there is no overlap between maximum construction and maximum operation, as long as both impacts are less than significant, than the project is less than significant for $PM_{2.5.}$

Cumulative Health Risk Assessment

In accordance with BAAQMD CEQA guidelines, Ramboll conducted a cumulative HRA for offsite sensitive receptors. The offsite cumulative assessment tabulates the impact of Project-related construction and operational risks plus existing offsite sources (stationary and mobile) at the MEIR location for construction. This is a conservative evaluation, as it assumes that the MEIR is exposed to both construction and full buildout operational emissions simultaneously starting with a fetus *in utero* during its third trimester. The evaluation requires the identification of any stationary and mobile sources within 1,000 feet of the Project boundary. This HRA also includes potential impacts for other planned projects nearby. In addition to the evaluation of each single source, the combined health risk from all toxic air contaminant (TAC) and $PM_{2.5}$ sources are evaluated.

Sources evaluated in the cumulative health risk assessment include any BAAQMD permitted stationary source, roadways with over 5,000 vehicles per day, and any other major source of emissions within the zone of 1000' influence. The BAAQMD provides tools with conservative estimates of impacts from these sources, including a stationary source tool[25] and a set of raster files containing railway screening results, highway screening results, major roadway screening results, and roadway screening tables. As described above, BAAQMD's major roadway screening tool includes impacts from all roadways with daily traffic above 30,000 vehicles per day. Aside from SR-4, there are no other major roadways within 1,000 feet of the Project boundary.

To ensure that impacts from SR-4 are adequately accounted for, Ramboll performed a scaling analysis similar to the one described above for the operational health risk assessment. Again, Ramboll determined the average health impacts for a sensitive receptor an equivalent distance and direction

[24] While the exact traffic along Brentwood Boulevard is not known, communication with Areana Flores at BAAQMD via email on July 1, 2020 confirmed that the minimum average annual daily traffic (AADT) used for this model was 30,000. To ensure the most conservative analysis, Ramboll assumed the minimum number of trips were modeled along Brentwood Boulevard.

[25] Ramboll submitted a Stationary Source Inquiry to BAAQMD to determine that all sources provided in the online tool were up-to-date.

from Brentwood Boulevard and scaled the impacts by the ratio of SR-4 traffic to Brentwood Boulevard traffic.[26]

The only stationary source within the vicinity of the Project is an emergency generator located east of the Project. While this stationary source is more than 1,000 feet away from the Project boundary, the impacts as provided by the BAAQMD are included to ensure all risks to the MEIR are accounted for.

Other nearby ongoing or planned projects may potentially have air quality impacts that would impact the MEIR in a cumulative setting. Two projects were identified near the Project site and have been incorporated into the cumulative HRA.

- The Ranch at Antioch is a planned mixed-use residential development to the west of the Project site. Its eastern border is more than 1,000 feet from the Project boundary.[27] Therefore, The Ranch is not expected to have air quality impacts that meaningfully affect the Project MEIR.
- The Powerdrive Oil & Gas Company Wells Project ("Powerdrive Project") may establish an oil and gas well pad in an agricultural area to the southwest of the Project site. Because the Powerdrive Project is adjacent to the Project receptors, it has the potential to impact air quality at the MEIR. However, the Powerdrive Project published a Negative Declaration that indicates that air quality impacts will be less than significant.[28] Therefore, air pollutant emissions and health risks are anticipated to be below the BAAQMD's project-level significance thresholds. To be conservative, this HRA assumes that the cancer risk at the Project MEIR could increase by as much as 10 in a million and $PM_{2.5}$ impacts could increase by as much as 0.3 µg/m^3 (the significance thresholds) due to the Powerdrive Project. The actual risk is likely to be much lower, because the MEIR location is more than 1,000 feet east of the Powerdrive Project close to SR-4.

The cumulative HRA results, which include impacts from Project construction, Project operation, and the nearby cumulative sources described above, are summarized in **Table 14**. As shown in **Table 14**, the maximum cumulative cancer risk is calculated to be 23 in 1 million, compared to a cumulative risk threshold of 100 in 1 million. The Project would also result in a cumulative maximum non-cancer hazard index of 0.0040 (threshold of 10), and cumulative maximum $PM_{2.5}$ concentration of 0.38 µg/m^3 (threshold of 0.8 µg/m^3). These results are all well below the BAAQMD thresholds of significance; thus, health risk impacts associated with construction and operation of the Project and cumulative risks are less than significant.

SUMMARY OF RESULTS

This analysis utilized conservative assumptions, with respect to Project construction and cumulative health risk impacts on offsite receptors, as discussed in the sections above. The construction and

[26] Consistent with the BAAQMD highway risk raster tool, the traffic along SR-4 between Lone Tree Road and Sand Creek Road is estimated from the 2014 Traffic Volumes aggregated by Caltrans. The traffic along this segment is approximately 89,000 AADT. For more information, see: Caltrans. 2014. 2014 Traffic Volumes on California State Highways. Available at: https://dot.ca.gov/-/media/dot-media/programs/traffic-operations/documents/census/aadt/f0017652-2014-aadt-volumes.pdf

[27] City of Antioch. 2020. The Ranch Environmental Impact Report. Project Description. Available at: https://www.antiochca.gov/fc/community-development/planning/The-Ranch/36230007_2.0_Project%20Description.pdf. Accessed: February 2, 2022.

[28] Contra Costa County. 2020. Notice of Public Review and Intent to Adopt a Negative Declaration. Powerdrive Oil & Gas Company Wells. Available at: https://www.contracosta.ca.gov/DocumentCenter/View/64854/LP19-2019-Notice-of-Public-Reviewpdf-WEB-VERSION. Accessed: February 2, 2022.

operational HRA results are summarized in **Table 13** and the cumulative HRA results are summarized in **Table 14**. The Project does not exceed any BAAQMD CEQA significance thresholds.

TABLES

Table 1

Construction Schedule

Bridle Gate

Brentwood, California

Construction Subphase[1]	Start Date	End Date	Number of Work Days	Days per Week
Site Preparation	7/1/2024	9/8/2024	50	5
Grading	9/9/2024	5/17/2026	440	5
Building Construction	5/18/2026	6/25/2028	550	5
Paving	6/26/2028	1/21/2029	150	5
Architectural Coating	1/22/2029	3/2/2031	550	5

Notes:

1. The construction start date of 7/1/2024 was provided by the Project Sponsor. Construction phasing information was based on CalEEMod defaults for the project acreage.

Table 2

Construction Equipment

Bridle Gate

Brentwood, California

Off-Road Activity Assumptions[1]

Construction Subphase			Days	CalEEMod® Equipment Type	Number	Horsepower	Hours of Usage Per Day	Tier
Site Preparation	Site Preparation	50	50	Rubber Tired Dozers	3	367	8	Tier 2
	Site Preparation	50		Tractors/Loaders/Backhoes	4	84	8	Tier 4 Interim
Grading	Grading	440	440	Excavators	2	36	8	Tier 3
	Grading	440		Graders	1	148	8	Tier 2
	Grading	440		Rubber Tired Dozers	1	367	8	Tier 4 Final
	Grading	440		Scrapers	2	423	8	Tier 4 Final
	Grading	440		Tractors/Loaders/Backhoes	2	84	8	Tier 4 Interim
Building Construction	Building Construction	550	550	Cranes	1	367	7	No Specific Tier
	Building Construction	550		Forklifts	3	82	8	No Specific Tier
	Building Construction	550		Generator Sets	1	14	8	No Specific Tier
	Building Construction	550		Tractors/Loaders/Backhoes	3	84	7	Tier 4 Interim
	Building Construction	550		Welders	1	46	8	No Specific Tier
Paving	Paving	150	150	Pavers	2	81	8	Tier 3
	Paving	150		Paving Equipment	2	89	8	Tier 2
	Paving	150		Rollers	2	36	8	Tier 2
Architectural Coating	Architectural Coating	550	550	Air Compressors	1	37	6	No Specific Tier

Notes

1. Ramboll reviewed the DEIR and confirmed that the construction activity assumptions were reasonable. The construction phasing, equipment selection, and equipment activity modeled are consistent with the DEIR, and are based on CalEEMod defaults.

2. Ramboll adjusted the construction equipment tier based on a comprehensive list of all equipment owned and operated by the Project contractor. From this, Ramboll conservatively identified the lowest tier equipment for each CalEEMod equipment type and used the emission factor associated with this tier to estimate emissions. For example, if an equipment type has a mix of Tier 1, 2, 3, 4 Interim, and 4 Final equipment, Tier 1 was used. If no specific tier was modeled, the default CalEEMod equipment emission factor was used. If the minimum tier accounted for less than 10% of equipment of that type, the next lowest tier was used.

[3] Tier 4 final were used for Rubber Tired Dozers and Scrapers in order to lower the emissions and meet the threshold.

Table 3

Construction Trips

Bridle Gate

Brentwood, California

Trip Data

Construction Phase	Construction Subphase	Start Year	Construction Days	Trip Rates[1] (trips/day)		Trip Lengths[2] (miles/one-way trip)	
				Worker Trips	Vendor Trips	Worker Trips	Vendor Trips
Construction	Site Preparation	2024	50	18	--	12.9	7.4
	Grading	2024	440	20	--	12.9	7.4
	Building Construction	2026	550	623	197	12.9	7.4
	Paving	2028	150	15	--	12.9	7.4
	Architectural Coating	2029	550	125	--	12.9	7.4

EMFAC Data[4]

Trip Type	EMFAC Settings	Fleet Mix	Fuel Type
Worker	Contra Costa County Calendar Years 2024-2031 Annual Season Aggregated Model Year EMFAC2007 Vehicle Categories	25% LDA, 50% LDT1, 25% LDT2	Gasoline
Vendor		50% MHDT, 50% HHDT	Diesel
Hauling		100% HHDT	Diesel

Notes:

1. Trip rates were confirmed by the Project Sponsor.
2. Trip lengths are based on CalEEMod Appendix G defaults for Contra Costa County.
3. Emissions were calculated using emission factors from EMFAC2021 with the specified settings and fleet and fuel assumptions.

Abbreviations:

CalEEMod - California Emissions Estimator Model

EMFAC2021 - California Air Resources Board EMission FACtor model

LDA - light-duty automobiles

LDT - light-duty trucks

HHDT - heavy-heavy duty trucks

sqft - square feet

References:

The California Emissions Estimator Model (CalEEMod). Available at: http://www.caleemod.com/

California Air Resources Board (ARB) 2021. EMFAC2021. Available at: https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools

Table 4
Silt Loading Emission Factors
Bridle Gate
Brentwood, California

Entrained Roadway Dust Constants for Contra Costa County

Roadway Category	Silt Loading[1] (g/m^2)	Travel Fraction[1]
Freeway	0.015	0.50
Major	0.032	0.37
Collector	0.032	0.090
Local - Urban	0.32	0.040
Weighted Silt Loading Factor	0.035	1.0

Notes:

[1.] Travel fraction by roadway category and silt loading are based on ARB's Entrained Road Travel Emission Inventory Source Methodology Tables 2 and 4, respectively.

Abbreviations:

ARB - Air Resources Board
g - gram(s)
m - meter

References:

California Air Resources Board (ARB). 2021. Miscellaneous Process Methodology 7.9, Entrained Road Travel, Paved Road Dust. March. Available online at: https://ww3.arb.ca.gov/ei/areasrc/fullpdf/2021_paved_roads_7_9.pdf

Table 5
Emission Factors for Entrained Roadway Dust
Bridle Gate
Brentwood, California

Road Dust Equation[1]

E [lb/VMT] = [k*(sL)^0.91 * (W)^1.02]*(1-P/4N)

Parameters[2,3]	Value
E = annual average emission factor in the same units as k	[calculated]
k = particle size multiplier for particle size range	
$PM_{2.5}$ (lb/VMT)	3.3E-04
sL = roadway silt loading [grams per square meter - g/m^2]	0.035
W = average weight of vehicles traveling the road [tons]	2.4
P = number of "wet" days in county with at least 0.01 in of precipitation during the annual averaging period[3]	65
N = number of days in the averaging period	365
$PM_{2.5}$ Emission Factor [lb/VMT]	3.6E-05

Notes:

1. Road dust equation and parameters are from the California Air Resources Board's (ARB) 2021 Miscellaneous Process Methodology 7.9 for Entrained Road Travel, Paved Road Dust.
2. The silt loading emission factor assumes Contra Costa County default roadway fractions and silt loading levels from ARB 2021. Other parameters (average weight of vehicles, size multipliers) are from ARB 2021. PM2.5 is assumed to be 15% of PM10 based on paved road dust sampling in California (ARB Speciation Profile #471), which is a more representative fraction than provided in the older AP-42 fugitive dust methodology as discussed in ARB 2021 (page 17).
3. The number of "wet" days for Richmond, CA is from the California Air Resources Board's (ARB) 2021 Miscellaneous Process Methodology 7.9 for Entrained Road Travel, Paved Road Dust.

Abbreviations:

ARB - California Air Resources Board
CalEEMod - California Emissions Estimator Model
EMFAC - EMission FACtor Model
g - gram
lb - pound
$PM_{2.5}$ - particulate matter less than 2.5 microns
VMT - vehicle miles traveled

References:

California Air Resources Board (ARB). 2021. Miscellaneous Process Methodology 7.9, Entrained Road Travel, Paved Road Dust. March. Available online at: https://ww3.arb.ca.gov/ei/areasrc/fullpdf/2021_paved_roads_7_9.pdf

The California Emissions Estimator Model (CalEEMod). Available at: http://www.caleemod.com/

Table 6
Emission Calculation for Entrained Roadway Dust
Bridle Gate
Brentwood, California

Inputs

Trip Length[1]		
Worker Trip length (miles/trip)	0.85	
Vendor Trip Length (miles/trip)	0.85	
Entrained Road Dust Emission Factors[2]		
$PM_{2.5}$ Emission Factor [lb/VMT]	3.6E-05	Calculated

Construction Area	**Subphase**	**Start Year**	**Construction Days**	**Worker Trips (trips/day)**	**Vendor Trips (trips/day)**	**Worker VMT (miles)**	**Vendor VMT (miles)**	**Total VMT (miles)**	**Total Emissions (lb)**
									$PM_{2.5}$
Full Site	Site Preparation	2024	50	18	--	765	--	765	0.028
	Grading	2024	440	20	--	7480	--	7,480	0.27
	Building Construction	2026	550	623	197	291252.5	92,098	383,350	14
	Paving	2028	150	15	--	1912.5	--	1,913	0.070
	Architectural Coating	2029	550	125	--	58437.5	--	58,438	2.1

Notes:
1. Trip lengths for worker, vendor, and hauling were set to the modeled length of 0.85 miles.
2. Entrained road dust emission factors were obtained from Table 5.

Abbreviations:
CalEEMod - California Emissions Estimator Model
$PM_{2.5}$ - particulate matter less than 2.5 microns

Table 7

Fugitive Dust Emissions from Off-Road Grading Activity

Bridle Gate

Brentwood, California

Construction Area	Construction Subphase[1]	Year	Total Work Days (per year)	Equipment	Quantity	CalEEMod Grading rate[2]	Maximum Area Disturbed[1]	Grading VMT[2]	$PM_{2.5}$ Emission Factor[3]	Emissions
										$PM_{2.5}$
						acre/8hr-day	acre/day	mile/day	lb/VMT	lb/yr
Full Site	Grading	2024	82	Graders	1	0.5	0.5	0.34	0.17	4.7
				Rubber Tired Dozers	1	0.5	0.5	0.34		4.7
				Scrapers	2	1	2	1.4		19
		2025	261	Graders	1	0.5	0.5	0.34		15
				Rubber Tired Dozers	1	0.5	0.5	0.34		15
				Scrapers	2	1	2	1.4		60
		2026	97	Graders	1	0.5	0.5	0.34		5.6
				Rubber Tired Dozers	1	0.5	0.5	0.34		5.6
				Scrapers	2	1	2	1.4		22

Notes:

1. Maximum graded area calculated following guidance in the CalEEMod® User's Guide, Appendix C.
2. Based on CalEEMod® default daily acres graded by equipment type, Table G-14, below.

Equipment	Acres Graded per 8 Hour Day
Crawler Tractors	0.5
Graders	0.5
Rubber Tired Dozers	0.5
Scrapers	1

3. VMT per day calculated following guidance in the CalEEMod® User's Guide, Appendix C, which is based on AP-42, Section 11.9 for grading equipment. The equation is:
   VMT = AS/Wb x (43,560 sqft/acre)/(5,280 ft/mile), where:

   A_S = A_S, acres graded per day (varies by sub-activity); in this case using maximum estimated disturbed acres/day

   12 = W_b, blade width of grading equipment (CalEEMod® default) in ft

3. Emission factors calculated following guidance in the CalEEMod® User's Guide, Appendix C, which is based on AP-42, Section 11.9 for grading equipment. The equations are:
   EFPM10 = 0.051 x (S)2.0 x FPM10
   EFPM2.5 = 0.04 x (S)2.5 x FPM2.5 where:

   7.1 = S, mean vehicle speed (mph) (AP-42 default)

   0.6 = F_{PM10}, PM_{10} scaling factor (AP-42 default)

   0.031 = $F_{PM2.5}$, $PM_{2.5}$ scaling factor (AP-42 default)

Abbreviations:

CalEEMod® - California Emissions Estimator Model
EF - emission factor
ft - feet
lb - pound
yr - year

Table 8
Fugitive Dust Emissions from Off-Road Bulldozing Activity
Bridle Gate
Brentwood, California

Construction Area	Construction Subphase	Number of Equipment	Daily Usage (hours/day)	Total Equipment Work Hours[1] (hours/day)	Uncontrolled $PM_{2.5}$ Emission Factor[3] (lbs/hour)	Emissions[4]	
						$PM_{2.5}$	
						lb/day	ton
Full Site	Grading	1	8	8	0.41	3.3	0.73

Notes:

1. The equipment use schedule is based on Project-specific estimates, and includes planned hours for all tracked dozers to be used during the given phase.

2. Emission factor calculated following guidance in the CalEEMod® User's Guide, Appendix A, which is based on AP-42, Section 11.9 for bulldozing equipment. The equation is:

   $EF_{PM10} = C_{PM15} \times s1.5 / M1.4 \times F_{PM10}$, where the following default values are used:

   1 = C_{PM15}, arbitrary coefficient
   6.9 = s, material silt content (%)
   7.9 = M, material moisture content (%)
   0.75 = F_{PM10}, PM_{10} scaling factor

3. Emission factor calculated following guidance in the CalEEMod® User's Guide, Appendix A, which is based on AP-42, Section 11.9 for bulldozing equipment. The equation is:

   $EF_{PM2.5} = C_{TSP} \times s^{1.2} / M^{1.3} \times F_{PM2.5}$, where the following default values are used:

   5.7 = C_{TSP}, arbitrary coefficient
   6.9 = s, material silt content (%)
   7.9 = M, material moisture content (%)
   0.105 = $F_{PM2.5}$, $PM_{2.5}$ scaling factor

4. The mass emissions shown are converted from ton per year to gram per second for the health risk assessment. The conversion is based on 365 days per year and 10 hours per day, consistent with the modeled hours from 7 AM - 5 PM.

Abbreviations:

CalEEMod® - California Emissions Estimator Model
EF - emission factor
lbs - pounds
PM_{10} - particulate matter less than 10 microns
$PM_{2.5}$ - particulate matter less than 2.5 microns
VMT - vehicle miles traveled

References:

California Air Pollution Control Officers Association (CAPCOA). 2020. California Emissions Estimator Model (CalEEMod), Version 2020.4.0. Available online at http://www.caleemod.com/

Table 9

Construction Emission Summary

Bridle Gate

Brentwood, California

Phase	Phase	Year	Construction Emissions				
			Construction Equipment[1]		On-Road Trucks[2]		
			DPM	$PM_{2.5}$[3]	$PM_{2.5}$[4]	DPM	$PM_{2.5}$[3]
			g/s		g/s	g/s	
Site Preparation	SITE PREPARATION	2024	0.0012	0.0011	1.1E-06	0	0
Grading	GRADING	2024	8.6E-04	0.011	2.0E-06	0	0
	GRADING	2025	0.0027	0.035	6.1E-06	0	0
	GRADING	2026	0.0010	0.013	2.2E-06	0	0
Building Construction	BUILDING CONSTRUCTION	2026	0.0017	0.0017	1.2E-04	9.2E-05	2.0E-04
	BUILDING CONSTRUCTION	2027	0.0025	0.0025	1.8E-04	1.4E-04	3.2E-04
	BUILDING CONSTRUCTION	2028	0.0011	0.0011	8.6E-05	6.3E-05	1.5E-04
Paving	PAVING	2028	0.0012	0.0011	2.2E-06	0	0
	PAVING	2029	1.2E-04	1.1E-04	2.4E-07	0	0
Architectural Coating	ARCHITECTURAL COATING	2029	1.1E-04	1.3E-04	3.3E-05	0	0
	ARCHITECTURAL COATING	2030	9.9E-05	1.3E-04	3.4E-05	0	0
	ARCHITECTURAL COATING	2031	1.4E-05	1.9E-05	5.6E-06	0	0

Notes:

1 The default CalEEMod® off-road equipment fleet was updated to reflect the Project contractor's equipment fleet. The lowest tier for each CalEEMod® equipment type was conservatively assumed to perform all of the off-road activity.

2 On-road construction vendor trip emissions were modeled along an approximately 0.85 mile stretch of State Route (SR) 4.

3 As per the latest BAAQMD guidance, PM2.5 concentrations should include fugitive emissions from tirewear and breakwear, thus total PM2.5 emissions can be higher than exhasut PM10 emissions under this scenario. However, exhaust PM10 emissions are always greater than exhaust PM2.5 emissions.

Abbreviations:

BAAQMD - Bay Area Air Quality Management District

CalEEMod® - California Emissions Estimator Model®

CAP - Criteria Air Pollutants

CEQA - California Environmental Quality Act

GHG - Greenhouse Gases

ROG - reactive organic gases

NOx - nitrogen oxides

PM_{10} - particulate matter less than 10 microns

$PM_{2.5}$ - particulate matter less than 2.5 microns

Reference:

California Emissions Estimator Model (CalEEMod). 2016. CAPCOA. Available online at: http://www.caleemod.com

California Environmental Quality Act (CEQA) Guidelines. 2017. Bay Area Air Quality Management District (BAAQMD). May. Available online at: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

California EMission FACtor Model (EMFAC2017). Available at: https://arb.ca.gov/emfac/

Table 10

Modeled Source Parameters

Bridle Gate

Brentwood, California

Source[1]	Source Type	Source Dimension	Release Height[2]	Initial Vertical Dimension[3]	Initial Lateral Dimension[4]
		[m]	[m]	[m]	[m]
Construction Equipment	Volume[5]	20	5	1.2	9.3
On-Road Trucks	Volume	9	2.55	2.4	4.2
Construction Equipment - Fugitive Dust[6]	Area	Approximate Equipment Area	0	1	--

Notes:

1. The number of modeled construction equipment sources is based on the number of distinct construction work areas. The number of on-road vehicle sources is based on the geometry of the truck or traffic routes.

2. BAAQMD does not have guidance on construction modeling, therefore construction equipment parameters used are based on BAAQMD's San Francisco Community Risk Reduction Plan-Health Risk Assessment (CRRP-HRA). According to the CRRP-HRA methodology, release height of a modeled area source representing construction equipment was set to 5 meters. On-road truck release height is based on USEPA haul road guidance, assuming vehicle heights of 3 meters for heavy-duty vehicles.

3. According to USEPA's AERMOD guidance, initial vertical dimension of the modeled construction equipment area sources is the release height divided by 4.3. Vehicle initial vertical dimension is based on USEPA's haul road guidance, assuming vehicle heights 3 meters for heavy-duty vehicles.

4. Initial lateral dimension for the construction equipment is the center-to-center spacing divided by 2.15, consistent with AERMOD guidance. Initial lateral dimension for on-road vehicles is based on USEPA's haul road guidance. Construction hauling routes are assumed to consist of a single lane; thus, the initial lateral dimension is based on vehicle width of 3 meters.

5. Construction off-road equipment is modeled as adjacent volume sources covering the relevant construction work areas, consistent with the LST guidance.

6. Construction fugitive dust will be modeled as one area source covering the parcel under construction. According to the 2012 San Francisco Community HRA methodology, the initial vertical dimension of the modeled fugitive dust area source will be set to 1 meter and the release height will be set to 0 meters consistent with SCAQMD LST methods.

Abbreviations:

AERMOD - Atmospheric Dispersion MODeling

BAAQMD - Bay Area Air Quality Management District

CEQA - California Environmental Quality Act

CRRP - Community Risk Reduction Plan

HRA - health risk assessment

LST - Localized Significance Threshold

m - meter

USEPA - United States Environmental Protection Agency

References:

Bay Area Air Quality Management District (BAAQMD). 2012. The San Francisco Community Risk Reduction Plan: Technical Support Documentation. December. Available at: http://www.gsweventcenter.com/Draft_SEIR_References%5C2012_12_BAAQMD_SF_CRRP_Methods_and_Findings_v9.pdf

BAAQMD. 2017. California Environmental Quality Act: Air Quality Guidelines. May. Available at: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed November 2018.

South Coast Air Quality Management District. 2008. Final Localized Significance Threshold Methodology. July. Available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2

United States Environmental Protection Agency (USEPA). 2012. Haul Road Workgroup Final Report Submission to EPA-OAQPS. U.S. EPA Office of Air Quality and Planning Standards, Research Triangle Park, North Carolina. Available at: https://www3.epa.gov/scram001/reports/Haul_Road_Workgroup-Final_Report_Package-20120302.pdf

USEPA. 2019. User's Guide for the AMS/EPA Regulatory Model (AERMOD). U.S. EPA Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina. Available at: https://www3.epa.gov/ttn/scram/models/aermod/aermod_userguide.pdf

Table 11

Exposure Parameters

Bridle Gate

Brentwood, California

Receptor Type	Receptor Age Group	Exposure Parameters						
		Daily Breathing Rate (DBR)[1]	Exposure Duration (ED)	Fraction of Time at Home (FAH)[2]	Exposure Frequency (EF)[3]	Averaging Time (AT)	Age Sensitivity Factor (ASF)[4]	Intake Factor, Inhalation (IF_{inh})
		[L/kg-day]	[years]	[unitless]	[days/year]	[days]	[unitless]	[m^3/kg-day]
Off-Site Child Resident[5]	3rd Trimester	361	0.50	1	350	25,550	10	0.025
	Age 0-<2 Years	1,090	2.00				10	0.30
	Age 2-<16 Years	572	4.7				3	0.11

Notes:

1. Daily breathing rates reflect default breathing rates from OEHHA 2015 and BAAQMD 2016 as follows: 95th percentile 24-hour daily breathing rate for 3rd trimester and age 0-<2 years; 80th percentile for ages 2 years and older (per BAAQMD 2016 and 2020 Health Risk Assessment (HRA) Modeling Guidelines).

2. Fraction of time spent at home is conservatively assumed to be 1 (i.e. 24 hours/day) based on the recommendation from BAAQMD (BAAQMD 2016) and OEHHA (OEHHA 2015).

3. Exposure frequency reflects default residential exposure frequency from OEHHA 2015.

4. Based on OEHHA 2015. Age sensitivity factors are unitless.

5. The nearby community includes a number of daycares. While OEHHA (2015) recommends that a Tier 1 evaluation of a daycare scenario assume eight hours of moderate intensity activities, USEPA (2009) characterizes daycares as ranging from a minimum of sedentary and passive activities to a maximum of light intensity activity, with an average of light intensity activities (see USEPA Appendix B, page B-7). According to USEPA (2009), an average child (0-6 years old) spends approximately 14.5 hour/day in sedentary/passive activities (including sleeping or napping), 5.8 hours/day in light intensity activities, 3.7 hours/day in moderate intensity activities, and 0.2 hours/day in high intensity activities. Under the construction scenario, assuming most of the sleeping occurs during the night hours, the exposure activities and breathing rate will be the same for the resident child and the daycare child. As construction activities occur during the day, the construction exposures and risks will be the same for the two receptor types assuming they are both present for the construction time and duration. As the daily construction duration can span more or different hours than the 8-hour daycare exposure time, the residential scenario is more conservative.

Calculation:

IF_{inh} = DBR * FAH * EF * ED * ASF * CF / AT

CF = 0.001 (m^3/L)

Abbreviations:

ASF - age sensitivity factor

AT - averaging time

BAAQMD - Bay Area Air Quality Management District

DBR - daily breathing rate

ED - exposure duration

EF - exposure frequency

FAH - fraction of time at home

IF_{inh} - intake factor

kg - kilogram

L - liter

m^3 - cubic meter

OEHHA - Office of Environmental Health Hazard Assessment

References:

BAAQMD. 2016. Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines. January. Available online at: https://www.baaqmd.gov/~/media/files/planning-and-research/permit-modeling/hra_guidelines_12_7_2016_clean-pdf.pdf?la=en

BAAQMD. 2020. Health Risk Assessment (HRA) Modeling Protocol. Available here: https://www.baaqmd.gov/~/media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol-pdf.pdf?la=en

OEHHA. 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. February. Available online at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

Table 12

Toxicity Values

Bridle Gate

Brentwood, California

Chemical[1]	Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	Chronic REL ($\mu g/m^3$)
Diesel PM	1.1	5

Notes:

1. Chemicals presented in this table reflect air toxic contaminants in the proposed fuel types that are expected from off-road equipment and on-road truck trips.

Abbreviations:

$\mu g/m^3$ - micrograms per cubic meter

ARB - Air Resources Board

Cal/EPA - California Environmental Protection Agency

$(mg/kg\text{-}day)^{-1}$ - per milligram per kilogram-day

OEHHA - Office of Environmental Health Hazard Assessment

PM - particulate matter

REL - reference exposure level

Reference:

Cal/EPA. 2015. OEHHA/ARB Consolidated Table of Approved Risk Assessment Health Values. May 13. Available online at: https://ww3.arb.ca.gov/toxics/healthval/contable.pdf

Table 13

Summary of Health Impacts from Project Construction and Operation at the MEIR

Bridle Gate

Brentwood, California

Source	$PM_{2.5}$ Concentration ($\mu g/m^3$, Annual Average)	Lifetime Excess Cancer Risk (in a million)[1]	Non-Cancer Hazard Index (unitless)[2]
Construction Equipment	0.017	7.0	0.0036
On-Road Trucks[3]	0	0.0046	0
Project Traffic[4]	0.0092	0.77	--
Project Total/Maximum[5]	**0.017**	**7.8**	**0.0036**
BAAQMD Thresholds[6]	**0.30**	**10**	**1.0**

Notes:

1. Excess lifetime cancer risks are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens. The estimated risk is expressed as a unitless probability. The cancer risk attributed to the emissions associated with the Project was calculated based on the modeled annual average DPM concentration, the intake factor for a resident child, the Cancer Potency Factors (CPF) for Diesel Particulate Matter (DPM), and the Age Sensitivity Factors (ASF).
2. The potential for exposure to result in adverse chronic noncancer effects is evaluated by comparing the estimated annual average air concentration to the noncancer chronic Reference Exposure Level (REL) for each chemical. When calculated for a single chemical, the comparison yields a ratio termed a chronic hazard quotient (HQ). To evaluate the potential for adverse chronic noncancer health effects from simultaneous exposure to multiple chemicals, the chronic hazard quotients for all chemicals are summed, yielding a hazard index (HI).
3. PM2.5 concentration and Non-Cancer Hazard Index represent annual values in the maximum year (2025 for PM2.5 and 2026 for the Non-Cancer Hazard Index). Cancer risk is cumulative over a lifetime. There are no emissions from hauling or vendor trucks during 2025 or 2026.
4. Because State Route (SR) 4 is adjacent to the Project, all Project traffic impacts and cumulative highway impacts are assumed to come from SR-4. The BAAQMD cumulative analysis raster tool for highway sources appears to have modeled Brentwood Boulevard (a parallel road due east of SR-4) instead of SR-4. To estimate impacts from SR-4 for the Project traffic health screening analysis, Ramboll performed a scaling analysis using the impacts modeled in the BAAQMD highway raster tool from Brentwood Boulevard. Ramboll identified the distance from the MEIR to SR-4 and determined the average impact at the equivalent distance from Brentwood Boulevard. Impacts were then scaled using Project traffic, assuming Brentwood Boulevard was modeled using 30,000 annual average daily trips (AADT). Project traffic was estimated in the DEIR to be 15,116 AADT. The BAAQMD cumulative analysis cancer risk raster tool assumes a 30-year lifetime exposure beginning in the third trimester, so this analysis is conservative in adding the construction impacts to the traffic impacts when in reality, the construction MEIR would not be exposed to Project traffic until after construction was complete.
5. Cancer risk is a cumulative lifetime impact, so construction and operation are added together. For PM2.5 concentration and chronic HI, the maximum of construction or operation is presented since these impacts will not occur concurrently.

Abbreviations:

BAAQMD - Bay Area Air Quality Management District

CEQA - California Environmental Quality Act

PM - particulate matter

$\mu g/m^3$ - microgram per cubic meter

Reference:

BAAQMD. 2017. California Environmental Quality Act Air Quality Guidelines. May. Available at: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

Table 14

Summary of Cumulative Health Impacts at the MEIR

Bridle Gate

Brentwood, California

Source		$PM_{2.5}$ Concentration ($\mu g/m^3$, Annual Average)	Lifetime Excess Cancer Risk (in a million)[1]	Non-Cancer Hazard Index[2]
Project	Project Construction[3]	0.017	7.0	0.0036
	Project Traffic[4]	0.0092	0.77	--
Nearby Cumulative Sources[5]	Highway Sources[4]	0.054	4.5	--
	Major Roadway Sources	0.0070	0.39	--
	Railway Sources	6.5E-05	0.041	--
	Nearby Stationary Sources	4.0E-04	0.19	4.0E-04
	Powerdrive Project[6]	0.30	10	--
Cumulative Total		**0.38**	**23**	**0.0040**

Notes:

1. Excess lifetime cancer risks are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens. The estimated risk is expressed as a unitless probability. The cancer risk attributed to the emissions associated with the Project was calculated based on the modeled annual average DPM concentration, the intake factor for a resident child, the Cancer Potency Factors (CPF) for Diesel Particulate Matter (DPM), and the Age Sensitivity Factors (ASF).

2. The potential for exposure to result in adverse chronic noncancer effects is evaluated by comparing the estimated annual average air concentration to the noncancer chronic Reference Exposure Level (REL) for each chemical. When calculated for a single chemical, the comparison yields a ratio termed a chronic hazard quotient (HQ). To evaluate the potential for adverse chronic noncancer health effects from simultaneous exposure to multiple chemicals, the chronic hazard quotients for all chemicals are summed, yielding a hazard index (HI).

3. PM2.5 concentration and Non-Cancer Hazard Index represent annual values in the maximum year (2025 for PM2.5 and 2026 for the Non-Cancer Hazard Index). Cancer risk is cumulative over a lifetime. The addition of Project traffic to the Project construction impacts is conservative, as it assumes that the MEIR is exposed to both construction and full buildout operational emissions simultaneously starting with age third trimester.

4. Because State Route (SR) 4 is adjacent to the Project, all Project traffic impacts and cumulative highway impacts are assumed to come from SR-4. The BAAQMD cumulative analysis raster tool for highway sources appears to have modeled Brentwood Boulevard (a parallel road due east of SR-4) instead of SR-4. To estimate impacts from SR-4 for the Project and highway cumulative analyses, Ramboll performed a scaling analysis using the impacts modeled in the BAAQMD highway raster tool from Brentwood Boulevard. Ramboll identified the distance from the MEIR to SR-4 and determined the average impact at the equivalent distance from Brentwood Boulevard. Impacts were then scaled using Project traffic and SR-4 traffic, assuming Brentwood Boulevard was modeled using 30,000 annual average daily trips (AADT). SR-4 traffic was assumed to be 89,000 AADT (Caltrans 2014) and Project traffic was estimated in the DEIR to be 15,116 AADT. The BAAQMD cumulative analysis cancer risk raster tool assumes a 30-year lifetime exposure beginning in the third trimester, so this analysis is conservative in adding the construction impacts to the traffic impacts when in reality, the construction MEIR would not be exposed to Project traffic until after construction was complete.

5. Nearby cumulative sources are estimated based on BAAQMD cumulative analysis tools. Highway, roadway, and railway source impacts are estimated from the BAAQMD cumulative raster tools for PM2.5 concentration and lifetime excess cancer risk. These tools are not available for non-cancer hazard index. The nearby stationary source impact is based on the BAAQMD stationary source screening tool.

6. The Powerdrive Project published a Negative Declaration that indicates that air quality impacts will be less than significant (https://www.contracosta.ca.gov/DocumentCenter/View/64854/LP19-2019-Notice-of-Public-Reviewpdf-WEB-VERSION). The estimated cancer risk and PM2.5 impacts are conservative and likely to be much lower, given the MEIR location is more than 1,000 feet east of the Powerdrive Project close to SR-4.

Abbreviations:

BAAQMD - Bay Area Air Quality Management District

CEQA - California Environmental Quality Act

PM - particulate matter

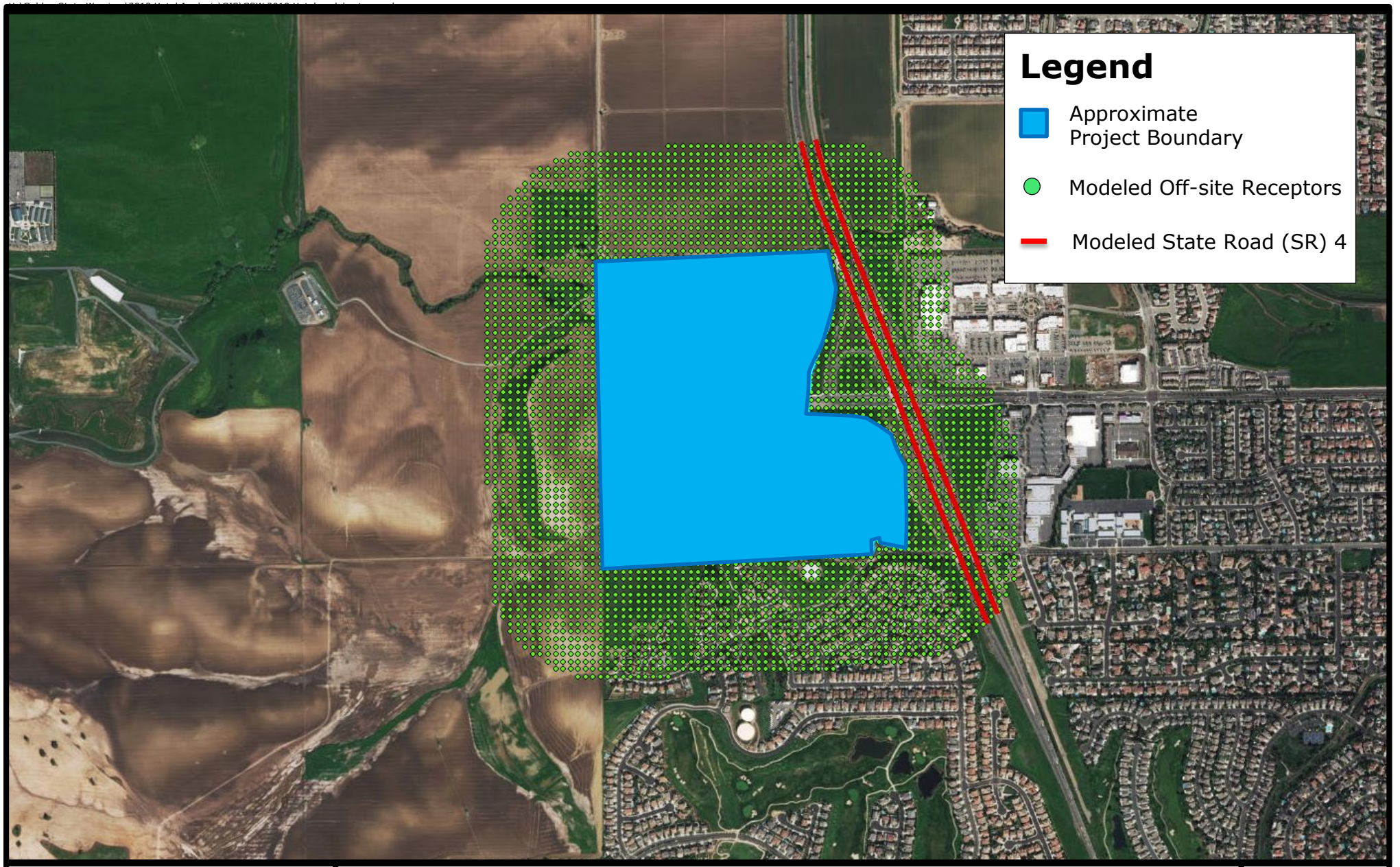
$\mu g/m^3$ - microgram per cubic meter

Reference:

BAAQMD. 2017. California Environmental Quality Act Air Quality Guidelines. May. Available at: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

Caltrans. 2014. 2014 Traffic Volumes on California State Highways. Available at: https://dot.ca.gov/-/media/dot-media/programs/traffic-operations/documents/census/aadt/f0017652-2014-aadt-volumes.pdf

FIGURE



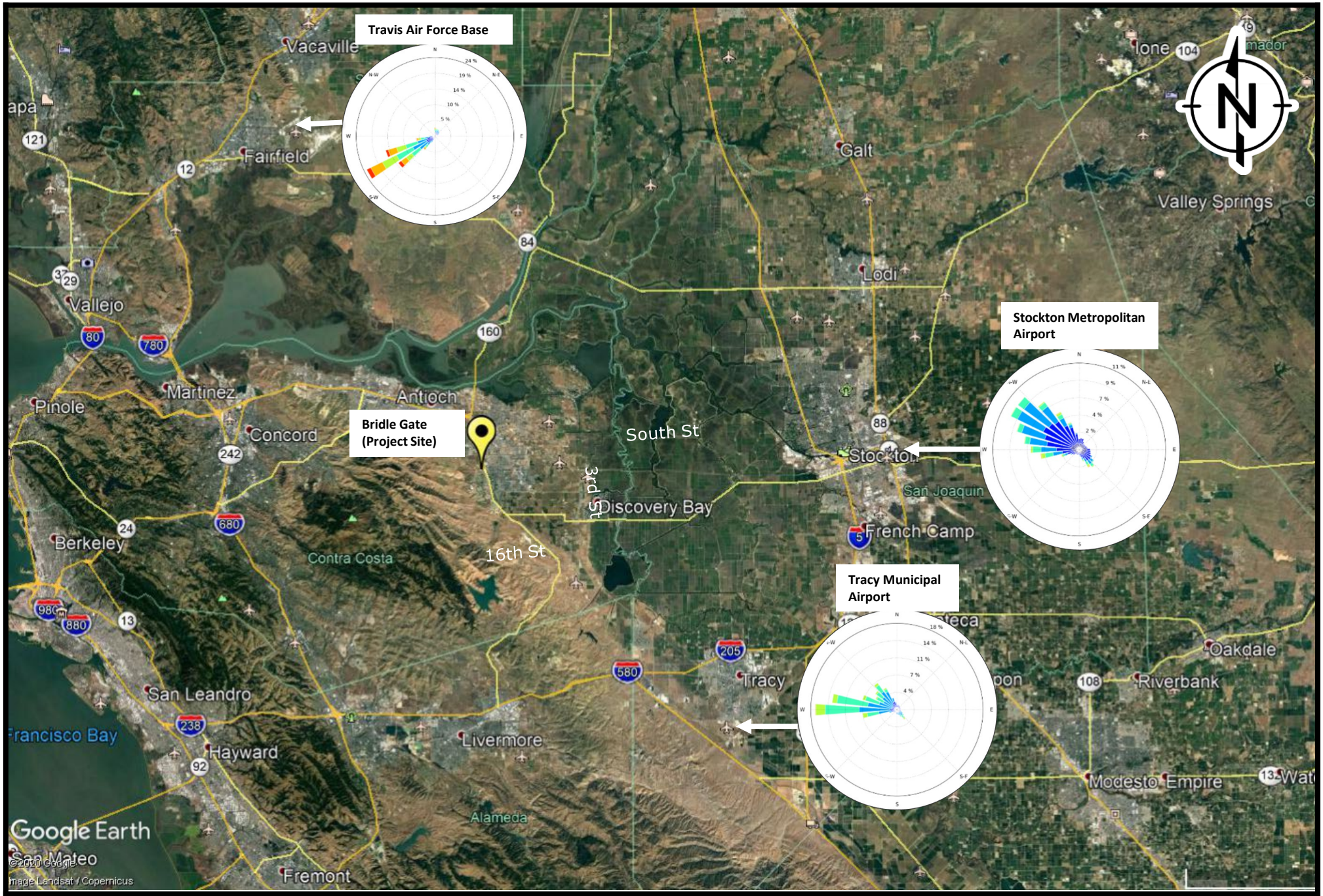
RAMBOLL

Project Location

Bridle Gate
Brentwood, California

FIGURE
1

DRAFTED BY: GM | DATE: 7/10/2020 | PROJECT:



RAMBOLL

Meteorological Data Options for Modeling

Bridle Gate
Brentwood, California

FIGURE
2

DRAFTED BY: GM | DATE: 7/10/2020 | PROJECT:

ATTACHMENT A: AERMOD MODEL

AERMOD Input File

```
CO STARTING
CO TITLEONE DB Bridlegate
CO TITLETWO LPK 20200618
CO MODELOPT CONC DFAULT
CO AVERTIME PERIOD
CO URBANOPT 64474 Brentwood_2019_Est
CO POLLUTID ALL
CO FLAGPOLE 1.8
CO RUNORNOT RUN
CO FINISHED


** Sources
SO STARTING
SO ELEVUNIT METERS
SO INCLUDED include/haul.srcs
SO EMISFACT SB_001-SB_152   HROFDY 7*0.0 10*2.4 7*0.0
SO EMISFACT NB_001-NB_155   HROFDY 7*0.0 10*2.4 7*0.0
SO INCLUDED include/conarea.vols.srcs
SO EMISFACT ON_0001-ON_1355   HROFDY 7*0.0 10*2.4 7*0.0
SO URBANSRC ALL
SO SRCGROUP SR4_SB  SB_001-SB_152
SO SRCGROUP SR4_NB  NB_001-NB_155
SO SRCGROUP CONAREA  ON_0001-ON_1355
SO FINISHED
```

AERMOD Input File

```
** Receptors
RE STARTING
RE INCLUDED ../aermap/aermap.recs/offsite.recs.xy.rec
RE FINISHED


** Meteorology
ME STARTING
ME SURFFILE ../aermet/Stockton_2013-2017.SFC
ME PROFFILE ../aermet/Stockton_2013-2017.PFL
ME PROFBASE 1.5 METERS
ME SURFDATA 23237 2013
ME UAIRDATA 23230 2013
ME FINISHED


NO ECHO


** Output files
OU STARTING
OU PLOTFILE PERIOD SR4_SB  SR4_SB.plot
OU PLOTFILE PERIOD SR4_NB  SR4_NB.plot
OU PLOTFILE PERIOD CONAREA  CONAREA.plot
OU FINISHED
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Modeled Receptors

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** AERMAP - VERSION 18081                                  06/12/20
**                                                         11:05:41
** DB Bridle Gate Receptors
**
** A total of       1  NED files were used
** A total of    4484  receptors were processed
** DOMAINXY 608960 4199060 10 611360 4201480 10
** ANCHORXY 610120 4200250 610120 4200250 10 4
** TERRHGTS EXTRACT


RE ELEVUNIT METERS
   DISCCART     609460.00   4200080.00      50.18     100.02
   DISCCART     609460.00   4200100.00      49.95     100.02
   DISCCART     609460.00   4200120.00      49.82     100.02
   DISCCART     609460.00   4200140.00      49.65     100.02
   DISCCART     609460.00   4200160.00      49.62     100.02
   DISCCART     609460.00   4200180.00      49.50     100.02
   DISCCART     609460.00   4200200.00      49.49     100.02
   DISCCART     609460.00   4200220.00      49.50     100.02
   DISCCART     609460.00   4200240.00      49.51     100.02
   DISCCART     609460.00   4200260.00      49.56     100.02
   DISCCART     609460.00   4200280.00      49.56     100.02
   DISCCART     609460.00   4200300.00      49.56     100.02
   DISCCART     609460.00   4200320.00      49.59     100.02
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Modeled Receptors

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   DISCCART     609460.00   4200340.00      49.65     100.02
   DISCCART     609460.00   4200360.00      49.71     100.02
   DISCCART     609460.00   4200380.00      49.77     100.02
   DISCCART     609460.00   4200400.00      49.87     100.02
   DISCCART     609460.00   4200420.00      50.11      99.47
   DISCCART     609460.00   4200440.00      50.36      93.21
   DISCCART     609460.00   4200460.00      50.62      93.21
   DISCCART     609460.00   4200480.00      50.92      86.66
   DISCCART     609460.00   4200500.00      50.92      86.66
   DISCCART     609460.00   4200520.00      50.78      86.66
   DISCCART     609460.00   4200540.00      50.50      86.66
   DISCCART     609460.00   4200560.00      50.18      86.66
   DISCCART     609460.00   4200580.00      49.77      86.66
   DISCCART     609460.00   4200600.00      49.42      86.66
   DISCCART     609460.00   4200620.00      49.38      86.66
   DISCCART     609460.00   4200640.00      49.39      86.41
   DISCCART     609460.00   4200660.00      49.52      49.52
   DISCCART     609460.00   4200680.00      49.58      49.58
   DISCCART     609460.00   4200700.00      49.58      49.58
   DISCCART     609460.00   4200720.00      49.62      49.62
   DISCCART     609480.00   4199760.00      52.71      93.21
   DISCCART     609480.00   4199780.00      51.65      93.21
   DISCCART     609480.00   4199800.00      50.35      93.21
   DISCCART     609480.00   4199820.00      49.86      99.09
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Modeled Receptors

DISCCART	609480.00	4199840.00	49.79	99.52
DISCCART	609480.00	4199860.00	49.97	99.52
DISCCART	609480.00	4199880.00	49.99	99.70
DISCCART	609480.00	4199900.00	50.10	100.02
DISCCART	609480.00	4199920.00	50.20	100.02
DISCCART	609480.00	4199940.00	50.23	100.02
DISCCART	609480.00	4199960.00	50.29	100.02
DISCCART	609480.00	4199980.00	50.18	100.02
DISCCART	609480.00	4200000.00	49.99	100.02
DISCCART	609480.00	4200020.00	49.82	100.02
DISCCART	609480.00	4200040.00	49.65	100.02
DISCCART	609480.00	4200060.00	49.47	100.02
DISCCART	609480.00	4200080.00	49.33	100.02
DISCCART	609480.00	4200100.00	49.26	100.02
DISCCART	609480.00	4200120.00	49.17	100.02
DISCCART	609480.00	4200140.00	49.14	100.02
DISCCART	609480.00	4200160.00	49.08	100.02
DISCCART	609480.00	4200180.00	49.01	100.02
DISCCART	609480.00	4200200.00	49.01	100.02
DISCCART	609480.00	4200220.00	49.07	100.02
DISCCART	609480.00	4200240.00	49.12	100.02
DISCCART	609480.00	4200260.00	49.12	100.02
DISCCART	609480.00	4200280.00	49.20	100.02
DISCCART	609480.00	4200300.00	49.25	100.02

Modeled Receptors

DISCCART	609480.00	4200320.00	49.30	100.02
DISCCART	609480.00	4200340.00	49.42	100.02
DISCCART	609480.00	4200360.00	49.42	100.02
DISCCART	609480.00	4200380.00	49.43	99.73
DISCCART	609480.00	4200400.00	49.51	99.47
DISCCART	609480.00	4200420.00	49.65	93.21
DISCCART	609480.00	4200440.00	49.91	93.21
DISCCART	609480.00	4200460.00	50.24	93.21
DISCCART	609480.00	4200480.00	50.60	92.67
DISCCART	609480.00	4200500.00	50.83	86.66
DISCCART	609480.00	4200520.00	50.91	86.66
DISCCART	609480.00	4200540.00	50.67	86.66
DISCCART	609480.00	4200560.00	50.40	86.66
DISCCART	609480.00	4200580.00	50.06	86.66
DISCCART	609480.00	4200600.00	49.66	86.66
DISCCART	609480.00	4200620.00	49.42	86.66
DISCCART	609480.00	4200640.00	49.38	86.41
DISCCART	609480.00	4200660.00	49.38	49.38
DISCCART	609480.00	4200680.00	49.42	49.42
DISCCART	609480.00	4200700.00	49.42	49.42
DISCCART	609480.00	4200720.00	49.48	49.48
DISCCART	609480.00	4200740.00	49.48	49.48
DISCCART	609480.00	4200760.00	49.48	49.48
DISCCART	609480.00	4200780.00	49.48	49.48

Modeled Receptors

DISCCART	609500.00	4199720.00	54.23	93.21
DISCCART	609500.00	4199740.00	53.98	93.21
DISCCART	609500.00	4199760.00	53.47	93.21
DISCCART	609500.00	4199780.00	51.83	93.21
DISCCART	609500.00	4199800.00	50.38	93.21
DISCCART	609500.00	4199820.00	49.75	93.21
DISCCART	609500.00	4199840.00	49.51	99.09
DISCCART	609500.00	4199860.00	49.47	99.47
DISCCART	609500.00	4199880.00	49.44	99.52
DISCCART	609500.00	4199900.00	49.49	99.52
DISCCART	609500.00	4199920.00	49.56	100.02
DISCCART	609500.00	4199940.00	49.57	100.02
DISCCART	609500.00	4199960.00	49.53	100.02
DISCCART	609500.00	4199980.00	49.43	100.02
DISCCART	609500.00	4200000.00	49.32	100.02
DISCCART	609500.00	4200020.00	49.21	100.02
DISCCART	609500.00	4200040.00	49.08	100.02
DISCCART	609500.00	4200060.00	49.04	100.02
DISCCART	609500.00	4200080.00	49.08	100.02
DISCCART	609500.00	4200100.00	49.22	100.02
DISCCART	609500.00	4200120.00	49.58	100.02
DISCCART	609500.00	4200140.00	49.96	100.02
DISCCART	609500.00	4200160.00	50.49	100.02
DISCCART	609500.00	4200180.00	50.98	100.02

Modeled Receptors

DISCCART	609500.00	4200200.00	51.19	100.02
DISCCART	609500.00	4200220.00	51.29	100.02
DISCCART	609500.00	4200240.00	51.33	100.02
DISCCART	609500.00	4200260.00	51.32	100.02
DISCCART	609500.00	4200280.00	51.36	100.02
DISCCART	609500.00	4200300.00	51.04	99.70
DISCCART	609500.00	4200320.00	50.52	99.70
DISCCART	609500.00	4200340.00	49.67	99.70
DISCCART	609500.00	4200360.00	49.23	99.67
DISCCART	609500.00	4200380.00	49.31	99.47
DISCCART	609500.00	4200400.00	49.38	93.21
DISCCART	609500.00	4200420.00	49.44	93.21
DISCCART	609500.00	4200440.00	49.55	93.21
DISCCART	609500.00	4200460.00	49.83	93.21
DISCCART	609500.00	4200480.00	50.25	93.21
DISCCART	609500.00	4200500.00	50.53	86.66
DISCCART	609500.00	4200520.00	50.69	86.66
DISCCART	609500.00	4200540.00	50.58	86.66
DISCCART	609500.00	4200560.00	50.36	86.66
DISCCART	609500.00	4200580.00	50.15	86.66
DISCCART	609500.00	4200600.00	49.84	86.66
DISCCART	609500.00	4200620.00	49.50	86.66
DISCCART	609500.00	4200640.00	49.32	86.59
DISCCART	609500.00	4200660.00	49.30	85.41

Modeled Receptors

DISCCART	609500.00	4200680.00	49.25	49.25
DISCCART	609500.00	4200700.00	49.22	49.22
DISCCART	609500.00	4200720.00	49.28	49.28
DISCCART	609500.00	4200740.00	49.32	49.32
DISCCART	609500.00	4200760.00	49.32	49.32
DISCCART	609500.00	4200780.00	49.32	49.32
DISCCART	609500.00	4200800.00	49.32	49.32
DISCCART	609500.00	4200820.00	49.32	49.32
DISCCART	609520.00	4199680.00	55.24	92.69
DISCCART	609520.00	4199700.00	55.13	93.13
DISCCART	609520.00	4199720.00	55.10	93.21
DISCCART	609520.00	4199740.00	54.97	93.21
DISCCART	609520.00	4199760.00	54.31	93.21
DISCCART	609520.00	4199780.00	53.16	93.21
DISCCART	609520.00	4199800.00	51.76	93.21
DISCCART	609520.00	4199820.00	50.81	93.21
DISCCART	609520.00	4199840.00	49.97	93.21
DISCCART	609520.00	4199860.00	49.61	94.53
DISCCART	609520.00	4199880.00	49.29	99.09
DISCCART	609520.00	4199900.00	49.21	99.52
DISCCART	609520.00	4199920.00	49.22	99.52
DISCCART	609520.00	4199940.00	49.21	99.52
DISCCART	609520.00	4199960.00	49.21	100.02
DISCCART	609520.00	4199980.00	49.83	100.02

Modeled Receptors

DISCCART	609520.00	4200000.00	50.54	100.02
DISCCART	609520.00	4200020.00	51.22	99.70
DISCCART	609520.00	4200040.00	52.03	99.52
DISCCART	609520.00	4200060.00	52.83	99.52
DISCCART	609520.00	4200080.00	53.58	99.52
DISCCART	609520.00	4200100.00	54.22	99.47
DISCCART	609520.00	4200120.00	55.05	99.09
DISCCART	609520.00	4200140.00	56.09	93.21
DISCCART	609520.00	4200160.00	57.02	93.21
DISCCART	609520.00	4200180.00	57.46	93.21
DISCCART	609520.00	4200200.00	57.87	93.21
DISCCART	609520.00	4200220.00	58.10	93.21
DISCCART	609520.00	4200240.00	58.29	93.21
DISCCART	609520.00	4200260.00	58.59	93.21
DISCCART	609520.00	4200280.00	58.81	93.21
DISCCART	609520.00	4200300.00	58.15	93.21
DISCCART	609520.00	4200320.00	56.65	93.21
DISCCART	609520.00	4200340.00	55.11	93.21
DISCCART	609520.00	4200360.00	52.46	93.21
DISCCART	609520.00	4200380.00	49.98	93.21
DISCCART	609520.00	4200400.00	49.35	93.21
DISCCART	609520.00	4200420.00	49.33	93.21
DISCCART	609520.00	4200440.00	49.45	93.21
DISCCART	609520.00	4200460.00	49.58	93.21

Modeled Receptors

DISCCART	609520.00	4200480.00	49.84	93.21
DISCCART	609520.00	4200500.00	50.19	92.26
DISCCART	609520.00	4200520.00	50.43	86.66
DISCCART	609520.00	4200540.00	50.47	86.66
DISCCART	609520.00	4200560.00	50.28	86.66
DISCCART	609520.00	4200580.00	50.06	86.66
DISCCART	609520.00	4200600.00	49.79	86.66
DISCCART	609520.00	4200620.00	49.49	86.66
DISCCART	609520.00	4200640.00	49.28	86.59
DISCCART	609520.00	4200660.00	49.25	86.21
DISCCART	609520.00	4200680.00	49.18	49.18
DISCCART	609520.00	4200700.00	49.11	49.11
DISCCART	609520.00	4200720.00	49.12	49.12
DISCCART	609520.00	4200740.00	49.12	49.12
DISCCART	609520.00	4200760.00	49.12	49.12
DISCCART	609520.00	4200780.00	49.12	49.12
DISCCART	609520.00	4200800.00	49.12	49.12
DISCCART	609520.00	4200820.00	49.11	49.11
DISCCART	609520.00	4200840.00	49.12	49.12
DISCCART	609540.00	4199660.00	56.50	92.69
DISCCART	609540.00	4199680.00	56.40	92.69
DISCCART	609540.00	4199700.00	56.19	93.13
DISCCART	609540.00	4199720.00	55.92	93.21
DISCCART	609540.00	4199740.00	55.57	93.21

Modeled Receptors

DISCCART	609540.00	4199760.00	55.04	93.21
DISCCART	609540.00	4199780.00	54.15	93.21
DISCCART	609540.00	4199800.00	53.08	93.21
DISCCART	609540.00	4199820.00	51.99	93.21
DISCCART	609540.00	4199840.00	51.19	93.21
DISCCART	609540.00	4199860.00	50.58	93.21
DISCCART	609540.00	4199880.00	49.95	93.21
DISCCART	609540.00	4199900.00	49.73	93.82
DISCCART	609540.00	4199920.00	50.15	97.64
DISCCART	609540.00	4199940.00	51.67	93.21
DISCCART	609540.00	4199960.00	53.74	93.21
DISCCART	609540.00	4199980.00	55.21	93.21
DISCCART	609540.00	4200000.00	56.72	93.21
DISCCART	609540.00	4200020.00	58.19	93.21
DISCCART	609540.00	4200040.00	59.23	93.21
DISCCART	609540.00	4200060.00	60.18	93.21
DISCCART	609540.00	4200080.00	61.28	93.21
DISCCART	609540.00	4200100.00	62.17	93.21
DISCCART	609540.00	4200120.00	62.67	93.21
DISCCART	609540.00	4200140.00	63.13	93.21
DISCCART	609540.00	4200160.00	63.56	93.21
DISCCART	609540.00	4200180.00	64.27	93.21
DISCCART	609540.00	4200200.00	66.13	93.21
DISCCART	609540.00	4200220.00	68.50	93.21

Modeled Receptors

DISCCART	609540.00	4200240.00	70.28	93.21
DISCCART	609540.00	4200260.00	70.51	93.21
DISCCART	609540.00	4200280.00	70.25	93.21
DISCCART	609540.00	4200300.00	68.09	93.21
DISCCART	609540.00	4200320.00	64.71	93.21
DISCCART	609540.00	4200340.00	61.52	93.21
DISCCART	609540.00	4200360.00	58.55	93.21
DISCCART	609540.00	4200380.00	55.12	93.21
DISCCART	609540.00	4200400.00	51.43	93.21
DISCCART	609540.00	4200420.00	49.29	93.21
DISCCART	609540.00	4200440.00	49.40	93.21
DISCCART	609540.00	4200460.00	49.49	93.21
DISCCART	609540.00	4200480.00	49.59	93.21
DISCCART	609540.00	4200500.00	49.83	92.76
DISCCART	609540.00	4200520.00	50.09	86.66
DISCCART	609540.00	4200540.00	50.23	86.66
DISCCART	609540.00	4200560.00	50.14	86.66
DISCCART	609540.00	4200580.00	49.94	86.66
DISCCART	609540.00	4200600.00	49.72	86.66
DISCCART	609540.00	4200620.00	49.38	86.66
DISCCART	609540.00	4200640.00	49.28	86.59
DISCCART	609540.00	4200660.00	49.20	86.21
DISCCART	609540.00	4200680.00	49.12	49.12
DISCCART	609540.00	4200700.00	49.06	49.06

Modeled Receptors

DISCCART	609540.00	4200720.00	49.01	49.01
DISCCART	609540.00	4200740.00	48.95	48.95
DISCCART	609540.00	4200760.00	48.92	48.92
DISCCART	609540.00	4200780.00	48.92	48.92
DISCCART	609540.00	4200800.00	48.93	48.93
DISCCART	609540.00	4200820.00	48.94	48.94
DISCCART	609540.00	4200840.00	48.92	48.92
DISCCART	609540.00	4200860.00	48.92	48.92
DISCCART	609560.00	4199640.00	58.26	92.69
DISCCART	609560.00	4199660.00	58.58	92.69
DISCCART	609560.00	4199680.00	58.53	92.69
DISCCART	609560.00	4199700.00	58.18	92.69
DISCCART	609560.00	4199720.00	57.76	93.13
DISCCART	609560.00	4199740.00	57.10	93.21
DISCCART	609560.00	4199760.00	56.19	93.21
DISCCART	609560.00	4199780.00	55.12	93.21
DISCCART	609560.00	4199800.00	54.03	93.21
DISCCART	609560.00	4199820.00	53.03	93.21
DISCCART	609560.00	4199840.00	52.16	93.21
DISCCART	609560.00	4199860.00	51.55	93.21
DISCCART	609560.00	4199880.00	51.22	93.21
DISCCART	609560.00	4199900.00	51.98	93.21
DISCCART	609560.00	4199920.00	54.41	93.21
DISCCART	609560.00	4199940.00	57.26	93.21

Modeled Receptors

DISCCART	609560.00	4199960.00	59.52	93.21
DISCCART	609560.00	4199980.00	61.82	93.21
DISCCART	609560.00	4200000.00	65.13	93.21
DISCCART	609560.00	4200020.00	68.59	93.21
DISCCART	609560.00	4200040.00	70.88	93.21
DISCCART	609560.00	4200060.00	71.60	93.21
DISCCART	609560.00	4200080.00	72.41	93.21
DISCCART	609560.00	4200100.00	73.24	93.21
DISCCART	609560.00	4200120.00	74.02	93.21
DISCCART	609560.00	4200140.00	74.52	93.21
DISCCART	609560.00	4200160.00	75.04	93.21
DISCCART	609560.00	4200180.00	76.56	93.21
DISCCART	609560.00	4200200.00	78.88	93.21
DISCCART	609560.00	4200220.00	80.88	86.66
DISCCART	609560.00	4200240.00	82.54	86.66
DISCCART	609560.00	4200260.00	83.32	86.66
DISCCART	609560.00	4200280.00	83.41	86.66
DISCCART	609560.00	4200300.00	82.17	86.66
DISCCART	609560.00	4200320.00	76.62	86.66
DISCCART	609560.00	4200340.00	70.73	86.66
DISCCART	609560.00	4200360.00	64.43	92.27
DISCCART	609560.00	4200380.00	60.70	93.21
DISCCART	609560.00	4200400.00	56.19	93.21
DISCCART	609560.00	4200420.00	51.65	93.21

Modeled Receptors

DISCCART	609560.00	4200440.00	49.36	93.21
DISCCART	609560.00	4200460.00	49.42	93.21
DISCCART	609560.00	4200480.00	49.49	93.21
DISCCART	609560.00	4200500.00	49.58	93.21
DISCCART	609560.00	4200520.00	49.82	86.66
DISCCART	609560.00	4200540.00	50.01	86.66
DISCCART	609560.00	4200560.00	49.97	86.66
DISCCART	609560.00	4200580.00	49.77	86.66
DISCCART	609560.00	4200600.00	49.53	86.66
DISCCART	609560.00	4200620.00	49.25	86.66
DISCCART	609560.00	4200640.00	49.25	86.66
DISCCART	609560.00	4200660.00	49.13	86.21
DISCCART	609560.00	4200680.00	48.99	48.99
DISCCART	609560.00	4200700.00	48.91	48.91
DISCCART	609560.00	4200720.00	48.90	48.90
DISCCART	609560.00	4200740.00	48.87	48.87
DISCCART	609560.00	4200760.00	48.81	48.81
DISCCART	609560.00	4200780.00	48.80	48.80
DISCCART	609560.00	4200800.00	48.76	48.76
DISCCART	609560.00	4200820.00	48.63	48.63
DISCCART	609560.00	4200840.00	48.63	48.63
DISCCART	609560.00	4200860.00	48.66	48.66
DISCCART	609560.00	4200880.00	48.71	48.71
DISCCART	609580.00	4199620.00	59.73	92.69

Modeled Receptors

DISCCART	609580.00	4199640.00	60.60	92.69
DISCCART	609580.00	4199660.00	61.04	92.69
DISCCART	609580.00	4199680.00	60.93	92.69
DISCCART	609580.00	4199700.00	60.33	92.69
DISCCART	609580.00	4199720.00	59.73	92.69
DISCCART	609580.00	4199740.00	58.96	93.21
DISCCART	609580.00	4199760.00	57.82	93.21
DISCCART	609580.00	4199780.00	56.05	93.21
DISCCART	609580.00	4199800.00	54.78	93.21
DISCCART	609580.00	4199820.00	53.83	93.21
DISCCART	609580.00	4199840.00	53.09	93.21
DISCCART	609580.00	4199860.00	52.54	93.21
DISCCART	609580.00	4199880.00	52.33	93.21
DISCCART	609580.00	4199900.00	53.77	93.21
DISCCART	609580.00	4199920.00	56.57	93.21
DISCCART	609580.00	4199940.00	60.95	93.21
DISCCART	609580.00	4199960.00	66.57	93.21
DISCCART	609580.00	4199980.00	71.34	93.21
DISCCART	609580.00	4200000.00	75.23	93.21
DISCCART	609580.00	4200020.00	78.66	93.21
DISCCART	609580.00	4200040.00	81.32	93.21
DISCCART	609580.00	4200060.00	82.80	93.21
DISCCART	609580.00	4200080.00	83.45	93.21
DISCCART	609580.00	4200100.00	83.86	93.21

Modeled Receptors

DISCCART	609580.00	4200120.00	84.15	93.21
DISCCART	609580.00	4200140.00	84.79	93.21
DISCCART	609580.00	4200160.00	85.51	86.65
DISCCART	609580.00	4200180.00	85.84	85.84
DISCCART	609580.00	4200200.00	85.99	85.99
DISCCART	609580.00	4200220.00	86.12	86.12
DISCCART	609580.00	4200240.00	86.20	86.20
DISCCART	609580.00	4200260.00	85.93	85.93
DISCCART	609580.00	4200280.00	85.62	85.62
DISCCART	609580.00	4200300.00	85.28	85.84
DISCCART	609580.00	4200320.00	83.52	86.21
DISCCART	609580.00	4200340.00	78.91	86.66
DISCCART	609580.00	4200360.00	71.12	86.66
DISCCART	609580.00	4200380.00	65.24	86.66
DISCCART	609580.00	4200400.00	59.94	93.21
DISCCART	609580.00	4200420.00	54.98	93.21
DISCCART	609580.00	4200440.00	50.48	93.21
DISCCART	609580.00	4200460.00	49.06	93.21
DISCCART	609580.00	4200480.00	49.16	93.21
DISCCART	609580.00	4200500.00	49.40	93.21
DISCCART	609580.00	4200520.00	49.50	86.66
DISCCART	609580.00	4200540.00	49.64	86.66
DISCCART	609580.00	4200560.00	49.65	86.66
DISCCART	609580.00	4200580.00	49.52	86.66

Modeled Receptors

DISCCART	609580.00	4200600.00	49.36	86.66
DISCCART	609580.00	4200620.00	49.04	86.66
DISCCART	609580.00	4200640.00	49.08	86.66
DISCCART	609580.00	4200660.00	48.98	86.41
DISCCART	609580.00	4200680.00	48.87	48.87
DISCCART	609580.00	4200700.00	48.73	48.73
DISCCART	609580.00	4200720.00	48.65	48.65
DISCCART	609580.00	4200740.00	48.63	48.63
DISCCART	609580.00	4200760.00	48.62	48.62
DISCCART	609580.00	4200780.00	48.56	48.56
DISCCART	609580.00	4200800.00	48.49	48.49
DISCCART	609580.00	4200820.00	48.48	48.48
DISCCART	609580.00	4200840.00	48.48	48.48
DISCCART	609580.00	4200860.00	48.51	48.51
DISCCART	609580.00	4200880.00	48.53	48.53
DISCCART	609580.00	4200900.00	48.57	48.57
DISCCART	609600.00	4199620.00	61.78	92.69
DISCCART	609600.00	4199640.00	63.80	92.69
DISCCART	609600.00	4199660.00	64.84	92.69
DISCCART	609600.00	4199680.00	64.75	92.69
DISCCART	609600.00	4199700.00	63.77	92.69
DISCCART	609600.00	4199720.00	62.39	92.69
DISCCART	609600.00	4199740.00	61.11	92.69
DISCCART	609600.00	4199760.00	59.73	93.21

Modeled Receptors

DISCCART	609600.00	4199780.00	57.59	93.21
DISCCART	609600.00	4199800.00	55.56	93.21
DISCCART	609600.00	4199820.00	54.70	93.21
DISCCART	609600.00	4199840.00	54.03	93.21
DISCCART	609600.00	4199860.00	53.43	93.21
DISCCART	609600.00	4199880.00	52.89	93.21
DISCCART	609600.00	4199900.00	54.40	93.21
DISCCART	609600.00	4199920.00	58.12	93.21
DISCCART	609600.00	4199940.00	63.83	93.21
DISCCART	609600.00	4199960.00	70.02	93.21
DISCCART	609600.00	4199980.00	75.27	93.21
DISCCART	609600.00	4200000.00	80.91	93.21
DISCCART	609600.00	4200020.00	86.19	93.21
DISCCART	609600.00	4200040.00	89.40	93.21
DISCCART	609600.00	4200060.00	91.08	93.21
DISCCART	609600.00	4200080.00	91.07	93.21
DISCCART	609600.00	4200100.00	89.10	93.21
DISCCART	609600.00	4200120.00	88.17	93.21
DISCCART	609600.00	4200140.00	86.96	92.26
DISCCART	609600.00	4200160.00	85.75	85.75
DISCCART	609600.00	4200180.00	85.03	85.03
DISCCART	609600.00	4200200.00	84.57	84.57
DISCCART	609600.00	4200220.00	84.36	84.36
DISCCART	609600.00	4200240.00	84.09	86.51

Modeled Receptors

DISCCART	609600.00	4200260.00	83.62	86.51
DISCCART	609600.00	4200280.00	83.12	86.66
DISCCART	609600.00	4200300.00	82.54	86.59
DISCCART	609600.00	4200320.00	81.69	86.41
DISCCART	609600.00	4200340.00	80.51	86.21
DISCCART	609600.00	4200360.00	76.72	86.66
DISCCART	609600.00	4200380.00	70.20	86.66
DISCCART	609600.00	4200400.00	63.52	86.66
DISCCART	609600.00	4200420.00	57.57	93.21
DISCCART	609600.00	4200440.00	52.67	93.21
DISCCART	609600.00	4200460.00	48.96	93.21
DISCCART	609600.00	4200480.00	47.93	93.21
DISCCART	609600.00	4200500.00	49.03	93.21
DISCCART	609600.00	4200520.00	49.12	92.27
DISCCART	609600.00	4200540.00	49.23	86.66
DISCCART	609600.00	4200560.00	49.24	86.66
DISCCART	609600.00	4200580.00	49.19	86.66
DISCCART	609600.00	4200600.00	48.85	86.66
DISCCART	609600.00	4200620.00	48.75	86.66
DISCCART	609600.00	4200640.00	48.75	86.66
DISCCART	609600.00	4200660.00	48.66	86.41
DISCCART	609600.00	4200680.00	48.53	48.53
DISCCART	609600.00	4200700.00	48.42	48.42
DISCCART	609600.00	4200720.00	48.39	48.39

Modeled Receptors

DISCCART	609600.00	4200740.00	48.31	48.31
DISCCART	609600.00	4200760.00	48.30	48.30
DISCCART	609600.00	4200780.00	48.31	48.31
DISCCART	609600.00	4200800.00	48.29	48.29
DISCCART	609600.00	4200820.00	48.31	48.31
DISCCART	609600.00	4200840.00	48.31	48.31
DISCCART	609600.00	4200860.00	48.31	48.31
DISCCART	609600.00	4200880.00	48.25	48.25
DISCCART	609600.00	4200900.00	48.23	48.23
DISCCART	609600.00	4200920.00	48.29	48.29
DISCCART	609620.00	4199600.00	62.12	92.69
DISCCART	609620.00	4199620.00	65.05	92.69
DISCCART	609620.00	4199640.00	67.85	92.69
DISCCART	609620.00	4199660.00	69.35	92.69
DISCCART	609620.00	4199680.00	69.88	92.69
DISCCART	609620.00	4199700.00	70.62	92.69
DISCCART	609620.00	4199720.00	69.68	92.69
DISCCART	609620.00	4199740.00	65.40	92.69
DISCCART	609620.00	4199760.00	61.76	93.21
DISCCART	609620.00	4199780.00	59.26	93.21
DISCCART	609620.00	4199800.00	57.00	93.21
DISCCART	609620.00	4199820.00	55.75	93.21
DISCCART	609620.00	4199840.00	55.12	93.21
DISCCART	609620.00	4199860.00	54.50	93.21

Modeled Receptors

DISCCART	609620.00	4199880.00	53.61	93.21
DISCCART	609620.00	4199900.00	54.44	93.21
DISCCART	609620.00	4199920.00	59.19	93.21
DISCCART	609620.00	4199940.00	65.24	93.21
DISCCART	609620.00	4199960.00	71.30	93.21
DISCCART	609620.00	4199980.00	76.88	93.21
DISCCART	609620.00	4200000.00	83.23	93.21
DISCCART	609620.00	4200020.00	87.71	93.21
DISCCART	609620.00	4200040.00	90.91	92.45
DISCCART	609620.00	4200060.00	92.80	92.80
DISCCART	609620.00	4200080.00	92.81	92.81
DISCCART	609620.00	4200100.00	91.58	91.58
DISCCART	609620.00	4200120.00	88.60	92.76
DISCCART	609620.00	4200140.00	86.01	93.21
DISCCART	609620.00	4200160.00	84.41	92.76
DISCCART	609620.00	4200180.00	82.78	92.76
DISCCART	609620.00	4200200.00	81.86	86.23
DISCCART	609620.00	4200220.00	81.33	86.51
DISCCART	609620.00	4200240.00	80.82	86.66
DISCCART	609620.00	4200260.00	80.54	86.66
DISCCART	609620.00	4200280.00	80.20	86.66
DISCCART	609620.00	4200300.00	79.68	86.66
DISCCART	609620.00	4200320.00	79.24	86.59
DISCCART	609620.00	4200340.00	78.69	86.41

Modeled Receptors

DISCCART	609620.00	4200360.00	76.88	86.41
DISCCART	609620.00	4200380.00	73.22	86.66
DISCCART	609620.00	4200400.00	67.27	86.66
DISCCART	609620.00	4200420.00	59.46	92.27
DISCCART	609620.00	4200440.00	54.14	93.21
DISCCART	609620.00	4200460.00	49.45	93.21
DISCCART	609620.00	4200480.00	47.26	93.21
DISCCART	609620.00	4200500.00	48.69	93.21
DISCCART	609620.00	4200520.00	48.66	92.76
DISCCART	609620.00	4200540.00	48.78	86.66
DISCCART	609620.00	4200560.00	48.66	86.66
DISCCART	609620.00	4200580.00	48.50	86.66
DISCCART	609620.00	4200600.00	48.53	86.66
DISCCART	609620.00	4200620.00	48.54	86.66
DISCCART	609620.00	4200640.00	48.41	86.66
DISCCART	609620.00	4200660.00	48.28	86.41
DISCCART	609620.00	4200680.00	48.24	48.24
DISCCART	609620.00	4200700.00	48.21	48.21
DISCCART	609620.00	4200720.00	48.07	48.07
DISCCART	609620.00	4200740.00	48.04	48.04
DISCCART	609620.00	4200760.00	48.10	48.10
DISCCART	609620.00	4200780.00	48.14	48.14
DISCCART	609620.00	4200800.00	48.12	48.12
DISCCART	609620.00	4200820.00	48.10	48.10

Modeled Receptors

DISCCART	609620.00	4200840.00	48.10	48.10
DISCCART	609620.00	4200860.00	48.12	48.12
DISCCART	609620.00	4200880.00	48.07	48.07
DISCCART	609620.00	4200900.00	48.04	48.04
DISCCART	609620.00	4200920.00	48.04	48.04
DISCCART	609640.00	4199580.00	61.26	92.69
DISCCART	609640.00	4199600.00	65.36	92.69
DISCCART	609640.00	4199620.00	69.14	92.69
DISCCART	609640.00	4199640.00	71.97	92.69
DISCCART	609640.00	4199660.00	73.92	92.69
DISCCART	609640.00	4199680.00	76.29	92.69
DISCCART	609640.00	4199700.00	77.74	92.69
DISCCART	609640.00	4199720.00	75.87	92.69
DISCCART	609640.00	4199740.00	70.21	92.69
DISCCART	609640.00	4199760.00	64.55	92.69
DISCCART	609640.00	4199780.00	60.62	93.21
DISCCART	609640.00	4199800.00	58.85	93.21
DISCCART	609640.00	4199820.00	57.77	93.21
DISCCART	609640.00	4199840.00	56.87	93.21
DISCCART	609640.00	4199860.00	55.73	93.21
DISCCART	609640.00	4199880.00	54.90	93.21
DISCCART	609640.00	4199900.00	54.88	93.21
DISCCART	609640.00	4199920.00	60.14	93.21
DISCCART	609640.00	4199940.00	65.91	93.21

Modeled Receptors

DISCCART	609640.00	4199960.00	71.09	93.21
DISCCART	609640.00	4199980.00	76.30	93.21
DISCCART	609640.00	4200000.00	82.08	93.21
DISCCART	609640.00	4200020.00	86.83	93.21
DISCCART	609640.00	4200040.00	89.40	93.13
DISCCART	609640.00	4200060.00	91.27	91.80
DISCCART	609640.00	4200080.00	91.34	91.78
DISCCART	609640.00	4200100.00	90.15	92.49
DISCCART	609640.00	4200120.00	87.13	93.21
DISCCART	609640.00	4200140.00	84.57	93.21
DISCCART	609640.00	4200160.00	82.27	93.21
DISCCART	609640.00	4200180.00	79.79	93.21
DISCCART	609640.00	4200200.00	77.81	93.21
DISCCART	609640.00	4200220.00	77.08	93.21
DISCCART	609640.00	4200240.00	76.82	92.27
DISCCART	609640.00	4200260.00	76.67	86.66
DISCCART	609640.00	4200280.00	76.51	86.66
DISCCART	609640.00	4200300.00	76.29	86.66
DISCCART	609640.00	4200320.00	76.03	86.66
DISCCART	609640.00	4200340.00	75.54	86.66
DISCCART	609640.00	4200360.00	74.85	86.66
DISCCART	609640.00	4200380.00	72.94	86.66
DISCCART	609640.00	4200400.00	68.56	86.66
DISCCART	609640.00	4200420.00	61.10	86.66

Modeled Receptors

DISCCART	609640.00	4200440.00	55.26	93.21
DISCCART	609640.00	4200460.00	49.84	93.21
DISCCART	609640.00	4200480.00	46.65	93.21
DISCCART	609640.00	4200500.00	48.21	93.21
DISCCART	609640.00	4200520.00	48.33	92.76
DISCCART	609640.00	4200540.00	48.32	86.66
DISCCART	609640.00	4200560.00	48.21	86.66
DISCCART	609640.00	4200580.00	48.21	86.66
DISCCART	609640.00	4200600.00	48.23	86.66
DISCCART	609640.00	4200620.00	48.26	86.66
DISCCART	609640.00	4200640.00	48.09	86.66
DISCCART	609640.00	4200660.00	48.02	86.41
DISCCART	609640.00	4200680.00	47.97	47.97
DISCCART	609640.00	4200700.00	47.97	47.97
DISCCART	609640.00	4200720.00	47.95	47.95
DISCCART	609640.00	4200740.00	47.93	47.93
DISCCART	609640.00	4200760.00	47.86	47.86
DISCCART	609640.00	4200780.00	47.92	47.92
DISCCART	609640.00	4200800.00	48.03	48.03
DISCCART	609640.00	4200820.00	48.01	48.01
DISCCART	609640.00	4200840.00	48.00	48.00
DISCCART	609640.00	4200860.00	47.94	47.94
DISCCART	609640.00	4200880.00	47.95	47.95
DISCCART	609640.00	4200900.00	47.91	47.91

Modeled Receptors

DISCCART	609640.00	4200920.00	47.85	47.85
DISCCART	609640.00	4200940.00	47.82	47.82
DISCCART	609660.00	4199580.00	61.08	92.69
DISCCART	609660.00	4199600.00	67.35	92.69
DISCCART	609660.00	4199620.00	72.39	92.69
DISCCART	609660.00	4199640.00	76.55	92.69
DISCCART	609660.00	4199660.00	81.45	92.69
DISCCART	609660.00	4199680.00	84.95	92.69
DISCCART	609660.00	4199700.00	84.43	92.69
DISCCART	609660.00	4199720.00	80.80	92.69
DISCCART	609660.00	4199740.00	74.92	92.69
DISCCART	609660.00	4199760.00	67.28	92.69
DISCCART	609660.00	4199780.00	61.53	93.21
DISCCART	609660.00	4199800.00	60.59	93.21
DISCCART	609660.00	4199820.00	60.26	93.21
DISCCART	609660.00	4199840.00	59.65	93.21
DISCCART	609660.00	4199860.00	58.46	93.21
DISCCART	609660.00	4199880.00	56.62	93.21
DISCCART	609660.00	4199900.00	56.26	93.21
DISCCART	609660.00	4199920.00	61.38	93.21
DISCCART	609660.00	4199940.00	65.93	93.21
DISCCART	609660.00	4199960.00	70.09	93.21
DISCCART	609660.00	4199980.00	74.10	93.21
DISCCART	609660.00	4200000.00	79.62	93.21

Modeled Receptors

DISCCART	609660.00	4200020.00	83.98	93.21
DISCCART	609660.00	4200040.00	86.75	93.21
DISCCART	609660.00	4200060.00	88.28	93.21
DISCCART	609660.00	4200080.00	88.52	93.03
DISCCART	609660.00	4200100.00	87.32	93.21
DISCCART	609660.00	4200120.00	85.02	93.21
DISCCART	609660.00	4200140.00	82.71	93.21
DISCCART	609660.00	4200160.00	80.36	93.21
DISCCART	609660.00	4200180.00	76.53	93.21
DISCCART	609660.00	4200200.00	73.46	93.21
DISCCART	609660.00	4200220.00	71.99	93.21
DISCCART	609660.00	4200240.00	71.70	93.21
DISCCART	609660.00	4200260.00	71.92	93.21
DISCCART	609660.00	4200280.00	72.10	92.76
DISCCART	609660.00	4200300.00	72.14	86.66
DISCCART	609660.00	4200320.00	72.03	86.66
DISCCART	609660.00	4200340.00	71.65	86.66
DISCCART	609660.00	4200360.00	71.17	86.66
DISCCART	609660.00	4200380.00	69.83	86.66
DISCCART	609660.00	4200400.00	67.09	86.66
DISCCART	609660.00	4200420.00	61.47	86.66
DISCCART	609660.00	4200440.00	56.13	92.76
DISCCART	609660.00	4200460.00	49.97	93.21
DISCCART	609660.00	4200480.00	46.49	93.21

Modeled Receptors

DISCCART	609660.00	4200500.00	47.44	93.21
DISCCART	609660.00	4200520.00	48.09	93.21
DISCCART	609660.00	4200540.00	48.05	86.66
DISCCART	609660.00	4200560.00	47.94	86.66
DISCCART	609660.00	4200580.00	47.83	86.66
DISCCART	609660.00	4200600.00	47.84	86.66
DISCCART	609660.00	4200620.00	47.79	86.66
DISCCART	609660.00	4200640.00	47.75	86.66
DISCCART	609660.00	4200660.00	47.73	86.41
DISCCART	609660.00	4200680.00	47.73	47.73
DISCCART	609660.00	4200700.00	47.78	47.78
DISCCART	609660.00	4200720.00	47.76	47.76
DISCCART	609660.00	4200740.00	47.78	47.78
DISCCART	609660.00	4200760.00	47.81	47.81
DISCCART	609660.00	4200780.00	47.82	47.82
DISCCART	609660.00	4200800.00	47.90	47.90
DISCCART	609660.00	4200820.00	47.91	47.91
DISCCART	609660.00	4200840.00	47.87	47.87
DISCCART	609660.00	4200860.00	47.84	47.84
DISCCART	609660.00	4200880.00	47.82	47.82
DISCCART	609660.00	4200900.00	47.78	47.78
DISCCART	609660.00	4200920.00	47.73	47.73
DISCCART	609660.00	4200940.00	47.65	47.65
DISCCART	609680.00	4199580.00	61.58	92.69

Modeled Receptors

DISCCART	609680.00	4199600.00	68.81	92.69
DISCCART	609680.00	4199620.00	74.88	92.69
DISCCART	609680.00	4199640.00	81.45	92.69
DISCCART	609680.00	4199660.00	88.06	92.69
DISCCART	609680.00	4199680.00	87.65	92.69
DISCCART	609680.00	4199700.00	86.15	92.69
DISCCART	609680.00	4199720.00	82.09	92.69
DISCCART	609680.00	4199740.00	77.71	92.69
DISCCART	609680.00	4199760.00	71.97	92.69
DISCCART	609680.00	4199780.00	65.15	92.69
DISCCART	609680.00	4199800.00	63.10	93.21
DISCCART	609680.00	4199820.00	63.04	93.21
DISCCART	609680.00	4199840.00	62.84	93.21
DISCCART	609680.00	4199860.00	62.52	93.21
DISCCART	609680.00	4199880.00	61.74	93.21
DISCCART	609680.00	4199900.00	60.88	93.21
DISCCART	609680.00	4199920.00	62.56	93.21
DISCCART	609680.00	4199940.00	65.32	93.21
DISCCART	609680.00	4199960.00	68.27	93.21
DISCCART	609680.00	4199980.00	71.47	93.21
DISCCART	609680.00	4200000.00	75.15	93.21
DISCCART	609680.00	4200020.00	80.64	93.21
DISCCART	609680.00	4200040.00	83.23	93.21
DISCCART	609680.00	4200060.00	84.81	93.21

Modeled Receptors

DISCCART	609680.00	4200080.00	85.21	93.21
DISCCART	609680.00	4200100.00	84.03	93.21
DISCCART	609680.00	4200120.00	82.19	93.21
DISCCART	609680.00	4200140.00	80.20	93.21
DISCCART	609680.00	4200160.00	78.40	93.21
DISCCART	609680.00	4200180.00	75.66	93.21
DISCCART	609680.00	4200200.00	72.60	93.21
DISCCART	609680.00	4200220.00	68.93	93.21
DISCCART	609680.00	4200240.00	66.72	93.21
DISCCART	609680.00	4200260.00	66.46	93.21
DISCCART	609680.00	4200280.00	66.65	93.21
DISCCART	609680.00	4200300.00	66.82	93.21
DISCCART	609680.00	4200320.00	66.86	93.21
DISCCART	609680.00	4200340.00	66.81	92.27
DISCCART	609680.00	4200360.00	66.64	86.66
DISCCART	609680.00	4200380.00	65.98	86.66
DISCCART	609680.00	4200400.00	64.07	86.66
DISCCART	609680.00	4200420.00	60.60	86.66
DISCCART	609680.00	4200440.00	56.13	92.76
DISCCART	609680.00	4200460.00	49.93	93.21
DISCCART	609680.00	4200480.00	46.06	93.21
DISCCART	609680.00	4200500.00	47.74	93.21
DISCCART	609680.00	4200520.00	47.92	92.76
DISCCART	609680.00	4200540.00	47.61	86.66

Modeled Receptors

DISCCART	609680.00	4200560.00	47.45	86.66
DISCCART	609680.00	4200580.00	47.44	86.66
DISCCART	609680.00	4200600.00	47.39	86.66
DISCCART	609680.00	4200620.00	47.42	86.66
DISCCART	609680.00	4200640.00	47.41	86.66
DISCCART	609680.00	4200660.00	47.40	86.41
DISCCART	609680.00	4200680.00	47.42	47.42
DISCCART	609680.00	4200700.00	47.51	47.51
DISCCART	609680.00	4200720.00	47.58	47.58
DISCCART	609680.00	4200740.00	47.67	47.67
DISCCART	609680.00	4200760.00	47.73	47.73
DISCCART	609680.00	4200780.00	47.76	47.76
DISCCART	609680.00	4200800.00	47.78	47.78
DISCCART	609680.00	4200820.00	47.77	47.77
DISCCART	609680.00	4200840.00	47.76	47.76
DISCCART	609680.00	4200860.00	47.74	47.74
DISCCART	609680.00	4200880.00	47.68	47.68
DISCCART	609680.00	4200900.00	47.63	47.63
DISCCART	609680.00	4200920.00	47.59	47.59
DISCCART	609680.00	4200940.00	47.52	47.52
DISCCART	609680.00	4200960.00	47.61	47.61
DISCCART	609700.00	4199560.00	65.01	92.69
DISCCART	609700.00	4199580.00	63.50	92.69
DISCCART	609700.00	4199600.00	70.16	92.69

Modeled Receptors

DISCCART	609700.00	4199620.00	77.32	92.69
DISCCART	609700.00	4199640.00	87.10	92.69
DISCCART	609700.00	4199660.00	90.73	92.38
DISCCART	609700.00	4199680.00	88.33	92.69
DISCCART	609700.00	4199700.00	85.46	92.69
DISCCART	609700.00	4199720.00	83.02	92.69
DISCCART	609700.00	4199740.00	79.74	92.69
DISCCART	609700.00	4199760.00	76.01	92.69
DISCCART	609700.00	4199780.00	71.58	92.69
DISCCART	609700.00	4199800.00	69.75	92.69
DISCCART	609700.00	4199820.00	69.14	92.69
DISCCART	609700.00	4199840.00	68.40	93.21
DISCCART	609700.00	4199860.00	67.43	93.21
DISCCART	609700.00	4199880.00	65.90	93.21
DISCCART	609700.00	4199900.00	64.42	93.21
DISCCART	609700.00	4199920.00	64.47	93.21
DISCCART	609700.00	4199940.00	64.90	93.21
DISCCART	609700.00	4199960.00	66.17	93.21
DISCCART	609700.00	4199980.00	68.81	93.21
DISCCART	609700.00	4200000.00	71.25	93.21
DISCCART	609700.00	4200020.00	75.38	93.21
DISCCART	609700.00	4200040.00	79.57	93.21
DISCCART	609700.00	4200060.00	80.95	93.21
DISCCART	609700.00	4200080.00	81.17	93.21

Modeled Receptors

DISCCART	609700.00	4200100.00	80.41	93.21
DISCCART	609700.00	4200120.00	79.04	93.21
DISCCART	609700.00	4200140.00	77.59	93.21
DISCCART	609700.00	4200160.00	76.18	93.21
DISCCART	609700.00	4200180.00	74.96	93.21
DISCCART	609700.00	4200200.00	72.73	93.21
DISCCART	609700.00	4200220.00	68.88	93.21
DISCCART	609700.00	4200240.00	65.30	93.21
DISCCART	609700.00	4200260.00	61.96	93.21
DISCCART	609700.00	4200280.00	61.05	93.21
DISCCART	609700.00	4200300.00	61.12	93.21
DISCCART	609700.00	4200320.00	61.51	93.21
DISCCART	609700.00	4200340.00	61.74	93.21
DISCCART	609700.00	4200360.00	61.67	93.21
DISCCART	609700.00	4200380.00	61.39	92.76
DISCCART	609700.00	4200400.00	60.47	92.27
DISCCART	609700.00	4200420.00	58.31	92.27
DISCCART	609700.00	4200440.00	55.32	92.76
DISCCART	609700.00	4200460.00	49.35	93.21
DISCCART	609700.00	4200480.00	46.85	93.21
DISCCART	609700.00	4200500.00	47.87	93.21
DISCCART	609700.00	4200520.00	47.44	93.21
DISCCART	609700.00	4200540.00	46.83	92.27
DISCCART	609700.00	4200560.00	47.02	86.66

Modeled Receptors

DISCCART	609700.00	4200580.00	46.98	86.66
DISCCART	609700.00	4200600.00	47.01	86.66
DISCCART	609700.00	4200620.00	47.02	86.66
DISCCART	609700.00	4200640.00	47.00	86.66
DISCCART	609700.00	4200660.00	47.00	86.21
DISCCART	609700.00	4200680.00	47.12	47.12
DISCCART	609700.00	4200700.00	47.17	47.17
DISCCART	609700.00	4200720.00	47.30	47.30
DISCCART	609700.00	4200740.00	47.48	47.48
DISCCART	609700.00	4200760.00	47.58	47.58
DISCCART	609700.00	4200780.00	47.60	47.60
DISCCART	609700.00	4200800.00	47.60	47.60
DISCCART	609700.00	4200820.00	47.60	47.60
DISCCART	609700.00	4200840.00	47.62	47.62
DISCCART	609700.00	4200860.00	47.59	47.59
DISCCART	609700.00	4200880.00	47.56	47.56
DISCCART	609700.00	4200900.00	47.49	47.49
DISCCART	609700.00	4200920.00	47.43	47.43
DISCCART	609700.00	4200940.00	47.53	47.53
DISCCART	609700.00	4200960.00	47.54	47.54
DISCCART	609720.00	4199560.00	69.07	92.69
DISCCART	609720.00	4199580.00	67.19	92.69
DISCCART	609720.00	4199600.00	73.12	92.69
DISCCART	609720.00	4199620.00	80.36	92.69

Modeled Receptors

DISCCART	609720.00	4199640.00	89.40	92.69
DISCCART	609720.00	4199660.00	92.54	92.54
DISCCART	609720.00	4199680.00	89.07	92.69
DISCCART	609720.00	4199700.00	85.90	92.69
DISCCART	609720.00	4199720.00	84.78	92.69
DISCCART	609720.00	4199740.00	82.04	92.69
DISCCART	609720.00	4199760.00	79.74	92.69
DISCCART	609720.00	4199780.00	77.87	92.69
DISCCART	609720.00	4199800.00	76.49	92.69
DISCCART	609720.00	4199820.00	75.45	92.69
DISCCART	609720.00	4199840.00	73.46	92.69
DISCCART	609720.00	4199860.00	71.22	92.69
DISCCART	609720.00	4199880.00	69.05	93.21
DISCCART	609720.00	4199900.00	66.62	93.21
DISCCART	609720.00	4199920.00	65.82	93.21
DISCCART	609720.00	4199940.00	62.42	93.21
DISCCART	609720.00	4199960.00	63.85	93.21
DISCCART	609720.00	4199980.00	66.22	93.21
DISCCART	609720.00	4200000.00	68.50	93.21
DISCCART	609720.00	4200020.00	70.97	93.21
DISCCART	609720.00	4200040.00	74.54	93.21
DISCCART	609720.00	4200060.00	76.83	93.21
DISCCART	609720.00	4200080.00	77.89	93.21
DISCCART	609720.00	4200100.00	77.49	93.21

Modeled Receptors

DISCCART	609720.00	4200120.00	76.50	93.21
DISCCART	609720.00	4200140.00	75.15	93.21
DISCCART	609720.00	4200160.00	73.87	93.21
DISCCART	609720.00	4200180.00	72.71	93.21
DISCCART	609720.00	4200200.00	70.93	93.21
DISCCART	609720.00	4200220.00	68.57	93.21
DISCCART	609720.00	4200240.00	65.48	93.21
DISCCART	609720.00	4200260.00	61.95	93.21
DISCCART	609720.00	4200280.00	58.37	93.21
DISCCART	609720.00	4200300.00	56.27	93.21
DISCCART	609720.00	4200320.00	56.15	93.21
DISCCART	609720.00	4200340.00	56.01	93.21
DISCCART	609720.00	4200360.00	56.37	93.21
DISCCART	609720.00	4200380.00	56.38	93.21
DISCCART	609720.00	4200400.00	56.05	93.21
DISCCART	609720.00	4200420.00	55.30	93.21
DISCCART	609720.00	4200440.00	53.33	93.21
DISCCART	609720.00	4200460.00	49.58	93.21
DISCCART	609720.00	4200480.00	46.58	93.21
DISCCART	609720.00	4200500.00	47.87	93.21
DISCCART	609720.00	4200520.00	46.83	93.21
DISCCART	609720.00	4200540.00	46.49	92.27
DISCCART	609720.00	4200560.00	46.64	86.66
DISCCART	609720.00	4200580.00	46.70	86.66

Modeled Receptors

DISCCART	609720.00	4200600.00	46.75	86.66
DISCCART	609720.00	4200620.00	46.72	86.66
DISCCART	609720.00	4200640.00	46.66	86.59
DISCCART	609720.00	4200660.00	46.65	86.21
DISCCART	609720.00	4200680.00	46.70	46.70
DISCCART	609720.00	4200700.00	46.82	46.82
DISCCART	609720.00	4200720.00	47.05	47.05
DISCCART	609720.00	4200740.00	47.28	47.28
DISCCART	609720.00	4200760.00	47.37	47.37
DISCCART	609720.00	4200780.00	47.41	47.41
DISCCART	609720.00	4200800.00	47.42	47.42
DISCCART	609720.00	4200820.00	47.37	47.37
DISCCART	609720.00	4200840.00	47.35	47.35
DISCCART	609720.00	4200860.00	47.41	47.41
DISCCART	609720.00	4200880.00	47.43	47.43
DISCCART	609720.00	4200900.00	47.43	47.43
DISCCART	609720.00	4200920.00	47.41	47.41
DISCCART	609720.00	4200940.00	47.43	47.43
DISCCART	609720.00	4200960.00	47.42	47.42
DISCCART	609740.00	4199560.00	71.41	92.69
DISCCART	609740.00	4199580.00	70.66	92.69
DISCCART	609740.00	4199600.00	75.85	92.69
DISCCART	609740.00	4199620.00	83.36	92.69
DISCCART	609740.00	4199640.00	89.17	92.69

Modeled Receptors

DISCCART	609740.00	4199660.00	90.95	92.69
DISCCART	609740.00	4199680.00	89.15	92.69
DISCCART	609740.00	4199700.00	87.75	92.69
DISCCART	609740.00	4199720.00	86.34	92.69
DISCCART	609740.00	4199740.00	84.90	84.90
DISCCART	609740.00	4199760.00	83.20	83.20
DISCCART	609740.00	4199780.00	81.62	81.62
DISCCART	609740.00	4199800.00	80.59	80.59
DISCCART	609740.00	4199820.00	78.96	81.14
DISCCART	609740.00	4199840.00	76.11	82.06
DISCCART	609740.00	4199860.00	73.25	85.00
DISCCART	609740.00	4199880.00	70.64	93.13
DISCCART	609740.00	4199900.00	67.84	93.21
DISCCART	609740.00	4199920.00	65.41	93.21
DISCCART	609740.00	4199940.00	62.00	93.21
DISCCART	609740.00	4199960.00	61.78	93.21
DISCCART	609740.00	4199980.00	63.52	93.21
DISCCART	609740.00	4200000.00	66.15	93.21
DISCCART	609740.00	4200020.00	68.47	93.21
DISCCART	609740.00	4200040.00	70.54	93.21
DISCCART	609740.00	4200060.00	73.13	93.21
DISCCART	609740.00	4200080.00	74.79	93.21
DISCCART	609740.00	4200100.00	74.73	93.21
DISCCART	609740.00	4200120.00	74.10	93.21

Modeled Receptors

DISCCART	609740.00	4200140.00	73.04	93.21
DISCCART	609740.00	4200160.00	72.05	93.21
DISCCART	609740.00	4200180.00	70.25	93.21
DISCCART	609740.00	4200200.00	68.64	93.21
DISCCART	609740.00	4200220.00	66.76	93.21
DISCCART	609740.00	4200240.00	64.06	93.21
DISCCART	609740.00	4200260.00	60.80	93.21
DISCCART	609740.00	4200280.00	56.96	93.21
DISCCART	609740.00	4200300.00	54.19	93.21
DISCCART	609740.00	4200320.00	53.05	93.21
DISCCART	609740.00	4200340.00	52.47	93.21
DISCCART	609740.00	4200360.00	52.64	93.21
DISCCART	609740.00	4200380.00	52.94	93.21
DISCCART	609740.00	4200400.00	52.98	93.21
DISCCART	609740.00	4200420.00	52.57	93.21
DISCCART	609740.00	4200440.00	51.25	93.21
DISCCART	609740.00	4200460.00	49.11	93.21
DISCCART	609740.00	4200480.00	47.03	93.21
DISCCART	609740.00	4200500.00	46.97	93.21
DISCCART	609740.00	4200520.00	46.26	93.21
DISCCART	609740.00	4200540.00	45.99	92.27
DISCCART	609740.00	4200560.00	46.12	86.66
DISCCART	609740.00	4200580.00	46.35	86.66
DISCCART	609740.00	4200600.00	46.42	86.66

Modeled Receptors

DISCCART	609740.00	4200620.00	46.43	86.66
DISCCART	609740.00	4200640.00	46.40	86.41
DISCCART	609740.00	4200660.00	46.40	85.41
DISCCART	609740.00	4200680.00	46.44	46.44
DISCCART	609740.00	4200700.00	46.62	46.62
DISCCART	609740.00	4200720.00	46.90	46.90
DISCCART	609740.00	4200740.00	47.11	47.11
DISCCART	609740.00	4200760.00	47.20	47.20
DISCCART	609740.00	4200780.00	47.22	47.22
DISCCART	609740.00	4200800.00	47.20	47.20
DISCCART	609740.00	4200820.00	47.16	47.16
DISCCART	609740.00	4200840.00	47.15	47.15
DISCCART	609740.00	4200860.00	47.24	47.24
DISCCART	609740.00	4200880.00	47.30	47.30
DISCCART	609740.00	4200900.00	47.32	47.32
DISCCART	609740.00	4200920.00	47.31	47.31
DISCCART	609740.00	4200940.00	47.34	47.34
DISCCART	609740.00	4200960.00	47.33	47.33
DISCCART	609760.00	4199560.00	72.56	92.69
DISCCART	609760.00	4199580.00	72.28	92.69
DISCCART	609760.00	4199600.00	76.79	92.69
DISCCART	609760.00	4199620.00	84.01	92.69
DISCCART	609760.00	4199640.00	89.10	90.67
DISCCART	609760.00	4199660.00	90.36	90.36

Modeled Receptors

DISCCART	609760.00	4199680.00	89.22	89.22
DISCCART	609760.00	4199700.00	87.96	87.96
DISCCART	609760.00	4199720.00	86.66	86.66
DISCCART	609760.00	4199740.00	85.27	85.27
DISCCART	609760.00	4199760.00	83.73	83.73
DISCCART	609760.00	4199780.00	82.33	82.33
DISCCART	609760.00	4199800.00	81.38	81.38
DISCCART	609760.00	4199820.00	79.71	81.11
DISCCART	609760.00	4199840.00	77.02	81.58
DISCCART	609760.00	4199860.00	74.26	82.06
DISCCART	609760.00	4199880.00	71.48	84.20
DISCCART	609760.00	4199900.00	68.49	93.21
DISCCART	609760.00	4199920.00	65.75	93.21
DISCCART	609760.00	4199940.00	62.14	93.21
DISCCART	609760.00	4199960.00	61.54	93.21
DISCCART	609760.00	4199980.00	62.35	93.21
DISCCART	609760.00	4200000.00	63.11	93.21
DISCCART	609760.00	4200020.00	65.12	93.21
DISCCART	609760.00	4200040.00	67.45	93.21
DISCCART	609760.00	4200060.00	69.15	93.21
DISCCART	609760.00	4200080.00	71.11	93.21
DISCCART	609760.00	4200100.00	71.60	93.21
DISCCART	609760.00	4200120.00	71.12	93.21
DISCCART	609760.00	4200140.00	70.34	93.21

Modeled Receptors

DISCCART	609760.00	4200160.00	69.27	93.21
DISCCART	609760.00	4200180.00	67.93	93.21
DISCCART	609760.00	4200200.00	66.48	93.21
DISCCART	609760.00	4200220.00	64.58	93.21
DISCCART	609760.00	4200240.00	62.13	93.21
DISCCART	609760.00	4200260.00	59.13	93.21
DISCCART	609760.00	4200280.00	55.64	93.21
DISCCART	609760.00	4200300.00	52.75	93.21
DISCCART	609760.00	4200320.00	50.95	93.21
DISCCART	609760.00	4200340.00	50.08	93.21
DISCCART	609760.00	4200360.00	50.41	93.21
DISCCART	609760.00	4200380.00	50.84	93.21
DISCCART	609760.00	4200400.00	50.99	93.21
DISCCART	609760.00	4200420.00	50.78	93.21
DISCCART	609760.00	4200440.00	49.88	93.21
DISCCART	609760.00	4200460.00	48.37	93.21
DISCCART	609760.00	4200480.00	46.46	93.21
DISCCART	609760.00	4200500.00	45.77	93.21
DISCCART	609760.00	4200520.00	45.61	93.21
DISCCART	609760.00	4200540.00	45.62	91.35
DISCCART	609760.00	4200560.00	45.65	86.66
DISCCART	609760.00	4200580.00	46.33	86.66
DISCCART	609760.00	4200680.00	46.44	46.44
DISCCART	609760.00	4200700.00	46.72	46.72

Modeled Receptors

DISCCART	609760.00	4200720.00	46.84	46.84
DISCCART	609760.00	4200740.00	46.95	46.95
DISCCART	609760.00	4200760.00	47.00	47.00
DISCCART	609760.00	4200780.00	46.98	46.98
DISCCART	609760.00	4200800.00	46.94	46.94
DISCCART	609760.00	4200820.00	46.95	46.95
DISCCART	609760.00	4200840.00	46.98	46.98
DISCCART	609760.00	4200860.00	47.07	47.07
DISCCART	609760.00	4200880.00	47.15	47.15
DISCCART	609760.00	4200900.00	47.18	47.18
DISCCART	609760.00	4200920.00	47.25	47.25
DISCCART	609760.00	4200940.00	47.29	47.29
DISCCART	609760.00	4200960.00	47.22	47.22
DISCCART	609780.00	4199560.00	74.45	92.69
DISCCART	609780.00	4199580.00	74.64	92.69
DISCCART	609780.00	4199600.00	78.07	92.69
DISCCART	609780.00	4199620.00	83.20	92.69
DISCCART	609780.00	4199640.00	86.62	92.68
DISCCART	609780.00	4199660.00	87.68	90.76
DISCCART	609780.00	4199680.00	87.65	90.76
DISCCART	609780.00	4199700.00	86.94	86.94
DISCCART	609780.00	4199720.00	85.89	85.89
DISCCART	609780.00	4199740.00	84.42	84.42
DISCCART	609780.00	4199760.00	82.53	85.62

Modeled Receptors

DISCCART	609780.00	4199780.00	81.15	81.15
DISCCART	609780.00	4199800.00	80.17	81.27
DISCCART	609780.00	4199820.00	78.55	81.58
DISCCART	609780.00	4199840.00	76.34	82.06
DISCCART	609780.00	4200680.00	46.46	46.46
DISCCART	609780.00	4200700.00	46.75	46.75
DISCCART	609780.00	4200720.00	46.83	46.83
DISCCART	609780.00	4200740.00	46.89	46.89
DISCCART	609780.00	4200760.00	46.84	46.84
DISCCART	609780.00	4200780.00	46.83	46.83
DISCCART	609780.00	4200800.00	46.85	46.85
DISCCART	609780.00	4200820.00	46.81	46.81
DISCCART	609780.00	4200840.00	46.84	46.84
DISCCART	609780.00	4200860.00	46.91	46.91
DISCCART	609780.00	4200880.00	46.97	46.97
DISCCART	609780.00	4200900.00	47.09	47.09
DISCCART	609780.00	4200920.00	47.20	47.20
DISCCART	609780.00	4200940.00	47.20	47.20
DISCCART	609780.00	4200960.00	47.11	47.11
DISCCART	609800.00	4199560.00	76.63	92.69
DISCCART	609800.00	4199580.00	76.36	92.69
DISCCART	609800.00	4199600.00	78.70	92.69
DISCCART	609800.00	4199620.00	81.81	92.69
DISCCART	609800.00	4199640.00	83.35	92.69

Modeled Receptors

DISCCART	609800.00	4199660.00	84.19	92.69
DISCCART	609800.00	4199680.00	85.06	90.82
DISCCART	609800.00	4199700.00	85.54	85.54
DISCCART	609800.00	4199720.00	85.18	85.18
DISCCART	609800.00	4199740.00	83.44	85.12
DISCCART	609800.00	4199760.00	80.69	88.31
DISCCART	609800.00	4199780.00	79.08	87.72
DISCCART	609800.00	4199800.00	77.50	87.07
DISCCART	609800.00	4199820.00	75.50	87.72
DISCCART	609800.00	4199840.00	74.11	86.33
DISCCART	609800.00	4200680.00	46.52	46.52
DISCCART	609800.00	4200700.00	46.69	46.69
DISCCART	609800.00	4200720.00	46.83	46.83
DISCCART	609800.00	4200740.00	46.86	46.86
DISCCART	609800.00	4200760.00	46.84	46.84
DISCCART	609800.00	4200780.00	46.75	46.75
DISCCART	609800.00	4200800.00	46.77	46.77
DISCCART	609800.00	4200820.00	46.71	46.71
DISCCART	609800.00	4200840.00	46.73	46.73
DISCCART	609800.00	4200860.00	46.80	46.80
DISCCART	609800.00	4200880.00	46.89	46.89
DISCCART	609800.00	4200900.00	47.03	47.03
DISCCART	609800.00	4200920.00	47.05	47.05
DISCCART	609800.00	4200940.00	47.03	47.03

Modeled Receptors

DISCCART	609800.00	4200960.00	46.93	46.93
DISCCART	609820.00	4199560.00	74.62	92.69
DISCCART	609820.00	4199580.00	75.97	92.69
DISCCART	609820.00	4199600.00	78.36	92.69
DISCCART	609820.00	4199620.00	79.90	92.69
DISCCART	609820.00	4199640.00	80.41	92.69
DISCCART	609820.00	4199660.00	80.57	92.69
DISCCART	609820.00	4199680.00	82.10	92.69
DISCCART	609820.00	4199700.00	83.81	83.81
DISCCART	609820.00	4199720.00	84.34	84.34
DISCCART	609820.00	4199740.00	82.63	84.91
DISCCART	609820.00	4199760.00	80.20	85.92
DISCCART	609820.00	4199780.00	77.62	88.93
DISCCART	609820.00	4199800.00	74.71	92.69
DISCCART	609820.00	4199820.00	72.81	92.69
DISCCART	609820.00	4199840.00	71.40	92.69
DISCCART	609820.00	4200680.00	46.68	46.68
DISCCART	609820.00	4200700.00	46.88	46.88
DISCCART	609820.00	4200720.00	46.88	46.88
DISCCART	609820.00	4200740.00	46.89	46.89
DISCCART	609820.00	4200760.00	46.86	46.86
DISCCART	609820.00	4200780.00	46.80	46.80
DISCCART	609820.00	4200800.00	46.74	46.74
DISCCART	609820.00	4200820.00	46.69	46.69

Modeled Receptors

DISCCART	609820.00	4200840.00	46.72	46.72
DISCCART	609820.00	4200860.00	46.71	46.71
DISCCART	609820.00	4200880.00	46.90	46.90
DISCCART	609820.00	4200900.00	46.95	46.95
DISCCART	609820.00	4200920.00	46.95	46.95
DISCCART	609820.00	4200940.00	46.82	46.82
DISCCART	609820.00	4200960.00	46.73	46.73
DISCCART	609840.00	4199560.00	73.44	92.69
DISCCART	609840.00	4199580.00	74.97	92.69
DISCCART	609840.00	4199600.00	76.23	92.69
DISCCART	609840.00	4199620.00	76.89	92.69
DISCCART	609840.00	4199640.00	77.29	92.69
DISCCART	609840.00	4199660.00	78.26	92.69
DISCCART	609840.00	4199680.00	80.33	92.69
DISCCART	609840.00	4199700.00	82.17	84.18
DISCCART	609840.00	4199720.00	82.95	82.95
DISCCART	609840.00	4199740.00	82.22	82.22
DISCCART	609840.00	4199760.00	80.40	80.40
DISCCART	609840.00	4199780.00	77.23	86.26
DISCCART	609840.00	4199800.00	73.73	92.69
DISCCART	609840.00	4199820.00	71.23	92.69
DISCCART	609840.00	4199840.00	68.59	92.69
DISCCART	609840.00	4200680.00	46.90	46.90
DISCCART	609840.00	4200700.00	46.91	46.91

Modeled Receptors

DISCCART	609840.00	4200720.00	46.89	46.89
DISCCART	609840.00	4200740.00	46.96	46.96
DISCCART	609840.00	4200760.00	46.81	46.81
DISCCART	609840.00	4200780.00	46.85	46.85
DISCCART	609840.00	4200800.00	46.75	46.75
DISCCART	609840.00	4200820.00	46.70	46.70
DISCCART	609840.00	4200840.00	46.74	46.74
DISCCART	609840.00	4200860.00	46.80	46.80
DISCCART	609840.00	4200880.00	46.79	46.79
DISCCART	609840.00	4200900.00	46.75	46.75
DISCCART	609840.00	4200920.00	46.76	46.76
DISCCART	609840.00	4200940.00	46.70	46.70
DISCCART	609840.00	4200960.00	46.64	46.64
DISCCART	609860.00	4199560.00	72.12	92.69
DISCCART	609860.00	4199580.00	73.27	92.69
DISCCART	609860.00	4199600.00	73.95	92.69
DISCCART	609860.00	4199620.00	74.14	92.69
DISCCART	609860.00	4199640.00	73.99	92.69
DISCCART	609860.00	4199660.00	75.78	92.69
DISCCART	609860.00	4199680.00	79.10	92.09
DISCCART	609860.00	4199700.00	80.87	80.87
DISCCART	609860.00	4199720.00	81.88	81.88
DISCCART	609860.00	4199740.00	81.59	81.59
DISCCART	609860.00	4199760.00	80.33	80.33

Modeled Receptors

DISCCART	609860.00	4199780.00	77.22	84.22
DISCCART	609860.00	4199800.00	73.75	88.93
DISCCART	609860.00	4199820.00	70.57	92.69
DISCCART	609860.00	4199840.00	67.30	92.69
DISCCART	609860.00	4199860.00	65.72	92.69
DISCCART	609860.00	4200680.00	46.89	46.89
DISCCART	609860.00	4200700.00	46.87	46.87
DISCCART	609860.00	4200720.00	46.82	46.82
DISCCART	609860.00	4200740.00	46.78	46.78
DISCCART	609860.00	4200760.00	46.73	46.73
DISCCART	609860.00	4200780.00	46.66	46.66
DISCCART	609860.00	4200800.00	46.66	46.66
DISCCART	609860.00	4200820.00	46.63	46.63
DISCCART	609860.00	4200840.00	46.63	46.63
DISCCART	609860.00	4200860.00	46.64	46.64
DISCCART	609860.00	4200880.00	46.65	46.65
DISCCART	609860.00	4200900.00	46.63	46.63
DISCCART	609860.00	4200920.00	46.54	46.54
DISCCART	609860.00	4200940.00	46.47	46.47
DISCCART	609860.00	4200960.00	46.44	46.44
DISCCART	609880.00	4199560.00	69.80	92.69
DISCCART	609880.00	4199580.00	70.37	92.69
DISCCART	609880.00	4199600.00	71.07	92.69
DISCCART	609880.00	4199620.00	71.63	92.69

Modeled Receptors

DISCCART	609880.00	4199640.00	72.08	92.69
DISCCART	609880.00	4199660.00	73.74	92.69
DISCCART	609880.00	4199680.00	76.95	92.09
DISCCART	609880.00	4199700.00	80.08	82.12
DISCCART	609880.00	4199720.00	81.67	81.67
DISCCART	609880.00	4199740.00	81.01	81.01
DISCCART	609880.00	4199760.00	79.83	79.83
DISCCART	609880.00	4199780.00	76.81	81.74
DISCCART	609880.00	4199800.00	73.60	85.21
DISCCART	609880.00	4199820.00	70.19	92.69
DISCCART	609880.00	4199840.00	67.12	92.69
DISCCART	609880.00	4199860.00	64.85	92.69
DISCCART	609880.00	4200680.00	46.69	46.69
DISCCART	609880.00	4200700.00	46.67	46.67
DISCCART	609880.00	4200720.00	46.56	46.56
DISCCART	609880.00	4200740.00	46.48	46.48
DISCCART	609880.00	4200760.00	46.50	46.50
DISCCART	609880.00	4200780.00	46.38	46.38
DISCCART	609880.00	4200800.00	46.37	46.37
DISCCART	609880.00	4200820.00	46.40	46.40
DISCCART	609880.00	4200840.00	46.44	46.44
DISCCART	609880.00	4200860.00	46.51	46.51
DISCCART	609880.00	4200880.00	46.45	46.45
DISCCART	609880.00	4200900.00	46.34	46.34

Modeled Receptors

DISCCART	609880.00	4200920.00	46.26	46.26
DISCCART	609880.00	4200940.00	46.21	46.21
DISCCART	609880.00	4200960.00	46.16	46.16
DISCCART	609900.00	4199560.00	68.19	92.69
DISCCART	609900.00	4199580.00	67.67	92.69
DISCCART	609900.00	4199600.00	68.57	92.69
DISCCART	609900.00	4199620.00	69.26	92.69
DISCCART	609900.00	4199640.00	70.00	92.69
DISCCART	609900.00	4199660.00	71.82	92.69
DISCCART	609900.00	4199680.00	74.20	92.69
DISCCART	609900.00	4199700.00	77.75	82.12
DISCCART	609900.00	4199720.00	80.11	80.11
DISCCART	609900.00	4199740.00	80.41	80.41
DISCCART	609900.00	4199760.00	79.12	79.61
DISCCART	609900.00	4199780.00	75.93	81.49
DISCCART	609900.00	4199800.00	72.83	84.52
DISCCART	609900.00	4199820.00	69.73	87.86
DISCCART	609900.00	4199840.00	66.90	92.69
DISCCART	609900.00	4199860.00	64.38	92.69
DISCCART	609900.00	4200680.00	46.29	46.29
DISCCART	609900.00	4200700.00	46.25	46.25
DISCCART	609900.00	4200720.00	46.15	46.15
DISCCART	609900.00	4200740.00	46.14	46.14
DISCCART	609900.00	4200760.00	46.10	46.10

Modeled Receptors

DISCCART	609900.00	4200780.00	46.09	46.09
DISCCART	609900.00	4200800.00	46.10	46.10
DISCCART	609900.00	4200820.00	46.16	46.16
DISCCART	609900.00	4200840.00	46.32	46.32
DISCCART	609900.00	4200860.00	46.35	46.35
DISCCART	609900.00	4200880.00	46.17	46.17
DISCCART	609900.00	4200900.00	46.07	46.07
DISCCART	609900.00	4200920.00	45.96	45.96
DISCCART	609900.00	4200940.00	45.97	45.97
DISCCART	609900.00	4200960.00	45.99	45.99
DISCCART	609920.00	4199560.00	67.61	92.69
DISCCART	609920.00	4199580.00	66.28	92.69
DISCCART	609920.00	4199600.00	66.49	92.69
DISCCART	609920.00	4199620.00	67.00	92.69
DISCCART	609920.00	4199640.00	67.56	92.69
DISCCART	609920.00	4199660.00	69.83	92.69
DISCCART	609920.00	4199680.00	72.07	92.69
DISCCART	609920.00	4199700.00	74.50	83.88
DISCCART	609920.00	4199720.00	77.41	82.12
DISCCART	609920.00	4199740.00	78.48	80.41
DISCCART	609920.00	4199760.00	77.23	80.86
DISCCART	609920.00	4199780.00	74.72	81.49
DISCCART	609920.00	4199800.00	71.64	84.22
DISCCART	609920.00	4199820.00	68.83	85.92

Modeled Receptors

DISCCART	609920.00	4199840.00	66.24	90.76
DISCCART	609920.00	4199860.00	63.73	92.69
DISCCART	609920.00	4200680.00	45.99	45.99
DISCCART	609920.00	4200700.00	45.92	45.92
DISCCART	609920.00	4200720.00	45.82	45.82
DISCCART	609920.00	4200740.00	45.88	45.88
DISCCART	609920.00	4200760.00	45.86	45.86
DISCCART	609920.00	4200780.00	45.87	45.87
DISCCART	609920.00	4200800.00	45.93	45.93
DISCCART	609920.00	4200820.00	46.04	46.04
DISCCART	609920.00	4200840.00	46.07	46.07
DISCCART	609920.00	4200860.00	46.03	46.03
DISCCART	609920.00	4200880.00	45.90	45.90
DISCCART	609920.00	4200900.00	45.85	45.85
DISCCART	609920.00	4200920.00	45.77	45.77
DISCCART	609920.00	4200940.00	45.85	45.85
DISCCART	609920.00	4200960.00	45.90	45.90
DISCCART	609940.00	4199560.00	67.03	92.69
DISCCART	609940.00	4199580.00	64.88	92.69
DISCCART	609940.00	4199600.00	63.98	92.69
DISCCART	609940.00	4199620.00	64.45	92.69
DISCCART	609940.00	4199640.00	65.82	92.69
DISCCART	609940.00	4199660.00	68.06	92.69
DISCCART	609940.00	4199680.00	70.32	92.69

Modeled Receptors

DISCCART	609940.00	4199700.00	72.64	83.19
DISCCART	609940.00	4199720.00	74.93	82.12
DISCCART	609940.00	4199740.00	76.00	80.86
DISCCART	609940.00	4199760.00	75.30	80.86
DISCCART	609940.00	4199780.00	72.94	82.12
DISCCART	609940.00	4199800.00	69.78	84.22
DISCCART	609940.00	4199820.00	66.89	86.80
DISCCART	609940.00	4199840.00	64.27	92.69
DISCCART	609940.00	4199860.00	62.36	92.69
DISCCART	609940.00	4200680.00	45.83	45.83
DISCCART	609940.00	4200700.00	45.71	45.71
DISCCART	609940.00	4200720.00	45.65	45.65
DISCCART	609940.00	4200740.00	45.57	45.57
DISCCART	609940.00	4200760.00	45.65	45.65
DISCCART	609940.00	4200780.00	45.70	45.70
DISCCART	609940.00	4200800.00	45.85	45.85
DISCCART	609940.00	4200820.00	45.92	45.92
DISCCART	609940.00	4200840.00	45.89	45.89
DISCCART	609940.00	4200860.00	45.79	45.79
DISCCART	609940.00	4200880.00	45.67	45.67
DISCCART	609940.00	4200900.00	45.67	45.67
DISCCART	609940.00	4200920.00	45.69	45.69
DISCCART	609940.00	4200940.00	45.77	45.77
DISCCART	609940.00	4200960.00	45.81	45.81

Modeled Receptors

```
DISCCART    609940.00  4200980.00    45.87    45.87
DISCCART    609960.00  4199580.00    63.37    92.69
DISCCART    609960.00  4199600.00    61.67    92.69
DISCCART    609960.00  4199620.00    61.91    92.69
DISCCART    609960.00  4199640.00    63.64    92.69
DISCCART    609960.00  4199660.00    66.05    92.69
DISCCART    609960.00  4199680.00    68.49    92.69
DISCCART    609960.00  4199700.00    70.69    83.19
DISCCART    609960.00  4199720.00    72.90    82.12
DISCCART    609960.00  4199740.00    74.14    80.86
DISCCART    609960.00  4199760.00    73.41    80.86
DISCCART    609960.00  4199780.00    70.59    82.12
DISCCART    609960.00  4199800.00    67.37    85.21
DISCCART    609960.00  4199820.00    64.04    92.69
DISCCART    609960.00  4199840.00    61.59    92.69
DISCCART    609960.00  4199860.00    59.49    92.69
DISCCART    609960.00  4200680.00    45.51    45.51
DISCCART    609960.00  4200700.00    45.54    45.54
DISCCART    609960.00  4200720.00    45.50    45.50
DISCCART    609960.00  4200740.00    45.45    45.45
DISCCART    609960.00  4200760.00    45.52    45.52
DISCCART    609960.00  4200780.00    45.73    45.73
DISCCART    609960.00  4200800.00    45.70    45.70
DISCCART    609960.00  4200820.00    45.76    45.76
```

Modeled Receptors

```
DISCCART    609960.00  4200840.00    45.66    45.66
DISCCART    609960.00  4200860.00    45.57    45.57
DISCCART    609960.00  4200880.00    45.47    45.47
DISCCART    609960.00  4200900.00    45.55    45.55
DISCCART    609960.00  4200920.00    45.64    45.64
DISCCART    609960.00  4200940.00    45.68    45.68
DISCCART    609960.00  4200960.00    45.70    45.70
DISCCART    609960.00  4200980.00    45.72    45.72
DISCCART    609980.00  4199580.00    62.31    92.69
DISCCART    609980.00  4199600.00    60.73    92.69
DISCCART    609980.00  4199620.00    60.34    92.69
DISCCART    609980.00  4199640.00    61.37    92.69
DISCCART    609980.00  4199660.00    63.47    92.69
DISCCART    609980.00  4199680.00    66.17    92.69
DISCCART    609980.00  4199700.00    68.54    83.88
DISCCART    609980.00  4199720.00    70.14    82.12
DISCCART    609980.00  4199740.00    70.99    82.12
DISCCART    609980.00  4199760.00    70.43    82.12
DISCCART    609980.00  4199780.00    68.18    82.34
DISCCART    609980.00  4199800.00    64.20    90.76
DISCCART    609980.00  4199820.00    60.53    92.69
DISCCART    609980.00  4199840.00    57.79    92.69
DISCCART    609980.00  4199860.00    55.95    92.69
DISCCART    609980.00  4200680.00    45.30    45.30
```

Modeled Receptors

```
DISCCART    609980.00  4200700.00    45.24    45.24
DISCCART    609980.00  4200720.00    45.19    45.19
DISCCART    609980.00  4200740.00    45.28    45.28
DISCCART    609980.00  4200760.00    45.32    45.32
DISCCART    609980.00  4200780.00    45.49    45.49
DISCCART    609980.00  4200800.00    45.61    45.61
DISCCART    609980.00  4200820.00    45.53    45.53
DISCCART    609980.00  4200840.00    45.43    45.43
DISCCART    609980.00  4200860.00    45.37    45.37
DISCCART    609980.00  4200880.00    45.39    45.39
DISCCART    609980.00  4200900.00    45.45    45.45
DISCCART    609980.00  4200920.00    45.47    45.47
DISCCART    609980.00  4200940.00    45.50    45.50
DISCCART    609980.00  4200960.00    45.50    45.50
DISCCART    609980.00  4200980.00    45.39    45.39
DISCCART    610000.00  4199580.00    61.31    92.69
DISCCART    610000.00  4199600.00    59.94    92.69
DISCCART    610000.00  4199620.00    59.10    92.69
DISCCART    610000.00  4199640.00    59.60    92.69
DISCCART    610000.00  4199660.00    61.09    92.69
DISCCART    610000.00  4199680.00    63.40    92.69
DISCCART    610000.00  4199700.00    65.54    90.76
DISCCART    610000.00  4199720.00    67.37    82.34
DISCCART    610000.00  4199740.00    68.24    82.12
```

Modeled Receptors

```
DISCCART    610000.00  4199760.00    67.65    82.12
DISCCART    610000.00  4199780.00    64.72    84.85
DISCCART    610000.00  4199800.00    60.36    92.69
DISCCART    610000.00  4199820.00    56.36    92.69
DISCCART    610000.00  4199840.00    54.63    92.69
DISCCART    610000.00  4199860.00    53.68    92.69
DISCCART    610000.00  4200680.00    45.00    45.00
DISCCART    610000.00  4200700.00    44.93    44.93
DISCCART    610000.00  4200720.00    44.97    44.97
DISCCART    610000.00  4200740.00    45.03    45.03
DISCCART    610000.00  4200760.00    45.24    45.24
DISCCART    610000.00  4200780.00    45.37    45.37
DISCCART    610000.00  4200800.00    45.41    45.41
DISCCART    610000.00  4200820.00    45.27    45.27
DISCCART    610000.00  4200840.00    45.23    45.23
DISCCART    610000.00  4200860.00    45.21    45.21
DISCCART    610000.00  4200880.00    45.27    45.27
DISCCART    610000.00  4200900.00    45.34    45.34
DISCCART    610000.00  4200920.00    45.36    45.36
DISCCART    610000.00  4200940.00    45.25    45.25
DISCCART    610000.00  4200960.00    45.17    45.17
DISCCART    610000.00  4200980.00    45.09    45.09
DISCCART    610020.00  4199580.00    60.13    92.69
DISCCART    610020.00  4199600.00    58.48    92.69
```

Modeled Receptors

DISCCART	610020.00	4199620.00	57.24	92.69
DISCCART	610020.00	4199640.00	57.12	92.69
DISCCART	610020.00	4199660.00	58.74	92.69
DISCCART	610020.00	4199680.00	60.52	92.69
DISCCART	610020.00	4199700.00	62.21	92.69
DISCCART	610020.00	4199720.00	63.53	90.76
DISCCART	610020.00	4199740.00	64.12	84.46
DISCCART	610020.00	4199760.00	63.48	84.85
DISCCART	610020.00	4199780.00	60.81	92.09
DISCCART	610020.00	4199800.00	56.22	92.69
DISCCART	610020.00	4199820.00	54.16	92.69
DISCCART	610020.00	4199840.00	53.09	92.69
DISCCART	610020.00	4199860.00	51.93	92.69
DISCCART	610020.00	4200680.00	44.75	44.75
DISCCART	610020.00	4200700.00	44.69	44.69
DISCCART	610020.00	4200720.00	44.76	44.76
DISCCART	610020.00	4200740.00	44.92	44.92
DISCCART	610020.00	4200760.00	45.12	45.12
DISCCART	610020.00	4200780.00	45.17	45.17
DISCCART	610020.00	4200800.00	45.11	45.11
DISCCART	610020.00	4200820.00	45.07	45.07
DISCCART	610020.00	4200840.00	45.10	45.10
DISCCART	610020.00	4200860.00	45.13	45.13
DISCCART	610020.00	4200880.00	45.18	45.18

Modeled Receptors

DISCCART	610020.00	4200900.00	45.09	45.09
DISCCART	610020.00	4200920.00	45.01	45.01
DISCCART	610020.00	4200940.00	44.97	44.97
DISCCART	610020.00	4200960.00	44.97	44.97
DISCCART	610020.00	4200980.00	44.93	44.93
DISCCART	610040.00	4199580.00	59.26	92.69
DISCCART	610040.00	4199600.00	57.38	92.69
DISCCART	610040.00	4199620.00	55.85	92.69
DISCCART	610040.00	4199640.00	55.17	92.69
DISCCART	610040.00	4199660.00	56.14	92.69
DISCCART	610040.00	4199680.00	57.65	92.69
DISCCART	610040.00	4199700.00	58.95	92.69
DISCCART	610040.00	4199720.00	59.78	92.69
DISCCART	610040.00	4199740.00	60.08	92.09
DISCCART	610040.00	4199760.00	59.13	92.69
DISCCART	610040.00	4199780.00	56.48	92.69
DISCCART	610040.00	4199800.00	54.13	92.69
DISCCART	610040.00	4199820.00	52.48	92.69
DISCCART	610040.00	4199840.00	51.52	92.69
DISCCART	610040.00	4199860.00	50.91	92.69
DISCCART	610040.00	4200700.00	44.63	44.63
DISCCART	610040.00	4200720.00	44.70	44.70
DISCCART	610040.00	4200740.00	44.89	44.89
DISCCART	610040.00	4200760.00	45.00	45.00

Modeled Receptors

DISCCART	610040.00	4200780.00	45.00	45.00
DISCCART	610040.00	4200800.00	44.96	44.96
DISCCART	610040.00	4200820.00	44.97	44.97
DISCCART	610040.00	4200840.00	45.00	45.00
DISCCART	610040.00	4200860.00	44.95	44.95
DISCCART	610040.00	4200880.00	44.87	44.87
DISCCART	610040.00	4200900.00	44.82	44.82
DISCCART	610040.00	4200920.00	44.81	44.81
DISCCART	610040.00	4200940.00	44.82	44.82
DISCCART	610040.00	4200960.00	44.79	44.79
DISCCART	610040.00	4200980.00	44.89	44.89
DISCCART	610060.00	4199580.00	59.11	90.76
DISCCART	610060.00	4199600.00	56.56	92.69
DISCCART	610060.00	4199620.00	54.98	92.69
DISCCART	610060.00	4199640.00	54.76	92.69
DISCCART	610060.00	4199660.00	55.10	92.69
DISCCART	610060.00	4199680.00	55.45	92.69
DISCCART	610060.00	4199700.00	56.00	92.69
DISCCART	610060.00	4199720.00	56.22	92.69
DISCCART	610060.00	4199740.00	56.34	92.69
DISCCART	610060.00	4199760.00	55.57	92.69
DISCCART	610060.00	4199780.00	54.19	92.69
DISCCART	610060.00	4199800.00	52.34	92.69
DISCCART	610060.00	4199820.00	50.95	92.69

Modeled Receptors

DISCCART	610060.00	4199840.00	50.73	92.69
DISCCART	610060.00	4199860.00	50.24	92.69
DISCCART	610060.00	4200700.00	44.63	44.63
DISCCART	610060.00	4200720.00	44.68	44.68
DISCCART	610060.00	4200740.00	44.83	44.83
DISCCART	610060.00	4200760.00	44.83	44.83
DISCCART	610060.00	4200780.00	44.79	44.79
DISCCART	610060.00	4200800.00	44.78	44.78
DISCCART	610060.00	4200820.00	44.77	44.77
DISCCART	610060.00	4200840.00	44.69	44.69
DISCCART	610060.00	4200860.00	44.67	44.67
DISCCART	610060.00	4200880.00	44.63	44.63
DISCCART	610060.00	4200900.00	44.61	44.61
DISCCART	610060.00	4200920.00	44.65	44.65
DISCCART	610060.00	4200940.00	44.70	44.70
DISCCART	610060.00	4200960.00	44.75	44.75
DISCCART	610060.00	4200980.00	44.75	44.75
DISCCART	610080.00	4199580.00	59.40	82.04
DISCCART	610080.00	4199600.00	56.39	92.69
DISCCART	610080.00	4199620.00	54.76	92.69
DISCCART	610080.00	4199640.00	54.25	92.69
DISCCART	610080.00	4199660.00	54.66	92.69
DISCCART	610080.00	4199680.00	55.07	92.69
DISCCART	610080.00	4199700.00	55.10	92.69

Modeled Receptors

DISCCART	610080.00	4199720.00	54.76	92.69
DISCCART	610080.00	4199740.00	54.39	92.69
DISCCART	610080.00	4199760.00	53.82	92.69
DISCCART	610080.00	4199780.00	52.62	92.69
DISCCART	610080.00	4199800.00	51.36	92.69
DISCCART	610080.00	4199820.00	51.00	92.69
DISCCART	610080.00	4199840.00	50.60	92.69
DISCCART	610080.00	4199860.00	50.78	92.69
DISCCART	610080.00	4200700.00	44.64	44.64
DISCCART	610080.00	4200720.00	44.71	44.71
DISCCART	610080.00	4200740.00	44.67	44.67
DISCCART	610080.00	4200760.00	44.67	44.67
DISCCART	610080.00	4200780.00	44.67	44.67
DISCCART	610080.00	4200800.00	44.59	44.59
DISCCART	610080.00	4200820.00	44.47	44.47
DISCCART	610080.00	4200840.00	44.47	44.47
DISCCART	610080.00	4200860.00	44.43	44.43
DISCCART	610080.00	4200880.00	44.47	44.47
DISCCART	610080.00	4200900.00	44.57	44.57
DISCCART	610080.00	4200920.00	44.55	44.55
DISCCART	610080.00	4200940.00	44.58	44.58
DISCCART	610080.00	4200960.00	44.58	44.58
DISCCART	610080.00	4200980.00	44.49	44.49
DISCCART	610100.00	4199580.00	59.40	82.04

Modeled Receptors

DISCCART	610100.00	4199600.00	56.27	82.12
DISCCART	610100.00	4199620.00	54.73	92.69
DISCCART	610100.00	4199640.00	54.09	92.69
DISCCART	610100.00	4199660.00	54.20	92.69
DISCCART	610100.00	4199680.00	54.37	92.69
DISCCART	610100.00	4199700.00	53.93	92.69
DISCCART	610100.00	4199720.00	53.46	92.69
DISCCART	610100.00	4199740.00	52.69	92.69
DISCCART	610100.00	4199760.00	52.20	92.69
DISCCART	610100.00	4199780.00	51.62	92.69
DISCCART	610100.00	4199800.00	51.60	92.69
DISCCART	610100.00	4199820.00	51.78	92.69
DISCCART	610100.00	4199840.00	52.02	89.66
DISCCART	610100.00	4199860.00	52.36	84.85
DISCCART	610100.00	4200700.00	44.74	44.74
DISCCART	610100.00	4200720.00	44.63	44.63
DISCCART	610100.00	4200740.00	44.56	44.56
DISCCART	610100.00	4200760.00	44.45	44.45
DISCCART	610100.00	4200780.00	44.30	44.30
DISCCART	610100.00	4200800.00	44.21	44.21
DISCCART	610100.00	4200820.00	44.30	44.30
DISCCART	610100.00	4200840.00	44.27	44.27
DISCCART	610100.00	4200860.00	44.29	44.29
DISCCART	610100.00	4200880.00	44.27	44.27

Modeled Receptors

DISCCART	610100.00	4200900.00	44.27	44.27
DISCCART	610100.00	4200920.00	44.27	44.27
DISCCART	610100.00	4200940.00	44.27	44.27
DISCCART	610100.00	4200960.00	44.27	44.27
DISCCART	610100.00	4200980.00	44.27	44.27
DISCCART	610120.00	4199580.00	58.45	82.04
DISCCART	610120.00	4199600.00	55.73	82.04
DISCCART	610120.00	4199620.00	54.43	82.12
DISCCART	610120.00	4199640.00	53.75	90.76
DISCCART	610120.00	4199660.00	53.59	90.76
DISCCART	610120.00	4199680.00	53.22	90.82
DISCCART	610120.00	4199700.00	52.67	92.69
DISCCART	610120.00	4199720.00	52.26	92.69
DISCCART	610120.00	4199740.00	51.79	92.69
DISCCART	610120.00	4199760.00	51.70	92.69
DISCCART	610120.00	4199780.00	52.09	90.76
DISCCART	610120.00	4199800.00	52.30	85.21
DISCCART	610120.00	4199820.00	52.79	83.88
DISCCART	610120.00	4199840.00	53.38	82.12
DISCCART	610120.00	4199860.00	53.99	81.18
DISCCART	610120.00	4200700.00	44.65	44.65
DISCCART	610120.00	4200720.00	44.53	44.53
DISCCART	610120.00	4200740.00	44.27	44.27
DISCCART	610120.00	4200760.00	44.10	44.10

Modeled Receptors

DISCCART	610120.00	4200780.00	44.08	44.08
DISCCART	610120.00	4200800.00	44.04	44.04
DISCCART	610120.00	4200820.00	44.01	44.01
DISCCART	610120.00	4200840.00	44.00	44.00
DISCCART	610120.00	4200860.00	43.97	43.97
DISCCART	610120.00	4200880.00	43.97	43.97
DISCCART	610120.00	4200900.00	44.04	44.04
DISCCART	610120.00	4200920.00	44.07	44.07
DISCCART	610120.00	4200940.00	44.07	44.07
DISCCART	610120.00	4200960.00	44.13	44.13
DISCCART	610120.00	4200980.00	44.13	44.13
DISCCART	610140.00	4199580.00	56.66	82.04
DISCCART	610140.00	4199600.00	54.96	82.04
DISCCART	610140.00	4199620.00	54.01	82.12
DISCCART	610140.00	4199640.00	53.21	82.12
DISCCART	610140.00	4199660.00	52.81	82.34
DISCCART	610140.00	4199680.00	52.29	90.02
DISCCART	610140.00	4199700.00	51.98	90.76
DISCCART	610140.00	4199720.00	51.77	90.76
DISCCART	610140.00	4199740.00	51.68	84.85
DISCCART	610140.00	4199760.00	52.09	84.46
DISCCART	610140.00	4199780.00	52.78	82.34
DISCCART	610140.00	4199800.00	53.33	82.12
DISCCART	610140.00	4199820.00	54.10	81.03

Modeled Receptors

DISCCART	610140.00	4199840.00	54.70	79.62
DISCCART	610140.00	4199860.00	55.32	69.52
DISCCART	610140.00	4200700.00	44.15	44.15
DISCCART	610140.00	4200720.00	44.11	44.11
DISCCART	610140.00	4200740.00	43.93	43.93
DISCCART	610140.00	4200760.00	43.92	43.92
DISCCART	610140.00	4200780.00	43.80	43.80
DISCCART	610140.00	4200800.00	43.76	43.76
DISCCART	610140.00	4200820.00	43.71	43.71
DISCCART	610140.00	4200840.00	43.71	43.71
DISCCART	610140.00	4200860.00	43.78	43.78
DISCCART	610140.00	4200880.00	43.77	43.77
DISCCART	610140.00	4200900.00	43.85	43.85
DISCCART	610140.00	4200920.00	43.87	43.87
DISCCART	610140.00	4200940.00	43.92	43.92
DISCCART	610140.00	4200960.00	43.97	43.97
DISCCART	610140.00	4200980.00	43.97	43.97
DISCCART	610160.00	4199580.00	55.20	82.04
DISCCART	610160.00	4199600.00	54.26	82.04
DISCCART	610160.00	4199620.00	53.33	82.04
DISCCART	610160.00	4199640.00	52.81	82.12
DISCCART	610160.00	4199660.00	52.27	82.12
DISCCART	610160.00	4199680.00	51.79	82.12
DISCCART	610160.00	4199700.00	51.60	82.12

Modeled Receptors

DISCCART	610160.00	4199720.00	51.75	82.12
DISCCART	610160.00	4199740.00	52.18	82.12
DISCCART	610160.00	4199760.00	52.80	82.12
DISCCART	610160.00	4199780.00	53.61	80.86
DISCCART	610160.00	4199800.00	54.41	69.52
DISCCART	610160.00	4199820.00	55.15	69.52
DISCCART	610160.00	4199840.00	56.16	69.52
DISCCART	610160.00	4199860.00	57.30	69.52
DISCCART	610160.00	4200700.00	43.68	43.68
DISCCART	610160.00	4200720.00	43.61	43.61
DISCCART	610160.00	4200740.00	43.61	43.61
DISCCART	610160.00	4200760.00	43.60	43.60
DISCCART	610160.00	4200780.00	43.57	43.57
DISCCART	610160.00	4200800.00	43.56	43.56
DISCCART	610160.00	4200820.00	43.47	43.47
DISCCART	610160.00	4200840.00	43.55	43.55
DISCCART	610160.00	4200860.00	43.57	43.57
DISCCART	610160.00	4200880.00	43.62	43.62
DISCCART	610160.00	4200900.00	43.67	43.67
DISCCART	610160.00	4200920.00	43.75	43.75
DISCCART	610160.00	4200940.00	43.77	43.77
DISCCART	610160.00	4200960.00	43.77	43.77
DISCCART	610160.00	4200980.00	43.83	43.83
DISCCART	610180.00	4199580.00	54.40	82.04

Modeled Receptors

DISCCART	610180.00	4199600.00	53.39	82.04
DISCCART	610180.00	4199620.00	52.65	82.04
DISCCART	610180.00	4199640.00	52.23	82.04
DISCCART	610180.00	4199660.00	51.89	81.73
DISCCART	610180.00	4199680.00	51.57	82.12
DISCCART	610180.00	4199700.00	51.56	82.12
DISCCART	610180.00	4199720.00	52.17	80.41
DISCCART	610180.00	4199740.00	52.94	69.52
DISCCART	610180.00	4199760.00	53.75	69.52
DISCCART	610180.00	4199780.00	54.61	69.52
DISCCART	610180.00	4199800.00	55.44	69.52
DISCCART	610180.00	4199820.00	56.77	69.52
DISCCART	610180.00	4199840.00	58.20	69.52
DISCCART	610180.00	4199860.00	59.56	69.52
DISCCART	610180.00	4200700.00	43.27	43.27
DISCCART	610180.00	4200720.00	43.31	43.31
DISCCART	610180.00	4200740.00	43.37	43.37
DISCCART	610180.00	4200760.00	43.37	43.37
DISCCART	610180.00	4200780.00	43.37	43.37
DISCCART	610180.00	4200800.00	43.37	43.37
DISCCART	610180.00	4200820.00	43.38	43.38
DISCCART	610180.00	4200840.00	43.37	43.37
DISCCART	610180.00	4200860.00	43.39	43.39
DISCCART	610180.00	4200880.00	43.47	43.47

Modeled Receptors

DISCCART	610180.00	4200900.00	43.55	43.55
DISCCART	610180.00	4200920.00	43.57	43.57
DISCCART	610180.00	4200940.00	43.62	43.62
DISCCART	610180.00	4200960.00	43.67	43.67
DISCCART	610180.00	4200980.00	43.67	43.67
DISCCART	610200.00	4199580.00	54.07	82.04
DISCCART	610200.00	4199600.00	52.99	82.04
DISCCART	610200.00	4199620.00	52.33	82.04
DISCCART	610200.00	4199640.00	51.99	82.04
DISCCART	610200.00	4199660.00	51.96	81.13
DISCCART	610200.00	4199680.00	51.87	51.87
DISCCART	610200.00	4199700.00	52.22	68.15
DISCCART	610200.00	4199720.00	52.95	69.28
DISCCART	610200.00	4199740.00	53.75	69.52
DISCCART	610200.00	4199760.00	54.65	69.52
DISCCART	610200.00	4199780.00	55.60	69.52
DISCCART	610200.00	4199800.00	57.22	69.52
DISCCART	610200.00	4199820.00	58.85	69.52
DISCCART	610200.00	4199840.00	60.37	69.52
DISCCART	610200.00	4199860.00	61.88	69.52
DISCCART	610200.00	4200700.00	42.99	42.99
DISCCART	610200.00	4200720.00	43.07	43.07
DISCCART	610200.00	4200740.00	43.18	43.18
DISCCART	610200.00	4200760.00	43.17	43.17

Modeled Receptors

```
DISCCART    610200.00  4200780.00    43.23    43.23
DISCCART    610200.00  4200800.00    43.23    43.23
DISCCART    610200.00  4200820.00    43.23    43.23
DISCCART    610200.00  4200840.00    43.23    43.23
DISCCART    610200.00  4200860.00    43.27    43.27
DISCCART    610200.00  4200880.00    43.35    43.35
DISCCART    610200.00  4200900.00    43.37    43.37
DISCCART    610200.00  4200920.00    43.45    43.45
DISCCART    610200.00  4200940.00    43.47    43.47
DISCCART    610200.00  4200960.00    43.50    43.50
DISCCART    610200.00  4200980.00    43.53    43.53
DISCCART    610220.00  4199580.00    53.87    82.04
DISCCART    610220.00  4199600.00    53.49    82.04
DISCCART    610220.00  4199620.00    52.78    82.04
DISCCART    610220.00  4199640.00    52.47    81.09
DISCCART    610220.00  4199660.00    52.29    52.29
DISCCART    610220.00  4199680.00    52.70    52.70
DISCCART    610220.00  4199700.00    53.24    53.24
DISCCART    610220.00  4199720.00    53.80    69.28
DISCCART    610220.00  4199740.00    54.62    69.50
DISCCART    610220.00  4199760.00    55.62    69.52
DISCCART    610220.00  4199780.00    57.39    69.52
DISCCART    610220.00  4199800.00    59.21    69.52
DISCCART    610220.00  4199820.00    60.98    69.52
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Modeled Receptors

```
DISCCART    610220.00  4199840.00    62.77    69.52
DISCCART    610220.00  4199860.00    64.69    69.52
DISCCART    610220.00  4200700.00    42.72    42.72
DISCCART    610220.00  4200720.00    42.90    42.90
DISCCART    610220.00  4200740.00    42.97    42.97
DISCCART    610220.00  4200760.00    43.05    43.05
DISCCART    610220.00  4200780.00    43.07    43.07
DISCCART    610220.00  4200800.00    43.07    43.07
DISCCART    610220.00  4200820.00    43.07    43.07
DISCCART    610220.00  4200840.00    43.14    43.14
DISCCART    610220.00  4200860.00    43.15    43.15
DISCCART    610220.00  4200880.00    43.20    43.20
DISCCART    610220.00  4200900.00    43.28    43.28
DISCCART    610220.00  4200920.00    43.27    43.27
DISCCART    610220.00  4200940.00    43.35    43.35
DISCCART    610220.00  4200960.00    43.38    43.38
DISCCART    610220.00  4200980.00    43.37    43.37
DISCCART    610240.00  4199580.00    53.81    82.04
DISCCART    610240.00  4199600.00    53.87    81.32
DISCCART    610240.00  4199620.00    53.55    53.55
DISCCART    610240.00  4199640.00    53.12    53.12
DISCCART    610240.00  4199660.00    53.12    53.12
DISCCART    610240.00  4199680.00    53.65    53.65
DISCCART    610240.00  4199700.00    54.09    62.99
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Modeled Receptors

```
DISCCART    610240.00  4199720.00    54.73    69.03
DISCCART    610240.00  4199740.00    55.68    69.40
DISCCART    610240.00  4199760.00    57.46    69.40
DISCCART    610240.00  4199780.00    59.46    69.40
DISCCART    610240.00  4199800.00    61.33    69.40
DISCCART    610240.00  4199820.00    63.21    69.40
DISCCART    610240.00  4199840.00    65.24    69.40
DISCCART    610240.00  4199860.00    67.30    68.45
DISCCART    610240.00  4200700.00    42.45    42.45
DISCCART    610240.00  4200720.00    42.71    42.71
DISCCART    610240.00  4200740.00    42.81    42.81
DISCCART    610240.00  4200760.00    42.87    42.87
DISCCART    610240.00  4200780.00    42.93    42.93
DISCCART    610240.00  4200800.00    42.98    42.98
DISCCART    610240.00  4200820.00    42.97    42.97
DISCCART    610240.00  4200840.00    42.97    42.97
DISCCART    610240.00  4200860.00    43.03    43.03
DISCCART    610240.00  4200880.00    43.07    43.07
DISCCART    610240.00  4200900.00    43.10    43.10
DISCCART    610240.00  4200920.00    43.17    43.17
DISCCART    610240.00  4200940.00    43.17    43.17
DISCCART    610240.00  4200960.00    43.17    43.17
DISCCART    610240.00  4200980.00    43.17    43.17
DISCCART    610260.00  4199580.00    54.22    80.68
```

Modeled Receptors

```
DISCCART    610260.00  4199600.00    54.48    54.48
DISCCART    610260.00  4199620.00    54.24    54.24
DISCCART    610260.00  4199640.00    54.17    54.17
DISCCART    610260.00  4199660.00    54.45    54.45
DISCCART    610260.00  4199680.00    54.55    54.55
DISCCART    610260.00  4199700.00    55.06    63.05
DISCCART    610260.00  4199720.00    55.88    68.55
DISCCART    610260.00  4199740.00    57.56    68.55
DISCCART    610260.00  4199760.00    59.51    68.55
DISCCART    610260.00  4199780.00    61.40    69.03
DISCCART    610260.00  4199800.00    63.13    69.03
DISCCART    610260.00  4199820.00    65.10    69.03
DISCCART    610260.00  4199840.00    67.37    68.15
DISCCART    610260.00  4199860.00    68.81    68.81
DISCCART    610260.00  4200700.00    42.32    42.32
DISCCART    610260.00  4200720.00    42.52    42.52
DISCCART    610260.00  4200740.00    42.68    42.68
DISCCART    610260.00  4200760.00    42.75    42.75
DISCCART    610260.00  4200780.00    42.77    42.77
DISCCART    610260.00  4200800.00    42.84    42.84
DISCCART    610260.00  4200820.00    42.85    42.85
DISCCART    610260.00  4200840.00    42.87    42.87
DISCCART    610260.00  4200860.00    42.90    42.90
DISCCART    610260.00  4200880.00    42.96    42.96
```

Modeled Receptors

DISCCART	610260.00	4200900.00	42.98	42.98
DISCCART	610260.00	4200920.00	42.96	42.96
DISCCART	610260.00	4200940.00	43.02	43.02
DISCCART	610260.00	4200960.00	43.08	43.08
DISCCART	610260.00	4200980.00	43.08	43.08
DISCCART	610280.00	4199580.00	54.86	54.86
DISCCART	610280.00	4199600.00	55.26	55.26
DISCCART	610280.00	4199620.00	55.32	55.32
DISCCART	610280.00	4199640.00	55.30	55.30
DISCCART	610280.00	4199660.00	55.32	55.32
DISCCART	610280.00	4199680.00	55.57	59.82
DISCCART	610280.00	4199700.00	56.41	62.79
DISCCART	610280.00	4199720.00	57.95	63.05
DISCCART	610280.00	4199740.00	59.62	62.71
DISCCART	610280.00	4199760.00	61.41	61.84
DISCCART	610280.00	4199780.00	62.84	66.36
DISCCART	610280.00	4199800.00	64.51	67.94
DISCCART	610280.00	4199820.00	66.47	67.94
DISCCART	610280.00	4199840.00	68.25	68.25
DISCCART	610280.00	4199860.00	68.87	68.87
DISCCART	610280.00	4199880.00	68.51	68.51
DISCCART	610280.00	4200700.00	42.27	42.27
DISCCART	610280.00	4200720.00	42.46	42.46
DISCCART	610280.00	4200740.00	42.55	42.55

Modeled Receptors

DISCCART	610280.00	4200760.00	42.63	42.63
DISCCART	610280.00	4200780.00	42.68	42.68
DISCCART	610280.00	4200800.00	42.67	42.67
DISCCART	610280.00	4200820.00	42.73	42.73
DISCCART	610280.00	4200840.00	42.77	42.77
DISCCART	610280.00	4200860.00	42.77	42.77
DISCCART	610280.00	4200880.00	42.77	42.77
DISCCART	610280.00	4200900.00	42.82	42.82
DISCCART	610280.00	4200920.00	42.87	42.87
DISCCART	610280.00	4200940.00	42.87	42.87
DISCCART	610280.00	4200960.00	42.87	42.87
DISCCART	610280.00	4200980.00	42.87	42.87
DISCCART	610300.00	4199580.00	55.39	55.39
DISCCART	610300.00	4199600.00	55.53	55.53
DISCCART	610300.00	4199620.00	55.71	55.71
DISCCART	610300.00	4199640.00	55.84	55.84
DISCCART	610300.00	4199660.00	56.21	56.21
DISCCART	610300.00	4199680.00	57.18	59.21
DISCCART	610300.00	4199700.00	58.33	59.76
DISCCART	610300.00	4199720.00	59.75	61.19
DISCCART	610300.00	4199740.00	61.40	61.40
DISCCART	610300.00	4199760.00	62.60	62.60
DISCCART	610300.00	4199780.00	63.77	63.77
DISCCART	610300.00	4199800.00	65.39	65.39

Modeled Receptors

DISCCART	610300.00	4199820.00	66.83	66.83
DISCCART	610300.00	4199840.00	67.74	67.74
DISCCART	610300.00	4199860.00	67.70	67.70
DISCCART	610300.00	4199880.00	67.11	67.11
DISCCART	610300.00	4200700.00	42.25	42.25
DISCCART	610300.00	4200720.00	42.35	42.35
DISCCART	610300.00	4200740.00	42.45	42.45
DISCCART	610300.00	4200760.00	42.50	42.50
DISCCART	610300.00	4200780.00	42.55	42.55
DISCCART	610300.00	4200800.00	42.57	42.57
DISCCART	610300.00	4200820.00	42.57	42.57
DISCCART	610300.00	4200840.00	42.63	42.63
DISCCART	610300.00	4200860.00	42.65	42.65
DISCCART	610300.00	4200880.00	42.68	42.68
DISCCART	610300.00	4200900.00	42.67	42.67
DISCCART	610300.00	4200920.00	42.66	42.66
DISCCART	610300.00	4200940.00	42.73	42.73
DISCCART	610300.00	4200960.00	42.73	42.73
DISCCART	610300.00	4200980.00	42.75	42.75
DISCCART	610320.00	4199580.00	55.55	55.55
DISCCART	610320.00	4199600.00	55.97	55.97
DISCCART	610320.00	4199620.00	56.47	56.47
DISCCART	610320.00	4199640.00	57.01	57.01
DISCCART	610320.00	4199660.00	57.61	57.61

Modeled Receptors

DISCCART	610320.00	4199680.00	58.79	58.79
DISCCART	610320.00	4199700.00	59.90	59.90
DISCCART	610320.00	4199720.00	60.76	60.76
DISCCART	610320.00	4199740.00	62.14	62.14
DISCCART	610320.00	4199760.00	63.23	63.23
DISCCART	610320.00	4199780.00	64.13	64.13
DISCCART	610320.00	4199800.00	64.99	64.99
DISCCART	610320.00	4199820.00	65.67	65.67
DISCCART	610320.00	4199840.00	65.95	65.95
DISCCART	610320.00	4199860.00	65.66	67.91
DISCCART	610320.00	4199880.00	64.94	68.36
DISCCART	610320.00	4200260.00	47.37	69.11
DISCCART	610320.00	4200280.00	46.96	46.96
DISCCART	610320.00	4200300.00	46.56	46.56
DISCCART	610320.00	4200320.00	46.14	46.14
DISCCART	610320.00	4200340.00	45.66	45.66
DISCCART	610320.00	4200360.00	45.22	45.22
DISCCART	610320.00	4200700.00	42.14	42.14
DISCCART	610320.00	4200720.00	42.25	42.25
DISCCART	610320.00	4200740.00	42.35	42.35
DISCCART	610320.00	4200760.00	42.37	42.37
DISCCART	610320.00	4200780.00	42.43	42.43
DISCCART	610320.00	4200800.00	42.45	42.45
DISCCART	610320.00	4200820.00	42.48	42.48

Modeled Receptors

DISCCART	610320.00	4200840.00	42.47	42.47
DISCCART	610320.00	4200860.00	42.47	42.47
DISCCART	610320.00	4200880.00	42.52	42.52
DISCCART	610320.00	4200900.00	42.57	42.57
DISCCART	610320.00	4200920.00	42.57	42.57
DISCCART	610320.00	4200940.00	42.57	42.57
DISCCART	610320.00	4200960.00	42.57	42.57
DISCCART	610320.00	4200980.00	42.57	42.57
DISCCART	610340.00	4199580.00	55.63	55.63
DISCCART	610340.00	4199600.00	56.17	56.17
DISCCART	610340.00	4199620.00	56.74	56.74
DISCCART	610340.00	4199640.00	57.44	57.44
DISCCART	610340.00	4199660.00	57.72	57.72
DISCCART	610340.00	4199680.00	58.45	58.45
DISCCART	610340.00	4199700.00	59.65	59.65
DISCCART	610340.00	4199720.00	60.21	60.21
DISCCART	610340.00	4199740.00	61.49	61.49
DISCCART	610340.00	4199760.00	62.47	62.47
DISCCART	610340.00	4199780.00	63.16	63.16
DISCCART	610340.00	4199800.00	63.71	63.71
DISCCART	610340.00	4199820.00	64.03	64.03
DISCCART	610340.00	4199840.00	63.98	63.98
DISCCART	610340.00	4199860.00	63.53	67.98
DISCCART	610340.00	4199880.00	62.95	68.36

Modeled Receptors

DISCCART	610340.00	4200260.00	46.73	46.73
DISCCART	610340.00	4200280.00	46.36	46.36
DISCCART	610340.00	4200300.00	45.96	45.96
DISCCART	610340.00	4200320.00	45.54	45.54
DISCCART	610340.00	4200340.00	45.05	45.05
DISCCART	610340.00	4200360.00	44.62	44.62
DISCCART	610340.00	4200380.00	44.16	44.16
DISCCART	610340.00	4200400.00	43.76	43.76
DISCCART	610340.00	4200420.00	43.40	43.40
DISCCART	610340.00	4200700.00	42.17	42.17
DISCCART	610340.00	4200720.00	42.20	42.20
DISCCART	610340.00	4200740.00	42.24	42.24
DISCCART	610340.00	4200760.00	42.27	42.27
DISCCART	610340.00	4200780.00	42.27	42.27
DISCCART	610340.00	4200800.00	42.27	42.27
DISCCART	610340.00	4200820.00	42.33	42.33
DISCCART	610340.00	4200840.00	42.35	42.35
DISCCART	610340.00	4200860.00	42.37	42.37
DISCCART	610340.00	4200880.00	42.37	42.37
DISCCART	610340.00	4200900.00	42.37	42.37
DISCCART	610340.00	4200920.00	42.40	42.40
DISCCART	610340.00	4200940.00	42.43	42.43
DISCCART	610340.00	4200960.00	42.43	42.43
DISCCART	610340.00	4200980.00	42.43	42.43

Modeled Receptors

DISCCART	610360.00	4199580.00	55.59	55.59
DISCCART	610360.00	4199600.00	56.04	56.04
DISCCART	610360.00	4199620.00	56.77	56.77
DISCCART	610360.00	4199640.00	56.86	56.86
DISCCART	610360.00	4199660.00	55.99	55.99
DISCCART	610360.00	4199680.00	55.81	60.52
DISCCART	610360.00	4199700.00	56.64	62.28
DISCCART	610360.00	4199720.00	57.93	62.82
DISCCART	610360.00	4199740.00	59.43	62.54
DISCCART	610360.00	4199760.00	60.94	61.50
DISCCART	610360.00	4199780.00	61.92	61.92
DISCCART	610360.00	4199800.00	62.31	62.31
DISCCART	610360.00	4199820.00	62.31	62.31
DISCCART	610360.00	4199840.00	62.20	62.20
DISCCART	610360.00	4199860.00	61.67	67.91
DISCCART	610360.00	4199880.00	60.80	68.76
DISCCART	610360.00	4200260.00	46.11	46.11
DISCCART	610360.00	4200280.00	45.82	45.82
DISCCART	610360.00	4200300.00	45.36	45.36
DISCCART	610360.00	4200320.00	44.95	44.95
DISCCART	610360.00	4200340.00	44.45	44.45
DISCCART	610360.00	4200360.00	44.02	44.02
DISCCART	610360.00	4200380.00	43.58	43.58
DISCCART	610360.00	4200400.00	43.34	43.34

Modeled Receptors

DISCCART	610360.00	4200420.00	43.23	43.23
DISCCART	610360.00	4200440.00	43.13	43.13
DISCCART	610360.00	4200460.00	43.02	43.02
DISCCART	610360.00	4200480.00	42.95	42.95
DISCCART	610360.00	4200700.00	42.16	42.16
DISCCART	610360.00	4200720.00	42.07	42.07
DISCCART	610360.00	4200740.00	42.14	42.14
DISCCART	610360.00	4200760.00	42.13	42.13
DISCCART	610360.00	4200780.00	42.15	42.15
DISCCART	610360.00	4200800.00	42.18	42.18
DISCCART	610360.00	4200820.00	42.17	42.17
DISCCART	610360.00	4200840.00	42.17	42.17
DISCCART	610360.00	4200860.00	42.23	42.23
DISCCART	610360.00	4200880.00	42.25	42.25
DISCCART	610360.00	4200900.00	42.27	42.27
DISCCART	610360.00	4200920.00	42.27	42.27
DISCCART	610360.00	4200940.00	42.27	42.27
DISCCART	610360.00	4200960.00	42.27	42.27
DISCCART	610360.00	4200980.00	42.27	42.27
DISCCART	610380.00	4199580.00	55.56	55.56
DISCCART	610380.00	4199600.00	56.08	56.08
DISCCART	610380.00	4199620.00	56.79	56.79
DISCCART	610380.00	4199640.00	55.92	55.92
DISCCART	610380.00	4199660.00	55.38	55.38

Modeled Receptors

DISCCART	610380.00	4199680.00	54.48	60.47
DISCCART	610380.00	4199700.00	54.63	63.35
DISCCART	610380.00	4199720.00	55.62	64.14
DISCCART	610380.00	4199740.00	57.08	63.79
DISCCART	610380.00	4199760.00	58.54	63.27
DISCCART	610380.00	4199780.00	59.62	62.55
DISCCART	610380.00	4199800.00	60.16	62.66
DISCCART	610380.00	4199820.00	60.16	62.68
DISCCART	610380.00	4199840.00	59.86	67.32
DISCCART	610380.00	4199860.00	59.16	68.44
DISCCART	610380.00	4199880.00	58.29	69.14
DISCCART	610380.00	4200260.00	45.55	45.55
DISCCART	610380.00	4200280.00	45.26	45.26
DISCCART	610380.00	4200300.00	44.86	44.86
DISCCART	610380.00	4200320.00	44.39	44.39
DISCCART	610380.00	4200340.00	43.89	43.89
DISCCART	610380.00	4200360.00	43.46	43.46
DISCCART	610380.00	4200380.00	43.26	43.26
DISCCART	610380.00	4200400.00	43.17	43.17
DISCCART	610380.00	4200420.00	43.08	43.08
DISCCART	610380.00	4200440.00	42.98	42.98
DISCCART	610380.00	4200460.00	42.88	42.88
DISCCART	610380.00	4200480.00	42.80	42.80
DISCCART	610380.00	4200500.00	42.70	42.70

Modeled Receptors

DISCCART	610380.00	4200520.00	42.62	42.62
DISCCART	610380.00	4200540.00	42.55	42.55
DISCCART	610380.00	4200560.00	42.48	42.48
DISCCART	610380.00	4200580.00	42.41	42.41
DISCCART	610380.00	4200600.00	42.33	42.33
DISCCART	610380.00	4200620.00	42.23	42.23
DISCCART	610380.00	4200640.00	42.13	42.13
DISCCART	610380.00	4200660.00	41.72	41.72
DISCCART	610380.00	4200680.00	39.25	42.19
DISCCART	610380.00	4200700.00	41.58	41.58
DISCCART	610380.00	4200720.00	42.04	42.04
DISCCART	610380.00	4200740.00	41.98	41.98
DISCCART	610380.00	4200760.00	41.98	41.98
DISCCART	610380.00	4200780.00	41.98	41.98
DISCCART	610380.00	4200800.00	42.00	42.00
DISCCART	610380.00	4200820.00	42.05	42.05
DISCCART	610380.00	4200840.00	42.07	42.07
DISCCART	610380.00	4200860.00	42.07	42.07
DISCCART	610380.00	4200880.00	42.10	42.10
DISCCART	610380.00	4200900.00	42.13	42.13
DISCCART	610380.00	4200920.00	42.15	42.15
DISCCART	610380.00	4200940.00	42.17	42.17
DISCCART	610380.00	4200960.00	42.17	42.17
DISCCART	610380.00	4200980.00	42.17	42.17

Modeled Receptors

DISCCART	610400.00	4199600.00	56.15	56.15
DISCCART	610400.00	4199620.00	56.07	56.07
DISCCART	610400.00	4199640.00	55.59	55.59
DISCCART	610400.00	4199660.00	54.45	54.45
DISCCART	610400.00	4199680.00	53.14	60.20
DISCCART	610400.00	4199700.00	52.40	64.53
DISCCART	610400.00	4199720.00	52.98	66.28
DISCCART	610400.00	4199740.00	54.62	65.42
DISCCART	610400.00	4199760.00	56.23	64.35
DISCCART	610400.00	4199780.00	57.19	63.82
DISCCART	610400.00	4199800.00	57.72	64.00
DISCCART	610400.00	4199820.00	57.75	66.41
DISCCART	610400.00	4199840.00	57.30	68.44
DISCCART	610400.00	4199860.00	56.56	68.83
DISCCART	610400.00	4199880.00	55.82	69.37
DISCCART	610400.00	4200260.00	45.01	45.01
DISCCART	610400.00	4200280.00	44.74	44.74
DISCCART	610400.00	4200300.00	44.36	44.36
DISCCART	610400.00	4200320.00	43.87	43.87
DISCCART	610400.00	4200340.00	43.44	43.44
DISCCART	610400.00	4200360.00	43.23	43.23
DISCCART	610400.00	4200380.00	43.14	43.14
DISCCART	610400.00	4200400.00	43.00	43.00
DISCCART	610400.00	4200420.00	42.93	42.93

Modeled Receptors

DISCCART	610400.00	4200440.00	42.82	42.82
DISCCART	610400.00	4200460.00	42.75	42.75
DISCCART	610400.00	4200480.00	42.68	42.68
DISCCART	610400.00	4200500.00	42.59	42.59
DISCCART	610400.00	4200520.00	42.48	42.48
DISCCART	610400.00	4200540.00	42.44	42.44
DISCCART	610400.00	4200560.00	42.38	42.38
DISCCART	610400.00	4200580.00	42.33	42.33
DISCCART	610400.00	4200600.00	42.26	42.26
DISCCART	610400.00	4200620.00	42.21	42.21
DISCCART	610400.00	4200640.00	42.11	42.11
DISCCART	610400.00	4200660.00	42.06	42.06
DISCCART	610400.00	4200680.00	40.60	42.00
DISCCART	610400.00	4200700.00	39.20	42.08
DISCCART	610400.00	4200720.00	41.17	41.17
DISCCART	610400.00	4200740.00	41.67	41.67
DISCCART	610400.00	4200760.00	41.74	41.74
DISCCART	610400.00	4200780.00	41.79	41.79
DISCCART	610400.00	4200800.00	41.85	41.85
DISCCART	610400.00	4200820.00	41.90	41.90
DISCCART	610400.00	4200840.00	41.93	41.93
DISCCART	610400.00	4200860.00	41.97	41.97
DISCCART	610400.00	4200880.00	41.97	41.97
DISCCART	610400.00	4200900.00	41.97	41.97

Modeled Receptors

DISCCART	610400.00	4200920.00	42.03	42.03
DISCCART	610400.00	4200940.00	42.03	42.03
DISCCART	610400.00	4200960.00	42.03	42.03
DISCCART	610400.00	4200980.00	42.03	42.03
DISCCART	610420.00	4199600.00	55.94	55.94
DISCCART	610420.00	4199620.00	55.70	55.70
DISCCART	610420.00	4199640.00	55.23	55.23
DISCCART	610420.00	4199660.00	53.66	53.66
DISCCART	610420.00	4199680.00	51.87	52.90
DISCCART	610420.00	4199700.00	50.29	65.84
DISCCART	610420.00	4199720.00	49.90	68.55
DISCCART	610420.00	4199740.00	51.38	68.38
DISCCART	610420.00	4199760.00	53.13	67.98
DISCCART	610420.00	4199780.00	54.58	66.76
DISCCART	610420.00	4199800.00	55.35	66.41
DISCCART	610420.00	4199820.00	55.29	67.98
DISCCART	610420.00	4199840.00	54.80	68.83
DISCCART	610420.00	4199860.00	54.07	69.14
DISCCART	610420.00	4199880.00	53.32	69.37
DISCCART	610420.00	4200260.00	44.37	44.37
DISCCART	610420.00	4200280.00	44.20	44.20
DISCCART	610420.00	4200300.00	43.84	43.84
DISCCART	610420.00	4200320.00	43.44	43.44
DISCCART	610420.00	4200340.00	43.23	43.23

Modeled Receptors

DISCCART	610420.00	4200360.00	43.05	43.05
DISCCART	610420.00	4200380.00	42.92	42.92
DISCCART	610420.00	4200400.00	42.83	42.83
DISCCART	610420.00	4200420.00	42.72	42.72
DISCCART	610420.00	4200440.00	42.66	42.66
DISCCART	610420.00	4200460.00	42.58	42.58
DISCCART	610420.00	4200480.00	42.50	42.50
DISCCART	610420.00	4200500.00	42.42	42.42
DISCCART	610420.00	4200520.00	42.36	42.36
DISCCART	610420.00	4200540.00	42.27	42.27
DISCCART	610420.00	4200560.00	42.28	42.28
DISCCART	610420.00	4200580.00	42.21	42.21
DISCCART	610420.00	4200600.00	42.16	42.16
DISCCART	610420.00	4200620.00	42.11	42.11
DISCCART	610420.00	4200640.00	42.01	42.01
DISCCART	610420.00	4200660.00	41.96	41.96
DISCCART	610420.00	4200680.00	41.65	41.65
DISCCART	610420.00	4200700.00	40.08	40.08
DISCCART	610420.00	4200720.00	39.10	41.91
DISCCART	610420.00	4200740.00	40.40	40.40
DISCCART	610420.00	4200760.00	40.97	40.97
DISCCART	610420.00	4200780.00	41.35	41.35
DISCCART	610420.00	4200800.00	41.51	41.51
DISCCART	610420.00	4200820.00	41.66	41.66

Modeled Receptors

DISCCART	610420.00	4200840.00	41.74	41.74
DISCCART	610420.00	4200860.00	41.77	41.77
DISCCART	610420.00	4200880.00	41.82	41.82
DISCCART	610420.00	4200900.00	41.87	41.87
DISCCART	610420.00	4200920.00	41.87	41.87
DISCCART	610420.00	4200940.00	41.87	41.87
DISCCART	610420.00	4200960.00	41.87	41.87
DISCCART	610420.00	4200980.00	41.87	41.87
DISCCART	610440.00	4199600.00	56.08	56.08
DISCCART	610440.00	4199620.00	55.64	55.64
DISCCART	610440.00	4199640.00	54.78	54.78
DISCCART	610440.00	4199660.00	53.13	53.13
DISCCART	610440.00	4199680.00	51.32	51.32
DISCCART	610440.00	4199700.00	49.55	64.53
DISCCART	610440.00	4199720.00	48.66	68.38
DISCCART	610440.00	4199740.00	48.78	69.03
DISCCART	610440.00	4199760.00	49.86	69.03
DISCCART	610440.00	4199780.00	51.15	68.83
DISCCART	610440.00	4199800.00	51.95	68.83
DISCCART	610440.00	4199820.00	52.10	68.83
DISCCART	610440.00	4199840.00	51.82	69.14
DISCCART	610440.00	4199860.00	51.42	69.37
DISCCART	610440.00	4199880.00	50.83	69.52
DISCCART	610440.00	4200260.00	43.75	43.75

Modeled Receptors

DISCCART	610440.00	4200280.00	43.60	43.60
DISCCART	610440.00	4200300.00	43.39	43.39
DISCCART	610440.00	4200320.00	43.17	43.17
DISCCART	610440.00	4200340.00	43.03	43.03
DISCCART	610440.00	4200360.00	42.84	42.84
DISCCART	610440.00	4200380.00	42.73	42.73
DISCCART	610440.00	4200400.00	42.59	42.59
DISCCART	610440.00	4200420.00	42.52	42.52
DISCCART	610440.00	4200440.00	42.47	42.47
DISCCART	610440.00	4200460.00	42.40	42.40
DISCCART	610440.00	4200480.00	42.35	42.35
DISCCART	610440.00	4200500.00	42.28	42.28
DISCCART	610440.00	4200520.00	42.21	42.21
DISCCART	610440.00	4200540.00	42.18	42.18
DISCCART	610440.00	4200560.00	42.13	42.13
DISCCART	610440.00	4200580.00	42.07	42.07
DISCCART	610440.00	4200600.00	42.03	42.03
DISCCART	610440.00	4200620.00	41.97	41.97
DISCCART	610440.00	4200640.00	41.91	41.91
DISCCART	610440.00	4200660.00	41.72	41.72
DISCCART	610440.00	4200680.00	41.30	41.30
DISCCART	610440.00	4200700.00	40.69	40.69
DISCCART	610440.00	4200720.00	40.42	40.42
DISCCART	610440.00	4200740.00	38.75	40.63

Modeled Receptors

DISCCART	610440.00	4200760.00	40.56	40.56
DISCCART	610440.00	4200780.00	40.89	40.89
DISCCART	610440.00	4200800.00	41.26	41.26
DISCCART	610440.00	4200820.00	41.42	41.42
DISCCART	610440.00	4200840.00	41.52	41.52
DISCCART	610440.00	4200860.00	41.57	41.57
DISCCART	610440.00	4200880.00	41.62	41.62
DISCCART	610440.00	4200900.00	41.67	41.67
DISCCART	610440.00	4200920.00	41.67	41.67
DISCCART	610440.00	4200940.00	41.67	41.67
DISCCART	610440.00	4200960.00	41.67	41.67
DISCCART	610440.00	4200980.00	41.73	41.73
DISCCART	610460.00	4199600.00	56.05	56.05
DISCCART	610460.00	4199620.00	55.57	55.57
DISCCART	610460.00	4199640.00	54.42	54.42
DISCCART	610460.00	4199660.00	52.87	52.87
DISCCART	610460.00	4199680.00	51.18	51.18
DISCCART	610460.00	4199700.00	49.70	49.70
DISCCART	610460.00	4199720.00	48.78	64.96
DISCCART	610460.00	4199740.00	47.94	68.55
DISCCART	610460.00	4199760.00	48.19	68.83
DISCCART	610460.00	4199780.00	48.80	69.03
DISCCART	610460.00	4199800.00	49.25	69.14
DISCCART	610460.00	4199820.00	49.45	69.14

Modeled Receptors

DISCCART	610460.00	4199840.00	49.29	69.37
DISCCART	610460.00	4199860.00	49.05	69.52
DISCCART	610460.00	4199880.00	48.74	69.52
DISCCART	610460.00	4200260.00	43.15	43.15
DISCCART	610460.00	4200280.00	43.10	43.10
DISCCART	610460.00	4200300.00	42.99	42.99
DISCCART	610460.00	4200320.00	42.87	42.87
DISCCART	610460.00	4200340.00	42.66	42.66
DISCCART	610460.00	4200360.00	42.54	42.54
DISCCART	610460.00	4200380.00	42.44	42.44
DISCCART	610460.00	4200400.00	42.38	42.38
DISCCART	610460.00	4200420.00	42.31	42.31
DISCCART	610460.00	4200440.00	42.28	42.28
DISCCART	610460.00	4200460.00	42.22	42.22
DISCCART	610460.00	4200480.00	42.17	42.17
DISCCART	610460.00	4200500.00	42.10	42.10
DISCCART	610460.00	4200520.00	42.08	42.08
DISCCART	610460.00	4200540.00	41.97	41.97
DISCCART	610460.00	4200560.00	41.97	41.97
DISCCART	610460.00	4200580.00	41.93	41.93
DISCCART	610460.00	4200600.00	41.87	41.87
DISCCART	610460.00	4200620.00	41.80	41.80
DISCCART	610460.00	4200640.00	41.69	41.69
DISCCART	610460.00	4200660.00	41.49	41.49

Modeled Receptors

DISCCART	610460.00	4200680.00	41.10	41.10
DISCCART	610460.00	4200700.00	40.66	40.66
DISCCART	610460.00	4200720.00	40.51	40.51
DISCCART	610460.00	4200740.00	39.77	39.77
DISCCART	610460.00	4200760.00	39.76	39.76
DISCCART	610460.00	4200780.00	40.61	40.61
DISCCART	610460.00	4200800.00	40.90	40.90
DISCCART	610460.00	4200820.00	41.15	41.15
DISCCART	610460.00	4200840.00	41.32	41.32
DISCCART	610460.00	4200860.00	41.37	41.37
DISCCART	610460.00	4200880.00	41.47	41.47
DISCCART	610460.00	4200900.00	41.47	41.47
DISCCART	610460.00	4200920.00	41.47	41.47
DISCCART	610460.00	4200940.00	41.47	41.47
DISCCART	610460.00	4200960.00	41.55	41.55
DISCCART	610460.00	4200980.00	41.57	41.57
DISCCART	610480.00	4199600.00	56.42	56.42
DISCCART	610480.00	4199620.00	55.45	55.45
DISCCART	610480.00	4199640.00	54.16	54.16
DISCCART	610480.00	4199660.00	52.88	52.88
DISCCART	610480.00	4199680.00	51.27	68.32
DISCCART	610480.00	4199700.00	49.71	68.69
DISCCART	610480.00	4199720.00	48.91	68.69
DISCCART	610480.00	4199740.00	48.28	68.53

Modeled Receptors

DISCCART	610480.00	4199760.00	47.37	68.38
DISCCART	610480.00	4199780.00	47.47	68.83
DISCCART	610480.00	4199800.00	47.82	68.83
DISCCART	610480.00	4199820.00	48.48	68.83
DISCCART	610480.00	4199840.00	48.09	69.14
DISCCART	610480.00	4199860.00	47.63	69.37
DISCCART	610480.00	4199880.00	47.16	69.52
DISCCART	610480.00	4200260.00	42.54	42.54
DISCCART	610480.00	4200280.00	42.61	42.61
DISCCART	610480.00	4200300.00	42.53	42.53
DISCCART	610480.00	4200320.00	42.47	42.47
DISCCART	610480.00	4200340.00	42.35	42.35
DISCCART	610480.00	4200360.00	42.27	42.27
DISCCART	610480.00	4200380.00	42.19	42.19
DISCCART	610480.00	4200400.00	42.18	42.18
DISCCART	610480.00	4200420.00	42.13	42.13
DISCCART	610480.00	4200440.00	42.07	42.07
DISCCART	610480.00	4200460.00	42.08	42.08
DISCCART	610480.00	4200480.00	41.98	41.98
DISCCART	610480.00	4200500.00	41.95	41.95
DISCCART	610480.00	4200520.00	41.87	41.87
DISCCART	610480.00	4200540.00	41.83	41.83
DISCCART	610480.00	4200560.00	41.77	41.77
DISCCART	610480.00	4200580.00	41.70	41.70

Modeled Receptors

DISCCART	610480.00	4200600.00	41.67	41.67
DISCCART	610480.00	4200620.00	41.56	41.56
DISCCART	610480.00	4200640.00	41.43	41.43
DISCCART	610480.00	4200660.00	41.22	41.22
DISCCART	610480.00	4200680.00	40.95	40.95
DISCCART	610480.00	4200700.00	40.69	40.69
DISCCART	610480.00	4200720.00	40.57	40.57
DISCCART	610480.00	4200740.00	40.09	40.09
DISCCART	610480.00	4200760.00	39.49	39.49
DISCCART	610480.00	4200780.00	40.48	40.48
DISCCART	610480.00	4200800.00	40.71	40.71
DISCCART	610480.00	4200820.00	40.91	40.91
DISCCART	610480.00	4200840.00	41.06	41.06
DISCCART	610480.00	4200860.00	41.16	41.16
DISCCART	610480.00	4200880.00	41.24	41.24
DISCCART	610480.00	4200900.00	41.27	41.27
DISCCART	610480.00	4200920.00	41.27	41.27
DISCCART	610480.00	4200940.00	41.27	41.27
DISCCART	610480.00	4200960.00	41.37	41.37
DISCCART	610500.00	4199600.00	56.53	56.53
DISCCART	610500.00	4199620.00	55.49	55.49
DISCCART	610500.00	4199640.00	54.27	54.27
DISCCART	610500.00	4199660.00	53.02	68.69
DISCCART	610500.00	4199680.00	51.66	68.69

Modeled Receptors

DISCCART	610500.00	4199700.00	50.13	68.69
DISCCART	610500.00	4199720.00	49.11	68.69
DISCCART	610500.00	4199740.00	48.45	68.69
DISCCART	610500.00	4199760.00	47.68	68.69
DISCCART	610500.00	4199780.00	47.12	68.53
DISCCART	610500.00	4199800.00	47.10	67.98
DISCCART	610500.00	4199820.00	47.40	67.98
DISCCART	610500.00	4199840.00	47.12	68.44
DISCCART	610500.00	4199860.00	46.12	69.14
DISCCART	610500.00	4199880.00	45.47	69.37
DISCCART	610500.00	4199900.00	45.04	69.52
DISCCART	610500.00	4199920.00	44.52	69.52
DISCCART	610500.00	4200240.00	42.03	42.03
DISCCART	610500.00	4200260.00	42.12	42.12
DISCCART	610500.00	4200280.00	42.14	42.14
DISCCART	610500.00	4200300.00	42.11	42.11
DISCCART	610500.00	4200320.00	42.10	42.10
DISCCART	610500.00	4200340.00	42.01	42.01
DISCCART	610500.00	4200360.00	41.99	41.99
DISCCART	610500.00	4200380.00	41.98	41.98
DISCCART	610500.00	4200400.00	41.92	41.92
DISCCART	610500.00	4200420.00	41.87	41.87
DISCCART	610500.00	4200440.00	41.88	41.88
DISCCART	610500.00	4200460.00	41.82	41.82

Modeled Receptors

DISCCART	610500.00	4200480.00	41.80	41.80
DISCCART	610500.00	4200500.00	41.69	41.69
DISCCART	610500.00	4200520.00	41.65	41.65
DISCCART	610500.00	4200540.00	41.57	41.57
DISCCART	610500.00	4200560.00	41.49	41.49
DISCCART	610500.00	4200580.00	41.47	41.47
DISCCART	610500.00	4200600.00	41.39	41.39
DISCCART	610500.00	4200620.00	41.34	41.34
DISCCART	610500.00	4200640.00	41.22	41.22
DISCCART	610500.00	4200660.00	41.03	41.03
DISCCART	610500.00	4200680.00	40.81	40.81
DISCCART	610500.00	4200700.00	40.63	40.63
DISCCART	610500.00	4200720.00	40.48	40.48
DISCCART	610500.00	4200740.00	39.43	40.56
DISCCART	610500.00	4200760.00	39.96	39.96
DISCCART	610500.00	4200780.00	40.49	40.49
DISCCART	610500.00	4200800.00	40.59	40.59
DISCCART	610500.00	4200820.00	40.77	40.77
DISCCART	610500.00	4200840.00	40.90	40.90
DISCCART	610500.00	4200860.00	40.97	40.97
DISCCART	610500.00	4200880.00	41.05	41.05
DISCCART	610500.00	4200900.00	41.07	41.07
DISCCART	610500.00	4200920.00	41.07	41.07
DISCCART	610500.00	4200940.00	41.11	41.11

Modeled Receptors

DISCCART	610500.00	4200960.00	41.17	41.17
DISCCART	610520.00	4199600.00	57.22	59.31
DISCCART	610520.00	4199620.00	55.83	68.44
DISCCART	610520.00	4199640.00	54.74	68.69
DISCCART	610520.00	4199660.00	53.69	68.69
DISCCART	610520.00	4199680.00	52.36	68.69
DISCCART	610520.00	4199700.00	50.99	68.69
DISCCART	610520.00	4199720.00	49.65	68.69
DISCCART	610520.00	4199740.00	48.76	68.69
DISCCART	610520.00	4199760.00	48.10	68.69
DISCCART	610520.00	4199780.00	47.60	68.69
DISCCART	610520.00	4199800.00	47.26	68.53
DISCCART	610520.00	4199820.00	47.18	47.18
DISCCART	610520.00	4199840.00	46.45	46.45
DISCCART	610520.00	4199860.00	45.11	68.44
DISCCART	610520.00	4199880.00	44.02	69.14
DISCCART	610520.00	4199900.00	43.61	69.37
DISCCART	610520.00	4200220.00	41.61	41.61
DISCCART	610520.00	4200240.00	41.69	41.69
DISCCART	610520.00	4200260.00	41.71	41.71
DISCCART	610520.00	4200280.00	41.78	41.78
DISCCART	610520.00	4200300.00	41.75	41.75
DISCCART	610520.00	4200320.00	41.71	41.71
DISCCART	610520.00	4200340.00	41.72	41.72

Modeled Receptors

DISCCART	610520.00	4200360.00	41.70	41.70
DISCCART	610520.00	4200380.00	41.61	41.61
DISCCART	610520.00	4200400.00	41.61	41.61
DISCCART	610520.00	4200420.00	41.59	41.59
DISCCART	610520.00	4200440.00	41.54	41.54
DISCCART	610520.00	4200460.00	41.52	41.52
DISCCART	610520.00	4200480.00	41.47	41.47
DISCCART	610520.00	4200500.00	41.42	41.42
DISCCART	610520.00	4200520.00	41.37	41.37
DISCCART	610520.00	4200540.00	41.30	41.30
DISCCART	610520.00	4200560.00	41.27	41.27
DISCCART	610520.00	4200580.00	41.19	41.19
DISCCART	610520.00	4200600.00	41.09	41.09
DISCCART	610520.00	4200620.00	41.04	41.04
DISCCART	610520.00	4200640.00	40.85	40.85
DISCCART	610520.00	4200660.00	40.81	40.81
DISCCART	610520.00	4200680.00	40.69	40.69
DISCCART	610520.00	4200700.00	40.55	40.55
DISCCART	610520.00	4200720.00	40.49	40.49
DISCCART	610520.00	4200740.00	39.01	40.55
DISCCART	610520.00	4200760.00	40.27	40.27
DISCCART	610520.00	4200780.00	40.48	40.48
DISCCART	610520.00	4200800.00	40.58	40.58
DISCCART	610520.00	4200820.00	40.70	40.70

Modeled Receptors

DISCCART	610520.00	4200840.00	40.80	40.80
DISCCART	610520.00	4200860.00	40.85	40.85
DISCCART	610520.00	4200880.00	40.87	40.87
DISCCART	610520.00	4200900.00	40.87	40.87
DISCCART	610520.00	4200920.00	40.89	40.89
DISCCART	610520.00	4200940.00	40.93	40.93
DISCCART	610540.00	4199600.00	58.67	58.67
DISCCART	610540.00	4199620.00	57.02	68.69
DISCCART	610540.00	4199640.00	55.71	68.69
DISCCART	610540.00	4199660.00	54.55	68.69
DISCCART	610540.00	4199680.00	53.31	68.69
DISCCART	610540.00	4199700.00	52.15	68.69
DISCCART	610540.00	4199720.00	50.88	68.69
DISCCART	610540.00	4199740.00	49.60	68.69
DISCCART	610540.00	4199760.00	48.75	68.69
DISCCART	610540.00	4199780.00	48.15	68.69
DISCCART	610540.00	4199800.00	47.78	68.53
DISCCART	610540.00	4199820.00	47.40	47.40
DISCCART	610540.00	4199840.00	46.59	46.59
DISCCART	610540.00	4199860.00	45.07	45.07
DISCCART	610540.00	4199880.00	43.98	43.98
DISCCART	610540.00	4199900.00	43.22	67.91
DISCCART	610540.00	4200180.00	41.22	41.22
DISCCART	610540.00	4200200.00	41.27	41.27

Modeled Receptors

DISCCART	610540.00	4200220.00	41.32	41.32
DISCCART	610540.00	4200240.00	41.33	41.33
DISCCART	610540.00	4200260.00	41.42	41.42
DISCCART	610540.00	4200280.00	41.41	41.41
DISCCART	610540.00	4200300.00	41.41	41.41
DISCCART	610540.00	4200320.00	41.39	41.39
DISCCART	610540.00	4200340.00	41.34	41.34
DISCCART	610540.00	4200360.00	41.31	41.31
DISCCART	610540.00	4200380.00	41.31	41.31
DISCCART	610540.00	4200400.00	41.29	41.29
DISCCART	610540.00	4200420.00	41.24	41.24
DISCCART	610540.00	4200440.00	41.21	41.21
DISCCART	610540.00	4200460.00	41.19	41.19
DISCCART	610540.00	4200480.00	41.14	41.14
DISCCART	610540.00	4200500.00	41.11	41.11
DISCCART	610540.00	4200520.00	41.07	41.07
DISCCART	610540.00	4200540.00	41.01	41.01
DISCCART	610540.00	4200560.00	40.97	40.97
DISCCART	610540.00	4200580.00	40.86	40.86
DISCCART	610540.00	4200600.00	40.87	40.87
DISCCART	610540.00	4200620.00	40.84	40.84
DISCCART	610540.00	4200640.00	40.73	40.73
DISCCART	610540.00	4200660.00	40.67	40.67
DISCCART	610540.00	4200680.00	40.59	40.59

Modeled Receptors

DISCCART	610540.00	4200700.00	40.54	40.54
DISCCART	610540.00	4200720.00	40.44	40.44
DISCCART	610540.00	4200740.00	39.02	40.57
DISCCART	610540.00	4200760.00	40.25	40.25
DISCCART	610540.00	4200780.00	40.48	40.48
DISCCART	610540.00	4200800.00	40.55	40.55
DISCCART	610540.00	4200820.00	40.62	40.62
DISCCART	610540.00	4200840.00	40.67	40.67
DISCCART	610540.00	4200860.00	40.70	40.70
DISCCART	610540.00	4200880.00	40.73	40.73
DISCCART	610540.00	4200900.00	40.77	40.77
DISCCART	610540.00	4200920.00	40.77	40.77
DISCCART	610540.00	4200940.00	40.77	40.77
DISCCART	610560.00	4199600.00	59.99	59.99
DISCCART	610560.00	4199620.00	58.89	68.69
DISCCART	610560.00	4199640.00	57.34	68.69
DISCCART	610560.00	4199660.00	55.68	68.69
DISCCART	610560.00	4199680.00	54.50	68.69
DISCCART	610560.00	4199700.00	53.68	68.69
DISCCART	610560.00	4199720.00	52.66	68.69
DISCCART	610560.00	4199740.00	51.35	68.69
DISCCART	610560.00	4199760.00	50.09	68.69
DISCCART	610560.00	4199780.00	49.21	68.69
DISCCART	610560.00	4199800.00	48.80	68.53

Modeled Receptors

DISCCART	610560.00	4199820.00	48.24	57.99
DISCCART	610560.00	4199840.00	47.32	56.52
DISCCART	610560.00	4199860.00	46.37	46.37
DISCCART	610560.00	4199880.00	45.40	45.40
DISCCART	610560.00	4199900.00	44.45	44.45
DISCCART	610560.00	4200140.00	40.97	40.97
DISCCART	610560.00	4200160.00	40.97	40.97
DISCCART	610560.00	4200180.00	40.97	40.97
DISCCART	610560.00	4200200.00	40.97	40.97
DISCCART	610560.00	4200220.00	40.99	40.99
DISCCART	610560.00	4200240.00	41.01	41.01
DISCCART	610560.00	4200260.00	41.01	41.01
DISCCART	610560.00	4200280.00	41.01	41.01
DISCCART	610560.00	4200300.00	41.01	41.01
DISCCART	610560.00	4200320.00	41.01	41.01
DISCCART	610560.00	4200340.00	41.01	41.01
DISCCART	610560.00	4200360.00	41.00	41.00
DISCCART	610560.00	4200380.00	40.97	40.97
DISCCART	610560.00	4200400.00	40.91	40.91
DISCCART	610560.00	4200420.00	40.91	40.91
DISCCART	610560.00	4200440.00	40.89	40.89
DISCCART	610560.00	4200460.00	40.87	40.87
DISCCART	610560.00	4200480.00	40.84	40.84
DISCCART	610560.00	4200500.00	40.82	40.82

Modeled Receptors

DISCCART	610560.00	4200520.00	40.77	40.77
DISCCART	610560.00	4200540.00	40.77	40.77
DISCCART	610560.00	4200560.00	40.70	40.70
DISCCART	610560.00	4200580.00	40.67	40.67
DISCCART	610560.00	4200600.00	40.67	40.67
DISCCART	610560.00	4200620.00	40.56	40.56
DISCCART	610560.00	4200640.00	40.57	40.57
DISCCART	610560.00	4200660.00	40.57	40.57
DISCCART	610560.00	4200680.00	40.50	40.50
DISCCART	610560.00	4200700.00	40.46	40.46
DISCCART	610560.00	4200720.00	40.44	40.44
DISCCART	610560.00	4200740.00	39.39	40.56
DISCCART	610560.00	4200760.00	39.80	40.40
DISCCART	610560.00	4200780.00	40.44	40.44
DISCCART	610560.00	4200800.00	40.47	40.47
DISCCART	610560.00	4200820.00	40.50	40.50
DISCCART	610560.00	4200840.00	40.53	40.53
DISCCART	610560.00	4200860.00	40.55	40.55
DISCCART	610560.00	4200880.00	40.57	40.57
DISCCART	610560.00	4200900.00	40.57	40.57
DISCCART	610560.00	4200920.00	40.57	40.57
DISCCART	610580.00	4199620.00	60.66	68.69
DISCCART	610580.00	4199640.00	59.53	68.69
DISCCART	610580.00	4199660.00	57.99	68.69

Modeled Receptors

DISCCART	610580.00	4199680.00	56.57	68.69
DISCCART	610580.00	4199700.00	55.65	68.69
DISCCART	610580.00	4199720.00	54.83	68.69
DISCCART	610580.00	4199740.00	53.88	68.69
DISCCART	610580.00	4199760.00	52.74	68.69
DISCCART	610580.00	4199780.00	51.57	68.53
DISCCART	610580.00	4199800.00	50.43	68.32
DISCCART	610580.00	4199820.00	49.59	57.99
DISCCART	610580.00	4199840.00	48.78	56.33
DISCCART	610580.00	4199860.00	47.90	47.90
DISCCART	610580.00	4199880.00	46.90	46.90
DISCCART	610580.00	4199900.00	45.98	45.98
DISCCART	610580.00	4199920.00	45.24	45.24
DISCCART	610580.00	4199940.00	44.46	44.46
DISCCART	610580.00	4199960.00	43.96	43.96
DISCCART	610580.00	4199980.00	43.65	43.65
DISCCART	610580.00	4200000.00	42.91	42.91
DISCCART	610580.00	4200020.00	41.96	41.96
DISCCART	610580.00	4200040.00	41.18	41.18
DISCCART	610580.00	4200060.00	40.79	40.79
DISCCART	610580.00	4200080.00	40.77	40.77
DISCCART	610580.00	4200100.00	40.78	40.78
DISCCART	610580.00	4200120.00	40.69	40.69
DISCCART	610580.00	4200140.00	40.66	40.66

Modeled Receptors

DISCCART	610580.00	4200160.00	40.68	40.68
DISCCART	610580.00	4200180.00	40.71	40.71
DISCCART	610580.00	4200200.00	40.71	40.71
DISCCART	610580.00	4200220.00	40.71	40.71
DISCCART	610580.00	4200240.00	40.71	40.71
DISCCART	610580.00	4200260.00	40.71	40.71
DISCCART	610580.00	4200280.00	40.71	40.71
DISCCART	610580.00	4200300.00	40.69	40.69
DISCCART	610580.00	4200320.00	40.67	40.67
DISCCART	610580.00	4200340.00	40.64	40.64
DISCCART	610580.00	4200360.00	40.61	40.61
DISCCART	610580.00	4200380.00	40.61	40.61
DISCCART	610580.00	4200400.00	40.61	40.61
DISCCART	610580.00	4200420.00	40.61	40.61
DISCCART	610580.00	4200440.00	40.57	40.57
DISCCART	610580.00	4200460.00	40.57	40.57
DISCCART	610580.00	4200480.00	40.57	40.57
DISCCART	610580.00	4200500.00	40.51	40.51
DISCCART	610580.00	4200520.00	40.51	40.51
DISCCART	610580.00	4200540.00	40.47	40.47
DISCCART	610580.00	4200560.00	40.47	40.47
DISCCART	610580.00	4200580.00	40.47	40.47
DISCCART	610580.00	4200600.00	40.47	40.47
DISCCART	610580.00	4200620.00	40.47	40.47

Modeled Receptors

DISCCART	610580.00	4200640.00	40.43	40.43
DISCCART	610580.00	4200660.00	40.43	40.43
DISCCART	610580.00	4200680.00	40.41	40.41
DISCCART	610580.00	4200700.00	40.37	40.37
DISCCART	610580.00	4200720.00	40.38	40.38
DISCCART	610580.00	4200740.00	40.52	40.52
DISCCART	610580.00	4200760.00	38.74	40.85
DISCCART	610580.00	4200780.00	40.31	40.31
DISCCART	610580.00	4200800.00	40.37	40.37
DISCCART	610580.00	4200820.00	40.37	40.37
DISCCART	610580.00	4200840.00	40.43	40.43
DISCCART	610580.00	4200860.00	40.43	40.43
DISCCART	610580.00	4200880.00	40.43	40.43
DISCCART	610580.00	4200900.00	40.43	40.43
DISCCART	610600.00	4199620.00	62.75	68.69
DISCCART	610600.00	4199640.00	61.88	68.69
DISCCART	610600.00	4199660.00	61.10	68.69
DISCCART	610600.00	4199680.00	59.86	68.69
DISCCART	610600.00	4199700.00	58.38	68.69
DISCCART	610600.00	4199720.00	57.21	68.69
DISCCART	610600.00	4199740.00	56.30	68.53
DISCCART	610600.00	4199760.00	55.43	56.46
DISCCART	610600.00	4199780.00	54.15	57.06
DISCCART	610600.00	4199800.00	52.79	57.06

Modeled Receptors

DISCCART	610600.00	4199820.00	51.59	56.33
DISCCART	610600.00	4199840.00	50.44	55.07
DISCCART	610600.00	4199860.00	49.34	49.34
DISCCART	610600.00	4199880.00	48.26	48.26
DISCCART	610600.00	4199900.00	47.18	47.18
DISCCART	610600.00	4199920.00	46.08	46.08
DISCCART	610600.00	4199940.00	45.34	45.34
DISCCART	610600.00	4199960.00	44.72	44.72
DISCCART	610600.00	4199980.00	44.05	44.05
DISCCART	610600.00	4200000.00	43.31	43.31
DISCCART	610600.00	4200020.00	42.32	42.32
DISCCART	610600.00	4200040.00	41.02	41.02
DISCCART	610600.00	4200060.00	40.57	40.57
DISCCART	610600.00	4200080.00	40.52	40.52
DISCCART	610600.00	4200100.00	40.47	40.47
DISCCART	610600.00	4200120.00	40.50	40.50
DISCCART	610600.00	4200140.00	40.53	40.53
DISCCART	610600.00	4200160.00	40.53	40.53
DISCCART	610600.00	4200180.00	40.53	40.53
DISCCART	610600.00	4200200.00	40.53	40.53
DISCCART	610600.00	4200220.00	40.53	40.53
DISCCART	610600.00	4200240.00	40.53	40.53
DISCCART	610600.00	4200260.00	40.53	40.53
DISCCART	610600.00	4200280.00	40.53	40.53

Modeled Receptors

DISCCART	610600.00	4200300.00	40.53	40.53
DISCCART	610600.00	4200320.00	40.50	40.50
DISCCART	610600.00	4200340.00	40.47	40.47
DISCCART	610600.00	4200360.00	40.47	40.47
DISCCART	610600.00	4200380.00	40.45	40.45
DISCCART	610600.00	4200400.00	40.43	40.43
DISCCART	610600.00	4200420.00	40.43	40.43
DISCCART	610600.00	4200440.00	40.43	40.43
DISCCART	610600.00	4200460.00	40.43	40.43
DISCCART	610600.00	4200480.00	40.43	40.43
DISCCART	610600.00	4200500.00	40.43	40.43
DISCCART	610600.00	4200520.00	40.43	40.43
DISCCART	610600.00	4200540.00	40.43	40.43
DISCCART	610600.00	4200560.00	40.43	40.43
DISCCART	610600.00	4200580.00	40.43	40.43
DISCCART	610600.00	4200600.00	40.43	40.43
DISCCART	610600.00	4200620.00	40.43	40.43
DISCCART	610600.00	4200640.00	40.43	40.43
DISCCART	610600.00	4200660.00	40.44	40.44
DISCCART	610600.00	4200680.00	40.33	40.33
DISCCART	610600.00	4200700.00	40.33	40.33
DISCCART	610600.00	4200720.00	40.33	40.33
DISCCART	610600.00	4200740.00	40.39	40.39
DISCCART	610600.00	4200760.00	39.34	40.85

Modeled Receptors

DISCCART	610600.00	4200780.00	39.43	40.17
DISCCART	610600.00	4200800.00	40.42	40.42
DISCCART	610600.00	4200820.00	40.36	40.36
DISCCART	610600.00	4200840.00	40.38	40.38
DISCCART	610600.00	4200860.00	40.43	40.43
DISCCART	610600.00	4200880.00	40.43	40.43
DISCCART	610620.00	4199620.00	65.58	68.44
DISCCART	610620.00	4199640.00	64.84	68.69
DISCCART	610620.00	4199660.00	63.62	68.69
DISCCART	610620.00	4199680.00	62.25	68.53
DISCCART	610620.00	4199700.00	60.78	68.53
DISCCART	610620.00	4199720.00	59.29	68.53
DISCCART	610620.00	4199740.00	57.99	57.99
DISCCART	610620.00	4199760.00	57.05	57.05
DISCCART	610620.00	4199780.00	56.04	56.04
DISCCART	610620.00	4199800.00	54.68	55.26
DISCCART	610620.00	4199820.00	53.23	55.07
DISCCART	610620.00	4199840.00	51.67	51.67
DISCCART	610620.00	4199860.00	50.41	50.41
DISCCART	610620.00	4199880.00	49.22	49.22
DISCCART	610620.00	4199900.00	47.84	47.84
DISCCART	610620.00	4199920.00	46.20	46.20
DISCCART	610620.00	4199940.00	45.17	45.17
DISCCART	610620.00	4199960.00	44.51	44.51

Modeled Receptors

DISCCART	610620.00	4199980.00	43.91	43.91
DISCCART	610620.00	4200000.00	43.07	43.07
DISCCART	610620.00	4200020.00	42.06	42.06
DISCCART	610620.00	4200040.00	40.76	40.76
DISCCART	610620.00	4200060.00	40.36	40.36
DISCCART	610620.00	4200080.00	40.27	40.27
DISCCART	610620.00	4200100.00	40.27	40.27
DISCCART	610620.00	4200120.00	40.38	40.38
DISCCART	610620.00	4200140.00	40.37	40.37
DISCCART	610620.00	4200160.00	40.43	40.43
DISCCART	610620.00	4200180.00	40.43	40.43
DISCCART	610620.00	4200200.00	40.43	40.43
DISCCART	610620.00	4200220.00	40.43	40.43
DISCCART	610620.00	4200240.00	40.43	40.43
DISCCART	610620.00	4200260.00	40.43	40.43
DISCCART	610620.00	4200280.00	40.43	40.43
DISCCART	610620.00	4200300.00	40.43	40.43
DISCCART	610620.00	4200320.00	40.43	40.43
DISCCART	610620.00	4200340.00	40.43	40.43
DISCCART	610620.00	4200360.00	40.43	40.43
DISCCART	610620.00	4200380.00	40.43	40.43
DISCCART	610620.00	4200400.00	40.43	40.43
DISCCART	610620.00	4200420.00	40.43	40.43
DISCCART	610620.00	4200440.00	40.43	40.43

Modeled Receptors

DISCCART	610620.00	4200460.00	40.43	40.43
DISCCART	610620.00	4200480.00	40.43	40.43
DISCCART	610620.00	4200500.00	40.43	40.43
DISCCART	610620.00	4200520.00	40.43	40.43
DISCCART	610620.00	4200540.00	40.43	40.43
DISCCART	610620.00	4200560.00	40.43	40.43
DISCCART	610620.00	4200580.00	40.43	40.43
DISCCART	610620.00	4200600.00	40.43	40.43
DISCCART	610620.00	4200620.00	40.43	40.43
DISCCART	610620.00	4200640.00	40.44	40.44
DISCCART	610620.00	4200660.00	40.35	40.35
DISCCART	610620.00	4200680.00	40.33	40.33
DISCCART	610620.00	4200700.00	40.33	40.33
DISCCART	610620.00	4200720.00	40.41	40.41
DISCCART	610620.00	4200740.00	40.43	40.43
DISCCART	610620.00	4200760.00	40.62	40.62
DISCCART	610620.00	4200780.00	38.51	40.74
DISCCART	610620.00	4200800.00	40.51	40.51
DISCCART	610620.00	4200820.00	40.43	40.43
DISCCART	610620.00	4200840.00	40.43	40.43
DISCCART	610640.00	4199620.00	68.10	68.10
DISCCART	610640.00	4199640.00	67.57	67.57
DISCCART	610640.00	4199660.00	65.54	68.53
DISCCART	610640.00	4199680.00	63.59	68.53

Modeled Receptors

DISCCART	610640.00	4199700.00	62.05	67.83
DISCCART	610640.00	4199720.00	60.52	60.52
DISCCART	610640.00	4199740.00	59.21	59.21
DISCCART	610640.00	4199760.00	58.05	58.05
DISCCART	610640.00	4199780.00	56.97	56.97
DISCCART	610640.00	4199800.00	55.93	55.93
DISCCART	610640.00	4199820.00	54.09	55.46
DISCCART	610640.00	4199840.00	51.84	56.22
DISCCART	610640.00	4199860.00	50.46	50.46
DISCCART	610640.00	4199880.00	49.19	49.19
DISCCART	610640.00	4199900.00	47.54	47.54
DISCCART	610640.00	4199920.00	45.63	47.85
DISCCART	610640.00	4199940.00	44.72	44.72
DISCCART	610640.00	4199960.00	44.07	44.07
DISCCART	610640.00	4199980.00	43.44	43.44
DISCCART	610640.00	4200000.00	42.68	42.68
DISCCART	610640.00	4200020.00	41.77	41.77
DISCCART	610640.00	4200040.00	40.62	40.62
DISCCART	610640.00	4200060.00	40.23	40.23
DISCCART	610640.00	4200080.00	40.10	40.10
DISCCART	610640.00	4200100.00	40.12	40.12
DISCCART	610640.00	4200120.00	40.17	40.17
DISCCART	610640.00	4200140.00	40.21	40.21
DISCCART	610640.00	4200160.00	40.27	40.27

Modeled Receptors

DISCCART	610640.00	4200180.00	40.29	40.29
DISCCART	610640.00	4200200.00	40.33	40.33
DISCCART	610640.00	4200220.00	40.38	40.38
DISCCART	610640.00	4200240.00	40.38	40.38
DISCCART	610640.00	4200260.00	40.37	40.37
DISCCART	610640.00	4200280.00	40.37	40.37
DISCCART	610640.00	4200300.00	40.43	40.43
DISCCART	610640.00	4200320.00	40.43	40.43
DISCCART	610640.00	4200340.00	40.43	40.43
DISCCART	610640.00	4200360.00	40.43	40.43
DISCCART	610640.00	4200380.00	40.44	40.44
DISCCART	610640.00	4200400.00	40.44	40.44
DISCCART	610640.00	4200420.00	40.43	40.43
DISCCART	610640.00	4200440.00	40.43	40.43
DISCCART	610640.00	4200460.00	40.43	40.43
DISCCART	610640.00	4200480.00	40.43	40.43
DISCCART	610640.00	4200500.00	40.43	40.43
DISCCART	610640.00	4200520.00	40.43	40.43
DISCCART	610640.00	4200540.00	40.43	40.43
DISCCART	610640.00	4200560.00	40.43	40.43
DISCCART	610640.00	4200580.00	40.43	40.43
DISCCART	610640.00	4200600.00	40.41	40.41
DISCCART	610640.00	4200620.00	40.38	40.38
DISCCART	610640.00	4200640.00	40.32	40.32

Modeled Receptors

DISCCART	610640.00	4200660.00	40.33	40.33
DISCCART	610640.00	4200680.00	40.33	40.33
DISCCART	610640.00	4200700.00	40.33	40.33
DISCCART	610640.00	4200720.00	40.40	40.40
DISCCART	610640.00	4200740.00	40.44	40.44
DISCCART	610640.00	4200760.00	40.62	40.62
DISCCART	610640.00	4200780.00	38.46	40.74
DISCCART	610640.00	4200800.00	40.60	40.60
DISCCART	610660.00	4199620.00	68.26	68.26
DISCCART	610660.00	4199640.00	67.51	67.51
DISCCART	610660.00	4199660.00	65.65	68.53
DISCCART	610660.00	4199680.00	63.74	68.53
DISCCART	610660.00	4199700.00	62.38	62.38
DISCCART	610660.00	4199720.00	60.82	60.82
DISCCART	610660.00	4199740.00	59.35	59.35
DISCCART	610660.00	4199760.00	57.88	57.88
DISCCART	610660.00	4199780.00	56.85	56.85
DISCCART	610660.00	4199800.00	55.55	55.94
DISCCART	610660.00	4199820.00	53.22	56.84
DISCCART	610660.00	4199840.00	50.80	57.38
DISCCART	610660.00	4199860.00	49.37	56.84
DISCCART	610660.00	4199880.00	47.83	56.22
DISCCART	610660.00	4199900.00	46.24	55.52
DISCCART	610660.00	4199920.00	44.72	48.40

Modeled Receptors

DISCCART	610660.00	4199940.00	44.06	44.06
DISCCART	610660.00	4199960.00	43.47	43.47
DISCCART	610660.00	4199980.00	42.85	42.85
DISCCART	610660.00	4200000.00	42.24	42.24
DISCCART	610660.00	4200020.00	41.43	41.43
DISCCART	610660.00	4200040.00	40.52	40.52
DISCCART	610660.00	4200060.00	40.19	40.19
DISCCART	610660.00	4200080.00	40.01	40.01
DISCCART	610660.00	4200100.00	39.97	39.97
DISCCART	610660.00	4200120.00	39.97	39.97
DISCCART	610660.00	4200140.00	40.01	40.01
DISCCART	610660.00	4200160.00	40.07	40.07
DISCCART	610660.00	4200180.00	40.11	40.11
DISCCART	610660.00	4200200.00	40.17	40.17
DISCCART	610660.00	4200220.00	40.17	40.17
DISCCART	610660.00	4200240.00	40.21	40.21
DISCCART	610660.00	4200260.00	40.28	40.28
DISCCART	610660.00	4200280.00	40.28	40.28
DISCCART	610660.00	4200300.00	40.30	40.30
DISCCART	610660.00	4200320.00	40.33	40.33
DISCCART	610660.00	4200340.00	40.33	40.33
DISCCART	610660.00	4200360.00	40.33	40.33
DISCCART	610660.00	4200380.00	40.33	40.33
DISCCART	610660.00	4200400.00	40.33	40.33

Modeled Receptors

DISCCART	610660.00	4200420.00	40.38	40.38
DISCCART	610660.00	4200440.00	40.38	40.38
DISCCART	610660.00	4200460.00	40.38	40.38
DISCCART	610660.00	4200480.00	40.37	40.37
DISCCART	610660.00	4200500.00	40.37	40.37
DISCCART	610660.00	4200520.00	40.37	40.37
DISCCART	610660.00	4200540.00	40.36	40.36
DISCCART	610660.00	4200560.00	40.33	40.33
DISCCART	610660.00	4200580.00	40.33	40.33
DISCCART	610660.00	4200600.00	40.33	40.33
DISCCART	610660.00	4200620.00	40.33	40.33
DISCCART	610660.00	4200640.00	40.33	40.33
DISCCART	610660.00	4200660.00	40.33	40.33
DISCCART	610660.00	4200680.00	40.33	40.33
DISCCART	610660.00	4200700.00	40.33	40.33
DISCCART	610660.00	4200720.00	40.35	40.35
DISCCART	610660.00	4200740.00	40.37	40.37
DISCCART	610680.00	4199640.00	64.47	68.69
DISCCART	610680.00	4199660.00	63.32	68.69
DISCCART	610680.00	4199680.00	62.36	68.53
DISCCART	610680.00	4199700.00	61.33	67.83
DISCCART	610680.00	4199720.00	59.72	61.86
DISCCART	610680.00	4199740.00	58.21	59.73
DISCCART	610680.00	4199760.00	56.98	56.98

Modeled Receptors

DISCCART	610680.00	4199780.00	55.64	55.64
DISCCART	610680.00	4199800.00	53.63	57.26
DISCCART	610680.00	4199820.00	51.33	58.13
DISCCART	610680.00	4199840.00	49.16	58.92
DISCCART	610680.00	4199860.00	47.21	58.92
DISCCART	610680.00	4199880.00	45.28	58.92
DISCCART	610680.00	4199900.00	44.34	57.38
DISCCART	610680.00	4199920.00	43.61	55.52
DISCCART	610680.00	4199940.00	42.96	42.96
DISCCART	610680.00	4199960.00	42.55	42.55
DISCCART	610680.00	4199980.00	42.12	42.12
DISCCART	610680.00	4200000.00	41.63	41.63
DISCCART	610680.00	4200020.00	40.99	40.99
DISCCART	610680.00	4200040.00	40.38	40.38
DISCCART	610680.00	4200060.00	40.09	40.09
DISCCART	610680.00	4200080.00	39.91	39.91
DISCCART	610680.00	4200100.00	39.80	39.80
DISCCART	610680.00	4200120.00	39.78	39.78
DISCCART	610680.00	4200140.00	39.88	39.88
DISCCART	610680.00	4200160.00	39.87	39.87
DISCCART	610680.00	4200180.00	39.95	39.95
DISCCART	610680.00	4200200.00	39.97	39.97
DISCCART	610680.00	4200220.00	39.97	39.97
DISCCART	610680.00	4200240.00	40.08	40.08

Modeled Receptors

DISCCART	610680.00	4200260.00	40.07	40.07
DISCCART	610680.00	4200280.00	40.07	40.07
DISCCART	610680.00	4200300.00	40.17	40.17
DISCCART	610680.00	4200320.00	40.17	40.17
DISCCART	610680.00	4200340.00	40.17	40.17
DISCCART	610680.00	4200360.00	40.25	40.25
DISCCART	610680.00	4200380.00	40.27	40.27
DISCCART	610680.00	4200400.00	40.28	40.28
DISCCART	610680.00	4200420.00	40.27	40.27
DISCCART	610680.00	4200440.00	40.27	40.27
DISCCART	610680.00	4200460.00	40.34	40.34
DISCCART	610680.00	4200540.00	40.33	40.33
DISCCART	610680.00	4200560.00	40.33	40.33
DISCCART	610680.00	4200580.00	40.33	40.33
DISCCART	610680.00	4200600.00	40.33	40.33
DISCCART	610680.00	4200620.00	40.33	40.33
DISCCART	610680.00	4200640.00	40.33	40.33
DISCCART	610700.00	4199640.00	61.47	68.69
DISCCART	610700.00	4199660.00	60.77	68.69
DISCCART	610700.00	4199680.00	59.94	68.69
DISCCART	610700.00	4199700.00	58.90	68.69
DISCCART	610700.00	4199720.00	57.62	68.69
DISCCART	610700.00	4199740.00	56.49	68.53
DISCCART	610700.00	4199760.00	55.14	67.83

Modeled Receptors

DISCCART	610700.00	4199780.00	53.22	67.83
DISCCART	610700.00	4199800.00	51.05	68.53
DISCCART	610700.00	4199820.00	49.08	68.53
DISCCART	610700.00	4199840.00	46.99	68.53
DISCCART	610700.00	4199860.00	44.92	68.53
DISCCART	610700.00	4199880.00	42.97	68.53
DISCCART	610700.00	4199900.00	42.44	60.43
DISCCART	610700.00	4199920.00	42.21	57.38
DISCCART	610700.00	4199940.00	41.85	41.85
DISCCART	610700.00	4199960.00	41.48	41.48
DISCCART	610700.00	4199980.00	41.20	41.20
DISCCART	610700.00	4200000.00	40.92	40.92
DISCCART	610700.00	4200020.00	40.54	40.54
DISCCART	610700.00	4200040.00	40.18	40.18
DISCCART	610700.00	4200060.00	39.86	39.86
DISCCART	610700.00	4200080.00	39.70	39.70
DISCCART	610700.00	4200100.00	39.67	39.67
DISCCART	610700.00	4200120.00	39.67	39.67
DISCCART	610700.00	4200140.00	39.67	39.67
DISCCART	610700.00	4200160.00	39.69	39.69
DISCCART	610700.00	4200180.00	39.78	39.78
DISCCART	610700.00	4200200.00	39.77	39.77
DISCCART	610700.00	4200220.00	39.86	39.86
DISCCART	610700.00	4200240.00	39.87	39.87

Modeled Receptors

DISCCART	610700.00	4200260.00	39.87	39.87
DISCCART	610700.00	4200280.00	39.92	39.92
DISCCART	610700.00	4200300.00	39.97	39.97
DISCCART	610700.00	4200320.00	39.97	39.97
DISCCART	610700.00	4200340.00	40.00	40.00
DISCCART	610700.00	4200360.00	40.07	40.07
DISCCART	610700.00	4200380.00	40.07	40.07
DISCCART	610700.00	4200400.00	40.07	40.07
DISCCART	610700.00	4200420.00	40.07	40.07
DISCCART	610700.00	4200440.00	40.15	40.15
DISCCART	610720.00	4199660.00	58.17	68.69
DISCCART	610720.00	4199680.00	57.38	68.69
DISCCART	610720.00	4199700.00	56.40	68.69
DISCCART	610720.00	4199720.00	55.08	68.69
DISCCART	610720.00	4199740.00	53.64	68.69
DISCCART	610720.00	4199760.00	52.07	68.69
DISCCART	610720.00	4199780.00	50.26	68.69
DISCCART	610720.00	4199800.00	48.25	68.69
DISCCART	610720.00	4199820.00	46.50	68.69
DISCCART	610720.00	4199840.00	44.72	68.69
DISCCART	610720.00	4199860.00	42.66	68.69
DISCCART	610720.00	4199880.00	40.93	68.69
DISCCART	610720.00	4199900.00	40.79	68.53
DISCCART	610720.00	4199920.00	40.63	58.13

Modeled Receptors

DISCCART	610720.00	4199940.00	40.48	55.52
DISCCART	610720.00	4199960.00	40.37	40.37
DISCCART	610720.00	4199980.00	40.25	40.25
DISCCART	610720.00	4200000.00	40.11	40.11
DISCCART	610720.00	4200020.00	39.80	39.80
DISCCART	610720.00	4200040.00	39.57	39.57
DISCCART	610720.00	4200060.00	39.43	39.43
DISCCART	610720.00	4200080.00	39.40	39.40
DISCCART	610720.00	4200100.00	39.42	39.42
DISCCART	610720.00	4200120.00	39.47	39.47
DISCCART	610720.00	4200140.00	39.49	39.49
DISCCART	610720.00	4200160.00	39.58	39.58
DISCCART	610720.00	4200180.00	39.57	39.57
DISCCART	610720.00	4200200.00	39.65	39.65
DISCCART	610720.00	4200220.00	39.67	39.67
DISCCART	610720.00	4200240.00	39.67	39.67
DISCCART	610720.00	4200260.00	39.70	39.70
DISCCART	610720.00	4200280.00	39.77	39.77
DISCCART	610720.00	4200300.00	39.77	39.77
DISCCART	610720.00	4200320.00	39.77	39.77
DISCCART	610720.00	4200340.00	39.85	39.85
DISCCART	610720.00	4200360.00	39.87	39.87
DISCCART	610720.00	4200380.00	39.87	39.87
DISCCART	610720.00	4200400.00	39.87	39.87

Modeled Receptors

DISCCART	610720.00	4200420.00	39.95	39.95
DISCCART	610740.00	4199660.00	55.57	68.69
DISCCART	610740.00	4199680.00	54.47	68.69
DISCCART	610740.00	4199700.00	53.16	68.69
DISCCART	610740.00	4199720.00	51.64	68.69
DISCCART	610740.00	4199740.00	50.16	68.69
DISCCART	610740.00	4199760.00	48.77	68.69
DISCCART	610740.00	4199780.00	47.18	68.69
DISCCART	610740.00	4199800.00	45.35	68.69
DISCCART	610740.00	4199820.00	43.54	68.69
DISCCART	610740.00	4199840.00	41.48	68.69
DISCCART	610740.00	4199860.00	40.26	68.69
DISCCART	610740.00	4199880.00	39.63	68.69
DISCCART	610740.00	4199900.00	39.27	68.69
DISCCART	610740.00	4199920.00	39.18	61.86
DISCCART	610740.00	4199940.00	39.09	56.59
DISCCART	610740.00	4199960.00	38.95	38.95
DISCCART	610740.00	4199980.00	38.88	38.88
DISCCART	610740.00	4200000.00	38.88	38.88
DISCCART	610740.00	4200020.00	38.94	38.94
DISCCART	610740.00	4200040.00	38.90	38.90
DISCCART	610740.00	4200060.00	38.99	38.99
DISCCART	610740.00	4200080.00	39.07	39.07
DISCCART	610740.00	4200100.00	39.18	39.18

Modeled Receptors

DISCCART	610740.00	4200120.00	39.28	39.28
DISCCART	610740.00	4200140.00	39.35	39.35
DISCCART	610740.00	4200160.00	39.37	39.37
DISCCART	610740.00	4200180.00	39.45	39.45
DISCCART	610740.00	4200200.00	39.47	39.47
DISCCART	610740.00	4200220.00	39.47	39.47
DISCCART	610740.00	4200240.00	39.47	39.47
DISCCART	610740.00	4200260.00	39.55	39.55
DISCCART	610740.00	4200280.00	39.57	39.57
DISCCART	610740.00	4200300.00	39.57	39.57
DISCCART	610740.00	4200320.00	39.56	39.56
DISCCART	610740.00	4200340.00	39.66	39.66
DISCCART	610740.00	4200360.00	39.67	39.67
DISCCART	610740.00	4200380.00	39.67	39.67
DISCCART	610740.00	4200400.00	39.75	39.75
DISCCART	610760.00	4199680.00	50.57	68.69
DISCCART	610760.00	4199700.00	49.48	68.69
DISCCART	610760.00	4199720.00	48.23	68.69
DISCCART	610760.00	4199740.00	46.94	68.69
DISCCART	610760.00	4199760.00	45.50	68.69
DISCCART	610760.00	4199780.00	43.82	68.69
DISCCART	610760.00	4199800.00	41.80	68.69
DISCCART	610760.00	4199820.00	40.30	68.69
DISCCART	610760.00	4199840.00	39.82	68.69

Modeled Receptors

DISCCART	610760.00	4199860.00	39.46	68.69
DISCCART	610760.00	4199880.00	38.72	68.69
DISCCART	610760.00	4199900.00	38.45	68.69
DISCCART	610760.00	4199920.00	38.45	61.86
DISCCART	610760.00	4199940.00	38.51	38.51
DISCCART	610760.00	4199960.00	38.51	38.51
DISCCART	610760.00	4199980.00	38.57	38.57
DISCCART	610760.00	4200000.00	38.57	38.57
DISCCART	610760.00	4200020.00	38.67	38.67
DISCCART	610760.00	4200040.00	38.70	38.70
DISCCART	610760.00	4200060.00	38.77	38.77
DISCCART	610760.00	4200080.00	38.88	38.88
DISCCART	610760.00	4200100.00	39.00	39.00
DISCCART	610760.00	4200120.00	39.10	39.10
DISCCART	610760.00	4200140.00	39.18	39.18
DISCCART	610760.00	4200160.00	39.25	39.25
DISCCART	610760.00	4200180.00	39.27	39.27
DISCCART	610760.00	4200200.00	39.27	39.27
DISCCART	610760.00	4200220.00	39.27	39.27
DISCCART	610760.00	4200240.00	39.32	39.32
DISCCART	610760.00	4200260.00	39.37	39.37
DISCCART	610760.00	4200280.00	39.37	39.37
DISCCART	610760.00	4200300.00	39.37	39.37
DISCCART	610760.00	4200320.00	39.42	39.42

Modeled Receptors

DISCCART	610760.00	4200340.00	39.47	39.47
DISCCART	610760.00	4200360.00	39.47	39.47
DISCCART	610760.00	4200380.00	39.50	39.50
DISCCART	610780.00	4199700.00	46.26	68.69
DISCCART	610780.00	4199720.00	45.02	68.69
DISCCART	610780.00	4199740.00	43.71	68.69
DISCCART	610780.00	4199760.00	41.89	68.69
DISCCART	610780.00	4199780.00	40.48	68.69
DISCCART	610780.00	4199800.00	39.81	68.69
DISCCART	610780.00	4199820.00	39.31	68.69
DISCCART	610780.00	4199840.00	38.76	68.69
DISCCART	610780.00	4199860.00	38.33	68.69
DISCCART	610780.00	4199880.00	37.97	68.69
DISCCART	610780.00	4199900.00	37.77	68.69
DISCCART	610780.00	4199920.00	37.81	59.44
DISCCART	610780.00	4199940.00	37.99	37.99
DISCCART	610780.00	4199960.00	38.15	38.15
DISCCART	610780.00	4199980.00	38.34	38.34
DISCCART	610780.00	4200000.00	38.45	38.45
DISCCART	610780.00	4200020.00	38.53	38.53
DISCCART	610780.00	4200040.00	38.60	38.60
DISCCART	610780.00	4200060.00	38.67	38.67
DISCCART	610780.00	4200080.00	38.75	38.75
DISCCART	610780.00	4200100.00	38.85	38.85

Modeled Receptors

DISCCART	610780.00	4200120.00	38.91	38.91
DISCCART	610780.00	4200140.00	39.01	39.01
DISCCART	610780.00	4200160.00	39.07	39.07
DISCCART	610780.00	4200180.00	39.07	39.07
DISCCART	610780.00	4200200.00	39.14	39.14
DISCCART	610780.00	4200220.00	39.15	39.15
DISCCART	610780.00	4200240.00	39.17	39.17
DISCCART	610780.00	4200260.00	39.17	39.17
DISCCART	610780.00	4200280.00	39.17	39.17
DISCCART	610780.00	4200300.00	39.17	39.17
DISCCART	610780.00	4200320.00	39.25	39.25
DISCCART	610780.00	4200340.00	39.27	39.27
DISCCART	610780.00	4200360.00	39.27	39.27
DISCCART	610800.00	4199720.00	41.72	68.69
DISCCART	610800.00	4199740.00	40.39	68.69
DISCCART	610800.00	4199760.00	39.65	68.69
DISCCART	610800.00	4199780.00	39.09	68.69
DISCCART	610800.00	4199800.00	38.60	68.69
DISCCART	610800.00	4199820.00	38.06	68.69
DISCCART	610800.00	4199840.00	37.65	68.69
DISCCART	610800.00	4199860.00	37.37	68.69
DISCCART	610800.00	4199880.00	37.26	68.69
DISCCART	610800.00	4199900.00	37.27	68.53
DISCCART	610800.00	4199920.00	37.31	55.62

Modeled Receptors

DISCCART	610800.00	4199940.00	37.54	37.54
DISCCART	610800.00	4199960.00	37.75	37.75
DISCCART	610800.00	4199980.00	37.95	37.95
DISCCART	610800.00	4200000.00	38.15	38.15
DISCCART	610800.00	4200020.00	38.34	38.34
DISCCART	610800.00	4200040.00	38.45	38.45
DISCCART	610800.00	4200060.00	38.53	38.53
DISCCART	610800.00	4200080.00	38.59	38.59
DISCCART	610800.00	4200100.00	38.69	38.69
DISCCART	610800.00	4200120.00	38.78	38.78
DISCCART	610800.00	4200140.00	38.88	38.88
DISCCART	610800.00	4200160.00	38.89	38.89
DISCCART	610800.00	4200180.00	38.98	38.98
DISCCART	610800.00	4200200.00	38.97	38.97
DISCCART	610800.00	4200220.00	38.97	38.97
DISCCART	610800.00	4200240.00	38.97	38.97
DISCCART	610800.00	4200260.00	38.97	38.97
DISCCART	610800.00	4200280.00	38.97	38.97
DISCCART	610800.00	4200300.00	39.00	39.00
DISCCART	610800.00	4200320.00	39.07	39.07
DISCCART	610820.00	4199740.00	38.78	68.69
DISCCART	610820.00	4199760.00	38.17	68.69
DISCCART	610820.00	4199780.00	37.68	68.69
DISCCART	610820.00	4199800.00	37.34	68.69

Modeled Receptors

DISCCART	610820.00	4199820.00	37.22	68.69
DISCCART	610820.00	4199840.00	37.16	68.69
DISCCART	610820.00	4199860.00	37.18	68.69
DISCCART	610820.00	4199880.00	37.18	68.69
DISCCART	610820.00	4199900.00	37.17	57.04
DISCCART	610820.00	4199920.00	37.25	37.25
DISCCART	610820.00	4199940.00	37.34	37.34
DISCCART	610820.00	4199960.00	37.48	37.48
DISCCART	610820.00	4199980.00	37.68	37.68
DISCCART	610820.00	4200000.00	37.94	37.94
DISCCART	610820.00	4200020.00	38.22	38.22
DISCCART	610820.00	4200040.00	38.32	38.32
DISCCART	610820.00	4200060.00	38.45	38.45
DISCCART	610820.00	4200080.00	38.55	38.55
DISCCART	610820.00	4200100.00	38.64	38.64
DISCCART	610820.00	4200120.00	38.68	38.68
DISCCART	610820.00	4200140.00	38.73	38.73
DISCCART	610820.00	4200160.00	38.77	38.77
DISCCART	610820.00	4200180.00	38.77	38.77
DISCCART	610820.00	4200200.00	38.77	38.77
DISCCART	610820.00	4200220.00	38.77	38.77
DISCCART	610820.00	4200240.00	38.77	38.77
DISCCART	610820.00	4200260.00	38.77	38.77
DISCCART	610820.00	4200280.00	38.80	38.80

Modeled Receptors

DISCCART	610840.00	4199780.00	37.16	68.69
DISCCART	610840.00	4199800.00	37.16	68.69
DISCCART	610840.00	4199820.00	37.08	68.69
DISCCART	610840.00	4199840.00	37.05	68.69
DISCCART	610840.00	4199860.00	37.03	68.69
DISCCART	610840.00	4199880.00	37.05	68.53
DISCCART	610840.00	4199900.00	37.10	37.10
DISCCART	610840.00	4199920.00	37.17	37.17
DISCCART	610840.00	4199940.00	37.23	37.23
DISCCART	610840.00	4199960.00	37.29	37.29
DISCCART	610840.00	4199980.00	37.49	37.49
DISCCART	610840.00	4200000.00	37.74	37.74
DISCCART	610840.00	4200020.00	38.04	38.04
DISCCART	610840.00	4200040.00	38.26	38.26
DISCCART	610840.00	4200060.00	38.35	38.35
DISCCART	610840.00	4200080.00	38.45	38.45
DISCCART	610840.00	4200100.00	38.49	38.49
DISCCART	610840.00	4200120.00	38.58	38.58
DISCCART	610840.00	4200140.00	38.57	38.57
DISCCART	610840.00	4200160.00	38.64	38.64
DISCCART	610840.00	4200180.00	38.63	38.63
DISCCART	610840.00	4200200.00	38.63	38.63
DISCCART	610840.00	4200220.00	38.63	38.63
DISCCART	610840.00	4200240.00	38.65	38.65

Modeled Receptors

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DISCCART    610860.00  4199820.00     36.97     68.69
DISCCART    610860.00  4199840.00     36.93     68.69
DISCCART    610860.00  4199860.00     36.93     68.69
DISCCART    610860.00  4199880.00     37.00     37.00
DISCCART    610860.00  4199900.00     37.05     37.05
DISCCART    610860.00  4199920.00     37.15     37.15
DISCCART    610860.00  4199940.00     37.23     37.23
DISCCART    610860.00  4199960.00     37.31     37.31
DISCCART    610860.00  4199980.00     37.44     37.44
DISCCART    610860.00  4200000.00     37.67     37.67
DISCCART    610860.00  4200020.00     37.98     37.98
DISCCART    610860.00  4200040.00     38.11     38.11
DISCCART    610860.00  4200060.00     38.25     38.25
DISCCART    610860.00  4200080.00     38.35     38.35
DISCCART    610860.00  4200100.00     38.40     38.40
DISCCART    610860.00  4200120.00     38.43     38.43
DISCCART    610860.00  4200140.00     38.48     38.48
DISCCART    610860.00  4200160.00     38.47     38.47
DISCCART    610860.00  4200180.00     38.47     38.47
DISCCART    610860.00  4200200.00     38.47     38.47
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Modeled Onsite Sources

```
SO LOCATION  ON_0001  VOLUME  609760.00  4200600.00  46.42
SO LOCATION  ON_0002  VOLUME  609760.00  4200620.00  46.30
SO LOCATION  ON_0003  VOLUME  609760.00  4200640.00  46.24
SO LOCATION  ON_0004  VOLUME  609760.00  4200660.00  46.26
SO LOCATION  ON_0005  VOLUME  609780.00  4199860.00  74.07
SO LOCATION  ON_0006  VOLUME  609780.00  4199880.00  71.43
SO LOCATION  ON_0007  VOLUME  609780.00  4199900.00  68.79
SO LOCATION  ON_0008  VOLUME  609780.00  4199920.00  66.03
SO LOCATION  ON_0009  VOLUME  609780.00  4199940.00  62.92
SO LOCATION  ON_0010  VOLUME  609780.00  4199960.00  60.91
SO LOCATION  ON_0011  VOLUME  609780.00  4199980.00  60.57
SO LOCATION  ON_0012  VOLUME  609780.00  4200000.00  60.65
SO LOCATION  ON_0013  VOLUME  609780.00  4200020.00  61.89
SO LOCATION  ON_0014  VOLUME  609780.00  4200040.00  63.82
SO LOCATION  ON_0015  VOLUME  609780.00  4200060.00  65.60
SO LOCATION  ON_0016  VOLUME  609780.00  4200080.00  67.10
SO LOCATION  ON_0017  VOLUME  609780.00  4200100.00  67.77
SO LOCATION  ON_0018  VOLUME  609780.00  4200120.00  67.64
SO LOCATION  ON_0019  VOLUME  609780.00  4200140.00  67.28
SO LOCATION  ON_0020  VOLUME  609780.00  4200160.00  66.42
SO LOCATION  ON_0021  VOLUME  609780.00  4200180.00  65.11
SO LOCATION  ON_0022  VOLUME  609780.00  4200200.00  63.36
SO LOCATION  ON_0023  VOLUME  609780.00  4200220.00  61.34
SO LOCATION  ON_0024  VOLUME  609780.00  4200240.00  59.28
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Modeled Onsite Sources

```
SO LOCATION  ON_0025  VOLUME  609780.00  4200260.00  56.82
SO LOCATION  ON_0026  VOLUME  609780.00  4200280.00  53.93
SO LOCATION  ON_0027  VOLUME  609780.00  4200300.00  51.66
SO LOCATION  ON_0028  VOLUME  609780.00  4200320.00  49.87
SO LOCATION  ON_0029  VOLUME  609780.00  4200340.00  49.13
SO LOCATION  ON_0030  VOLUME  609780.00  4200360.00  49.27
SO LOCATION  ON_0031  VOLUME  609780.00  4200380.00  49.43
SO LOCATION  ON_0032  VOLUME  609780.00  4200400.00  49.53
SO LOCATION  ON_0033  VOLUME  609780.00  4200420.00  49.16
SO LOCATION  ON_0034  VOLUME  609780.00  4200440.00  48.72
SO LOCATION  ON_0035  VOLUME  609780.00  4200460.00  47.77
SO LOCATION  ON_0036  VOLUME  609780.00  4200480.00  46.53
SO LOCATION  ON_0037  VOLUME  609780.00  4200500.00  45.85
SO LOCATION  ON_0038  VOLUME  609780.00  4200520.00  45.22
SO LOCATION  ON_0039  VOLUME  609780.00  4200540.00  45.07
SO LOCATION  ON_0040  VOLUME  609780.00  4200560.00  45.41
SO LOCATION  ON_0041  VOLUME  609780.00  4200580.00  46.35
SO LOCATION  ON_0042  VOLUME  609780.00  4200600.00  46.56
SO LOCATION  ON_0043  VOLUME  609780.00  4200620.00  46.28
SO LOCATION  ON_0044  VOLUME  609780.00  4200640.00  46.16
SO LOCATION  ON_0045  VOLUME  609780.00  4200660.00  46.23
SO LOCATION  ON_0046  VOLUME  609800.00  4199860.00  72.58
SO LOCATION  ON_0047  VOLUME  609800.00  4199880.00  70.31
SO LOCATION  ON_0048  VOLUME  609800.00  4199900.00  68.19
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Modeled Onsite Sources

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SO LOCATION  ON_0049  VOLUME  609800.00  4199920.00  65.54
SO LOCATION  ON_0050  VOLUME  609800.00  4199940.00  62.65
SO LOCATION  ON_0051  VOLUME  609800.00  4199960.00  60.36
SO LOCATION  ON_0052  VOLUME  609800.00  4199980.00  58.32
SO LOCATION  ON_0053  VOLUME  609800.00  4200000.00  57.59
SO LOCATION  ON_0054  VOLUME  609800.00  4200020.00  58.55
SO LOCATION  ON_0055  VOLUME  609800.00  4200040.00  60.38
SO LOCATION  ON_0056  VOLUME  609800.00  4200060.00  62.10
SO LOCATION  ON_0057  VOLUME  609800.00  4200080.00  63.42
SO LOCATION  ON_0058  VOLUME  609800.00  4200100.00  63.97
SO LOCATION  ON_0059  VOLUME  609800.00  4200120.00  64.14
SO LOCATION  ON_0060  VOLUME  609800.00  4200140.00  63.90
SO LOCATION  ON_0061  VOLUME  609800.00  4200160.00  63.27
SO LOCATION  ON_0062  VOLUME  609800.00  4200180.00  62.05
SO LOCATION  ON_0063  VOLUME  609800.00  4200200.00  60.13
SO LOCATION  ON_0064  VOLUME  609800.00  4200220.00  58.13
SO LOCATION  ON_0065  VOLUME  609800.00  4200240.00  56.20
SO LOCATION  ON_0066  VOLUME  609800.00  4200260.00  54.14
SO LOCATION  ON_0067  VOLUME  609800.00  4200280.00  51.89
SO LOCATION  ON_0068  VOLUME  609800.00  4200300.00  50.04
SO LOCATION  ON_0069  VOLUME  609800.00  4200320.00  49.07
SO LOCATION  ON_0070  VOLUME  609800.00  4200340.00  48.83
SO LOCATION  ON_0071  VOLUME  609800.00  4200360.00  48.89
SO LOCATION  ON_0072  VOLUME  609800.00  4200380.00  48.87
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Modeled Onsite Sources

SO LOCATION ON_0073 VOLUME 609800.00 4200400.00 48.55

SO LOCATION ON_0074 VOLUME 609800.00 4200420.00 48.21

SO LOCATION ON_0075 VOLUME 609800.00 4200440.00 47.97

SO LOCATION ON_0076 VOLUME 609800.00 4200460.00 47.65

SO LOCATION ON_0077 VOLUME 609800.00 4200480.00 46.94

SO LOCATION ON_0078 VOLUME 609800.00 4200500.00 46.29

SO LOCATION ON_0079 VOLUME 609800.00 4200520.00 45.43

SO LOCATION ON_0080 VOLUME 609800.00 4200540.00 44.47

SO LOCATION ON_0081 VOLUME 609800.00 4200560.00 44.95

SO LOCATION ON_0082 VOLUME 609800.00 4200580.00 46.67

SO LOCATION ON_0083 VOLUME 609800.00 4200600.00 46.68

SO LOCATION ON_0084 VOLUME 609800.00 4200620.00 46.39

SO LOCATION ON_0085 VOLUME 609800.00 4200640.00 46.21

SO LOCATION ON_0086 VOLUME 609800.00 4200660.00 46.37

SO LOCATION ON_0087 VOLUME 609820.00 4199860.00 70.11

SO LOCATION ON_0088 VOLUME 609820.00 4199880.00 68.70

SO LOCATION ON_0089 VOLUME 609820.00 4199900.00 66.52

SO LOCATION ON_0090 VOLUME 609820.00 4199920.00 64.02

SO LOCATION ON_0091 VOLUME 609820.00 4199940.00 61.44

SO LOCATION ON_0092 VOLUME 609820.00 4199960.00 59.21

SO LOCATION ON_0093 VOLUME 609820.00 4199980.00 57.00

SO LOCATION ON_0094 VOLUME 609820.00 4200000.00 55.80

SO LOCATION ON_0095 VOLUME 609820.00 4200020.00 55.81

SO LOCATION ON_0096 VOLUME 609820.00 4200040.00 56.86

Modeled Onsite Sources

SO LOCATION ON_0097 VOLUME 609820.00 4200060.00 58.41

SO LOCATION ON_0098 VOLUME 609820.00 4200080.00 59.57

SO LOCATION ON_0099 VOLUME 609820.00 4200100.00 60.29

SO LOCATION ON_0100 VOLUME 609820.00 4200120.00 60.52

SO LOCATION ON_0101 VOLUME 609820.00 4200140.00 60.36

SO LOCATION ON_0102 VOLUME 609820.00 4200160.00 59.74

SO LOCATION ON_0103 VOLUME 609820.00 4200180.00 58.71

SO LOCATION ON_0104 VOLUME 609820.00 4200200.00 57.19

SO LOCATION ON_0105 VOLUME 609820.00 4200220.00 54.90

SO LOCATION ON_0106 VOLUME 609820.00 4200240.00 52.78

SO LOCATION ON_0107 VOLUME 609820.00 4200260.00 50.94

SO LOCATION ON_0108 VOLUME 609820.00 4200280.00 49.74

SO LOCATION ON_0109 VOLUME 609820.00 4200300.00 49.07

SO LOCATION ON_0110 VOLUME 609820.00 4200320.00 48.53

SO LOCATION ON_0111 VOLUME 609820.00 4200340.00 48.29

SO LOCATION ON_0112 VOLUME 609820.00 4200360.00 48.22

SO LOCATION ON_0113 VOLUME 609820.00 4200380.00 49.05

SO LOCATION ON_0114 VOLUME 609820.00 4200400.00 49.35

SO LOCATION ON_0115 VOLUME 609820.00 4200420.00 47.94

SO LOCATION ON_0116 VOLUME 609820.00 4200440.00 48.30

SO LOCATION ON_0117 VOLUME 609820.00 4200460.00 48.15

SO LOCATION ON_0118 VOLUME 609820.00 4200480.00 47.31

SO LOCATION ON_0119 VOLUME 609820.00 4200500.00 46.06

SO LOCATION ON_0120 VOLUME 609820.00 4200520.00 45.44

Modeled Onsite Sources

SO LOCATION ON_0121 VOLUME 609820.00 4200540.00 43.80

SO LOCATION ON_0122 VOLUME 609820.00 4200560.00 44.60

SO LOCATION ON_0123 VOLUME 609820.00 4200580.00 47.54

SO LOCATION ON_0124 VOLUME 609820.00 4200600.00 46.79

SO LOCATION ON_0125 VOLUME 609820.00 4200620.00 46.56

SO LOCATION ON_0126 VOLUME 609820.00 4200640.00 46.48

SO LOCATION ON_0127 VOLUME 609820.00 4200660.00 46.56

SO LOCATION ON_0128 VOLUME 609840.00 4199860.00 67.48

SO LOCATION ON_0129 VOLUME 609840.00 4199880.00 66.17

SO LOCATION ON_0130 VOLUME 609840.00 4199900.00 64.18

SO LOCATION ON_0131 VOLUME 609840.00 4199920.00 62.28

SO LOCATION ON_0132 VOLUME 609840.00 4199940.00 60.02

SO LOCATION ON_0133 VOLUME 609840.00 4199960.00 57.62

SO LOCATION ON_0134 VOLUME 609840.00 4199980.00 55.78

SO LOCATION ON_0135 VOLUME 609840.00 4200000.00 54.69

SO LOCATION ON_0136 VOLUME 609840.00 4200020.00 54.27

SO LOCATION ON_0137 VOLUME 609840.00 4200040.00 54.70

SO LOCATION ON_0138 VOLUME 609840.00 4200060.00 55.25

SO LOCATION ON_0139 VOLUME 609840.00 4200080.00 56.03

SO LOCATION ON_0140 VOLUME 609840.00 4200100.00 56.63

SO LOCATION ON_0141 VOLUME 609840.00 4200120.00 56.82

SO LOCATION ON_0142 VOLUME 609840.00 4200140.00 56.71

SO LOCATION ON_0143 VOLUME 609840.00 4200160.00 56.30

SO LOCATION ON_0144 VOLUME 609840.00 4200180.00 55.32

Modeled Onsite Sources

SO LOCATION ON_0145 VOLUME 609840.00 4200200.00 53.77

SO LOCATION ON_0146 VOLUME 609840.00 4200220.00 51.45

SO LOCATION ON_0147 VOLUME 609840.00 4200240.00 49.70

SO LOCATION ON_0148 VOLUME 609840.00 4200260.00 48.87

SO LOCATION ON_0149 VOLUME 609840.00 4200280.00 48.30

SO LOCATION ON_0150 VOLUME 609840.00 4200300.00 47.82

SO LOCATION ON_0151 VOLUME 609840.00 4200320.00 47.96

SO LOCATION ON_0152 VOLUME 609840.00 4200340.00 48.43

SO LOCATION ON_0153 VOLUME 609840.00 4200360.00 49.27

SO LOCATION ON_0154 VOLUME 609840.00 4200380.00 49.87

SO LOCATION ON_0155 VOLUME 609840.00 4200400.00 50.41

SO LOCATION ON_0156 VOLUME 609840.00 4200420.00 51.02

SO LOCATION ON_0157 VOLUME 609840.00 4200440.00 50.70

SO LOCATION ON_0158 VOLUME 609840.00 4200460.00 49.77

SO LOCATION ON_0159 VOLUME 609840.00 4200480.00 47.99

SO LOCATION ON_0160 VOLUME 609840.00 4200500.00 45.19

SO LOCATION ON_0161 VOLUME 609840.00 4200520.00 43.15

SO LOCATION ON_0162 VOLUME 609840.00 4200540.00 43.15

SO LOCATION ON_0163 VOLUME 609840.00 4200560.00 45.34

SO LOCATION ON_0164 VOLUME 609840.00 4200580.00 46.30

SO LOCATION ON_0165 VOLUME 609840.00 4200600.00 46.95

SO LOCATION ON_0166 VOLUME 609840.00 4200620.00 46.89

SO LOCATION ON_0167 VOLUME 609840.00 4200640.00 46.85

SO LOCATION ON_0168 VOLUME 609840.00 4200660.00 46.85

Modeled Onsite Sources

SO LOCATION ON_0169 VOLUME 609860.00 4199880.00 63.19

SO LOCATION ON_0170 VOLUME 609860.00 4199900.00 61.63

SO LOCATION ON_0171 VOLUME 609860.00 4199920.00 60.60

SO LOCATION ON_0172 VOLUME 609860.00 4199940.00 58.21

SO LOCATION ON_0173 VOLUME 609860.00 4199960.00 55.95

SO LOCATION ON_0174 VOLUME 609860.00 4199980.00 54.58

SO LOCATION ON_0175 VOLUME 609860.00 4200000.00 53.48

SO LOCATION ON_0176 VOLUME 609860.00 4200020.00 52.67

SO LOCATION ON_0177 VOLUME 609860.00 4200040.00 52.51

SO LOCATION ON_0178 VOLUME 609860.00 4200060.00 52.86

SO LOCATION ON_0179 VOLUME 609860.00 4200080.00 53.34

SO LOCATION ON_0180 VOLUME 609860.00 4200100.00 53.73

SO LOCATION ON_0181 VOLUME 609860.00 4200120.00 53.78

SO LOCATION ON_0182 VOLUME 609860.00 4200140.00 53.48

SO LOCATION ON_0183 VOLUME 609860.00 4200160.00 52.82

SO LOCATION ON_0184 VOLUME 609860.00 4200180.00 51.71

SO LOCATION ON_0185 VOLUME 609860.00 4200200.00 50.19

SO LOCATION ON_0186 VOLUME 609860.00 4200220.00 48.92

SO LOCATION ON_0187 VOLUME 609860.00 4200240.00 47.88

SO LOCATION ON_0188 VOLUME 609860.00 4200260.00 47.38

SO LOCATION ON_0189 VOLUME 609860.00 4200280.00 47.73

SO LOCATION ON_0190 VOLUME 609860.00 4200300.00 48.50

SO LOCATION ON_0191 VOLUME 609860.00 4200320.00 49.31

SO LOCATION ON_0192 VOLUME 609860.00 4200340.00 50.29

Modeled Onsite Sources

SO LOCATION ON_0193 VOLUME 609860.00 4200360.00 51.63

SO LOCATION ON_0194 VOLUME 609860.00 4200380.00 53.38

SO LOCATION ON_0195 VOLUME 609860.00 4200400.00 54.65

SO LOCATION ON_0196 VOLUME 609860.00 4200420.00 55.14

SO LOCATION ON_0197 VOLUME 609860.00 4200440.00 54.54

SO LOCATION ON_0198 VOLUME 609860.00 4200460.00 50.73

SO LOCATION ON_0199 VOLUME 609860.00 4200480.00 47.84

SO LOCATION ON_0200 VOLUME 609860.00 4200500.00 44.73

SO LOCATION ON_0201 VOLUME 609860.00 4200520.00 42.60

SO LOCATION ON_0202 VOLUME 609860.00 4200540.00 44.49

SO LOCATION ON_0203 VOLUME 609860.00 4200560.00 45.72

SO LOCATION ON_0204 VOLUME 609860.00 4200580.00 46.44

SO LOCATION ON_0205 VOLUME 609860.00 4200600.00 46.69

SO LOCATION ON_0206 VOLUME 609860.00 4200620.00 46.76

SO LOCATION ON_0207 VOLUME 609860.00 4200640.00 46.85

SO LOCATION ON_0208 VOLUME 609860.00 4200660.00 46.93

SO LOCATION ON_0209 VOLUME 609880.00 4199880.00 62.10

SO LOCATION ON_0210 VOLUME 609880.00 4199900.00 60.47

SO LOCATION ON_0211 VOLUME 609880.00 4199920.00 59.10

SO LOCATION ON_0212 VOLUME 609880.00 4199940.00 56.98

SO LOCATION ON_0213 VOLUME 609880.00 4199960.00 55.03

SO LOCATION ON_0214 VOLUME 609880.00 4199980.00 53.62

SO LOCATION ON_0215 VOLUME 609880.00 4200000.00 51.95

SO LOCATION ON_0216 VOLUME 609880.00 4200020.00 50.60

Modeled Onsite Sources

SO LOCATION ON_0217 VOLUME 609880.00 4200040.00 50.35

SO LOCATION ON_0218 VOLUME 609880.00 4200060.00 50.60

SO LOCATION ON_0219 VOLUME 609880.00 4200080.00 50.93

SO LOCATION ON_0220 VOLUME 609880.00 4200100.00 51.12

SO LOCATION ON_0221 VOLUME 609880.00 4200120.00 51.08

SO LOCATION ON_0222 VOLUME 609880.00 4200140.00 50.55

SO LOCATION ON_0223 VOLUME 609880.00 4200160.00 49.89

SO LOCATION ON_0224 VOLUME 609880.00 4200180.00 49.11

SO LOCATION ON_0225 VOLUME 609880.00 4200200.00 48.35

SO LOCATION ON_0226 VOLUME 609880.00 4200220.00 47.36

SO LOCATION ON_0227 VOLUME 609880.00 4200240.00 47.52

SO LOCATION ON_0228 VOLUME 609880.00 4200260.00 48.43

SO LOCATION ON_0229 VOLUME 609880.00 4200280.00 49.14

SO LOCATION ON_0230 VOLUME 609880.00 4200300.00 50.25

SO LOCATION ON_0231 VOLUME 609880.00 4200320.00 52.02

SO LOCATION ON_0232 VOLUME 609880.00 4200340.00 54.01

SO LOCATION ON_0233 VOLUME 609880.00 4200360.00 55.68

SO LOCATION ON_0234 VOLUME 609880.00 4200380.00 56.70

SO LOCATION ON_0235 VOLUME 609880.00 4200400.00 57.07

SO LOCATION ON_0236 VOLUME 609880.00 4200420.00 56.68

SO LOCATION ON_0237 VOLUME 609880.00 4200440.00 55.08

SO LOCATION ON_0238 VOLUME 609880.00 4200460.00 51.16

SO LOCATION ON_0239 VOLUME 609880.00 4200480.00 47.88

SO LOCATION ON_0240 VOLUME 609880.00 4200500.00 44.69

Modeled Onsite Sources

SO LOCATION ON_0241 VOLUME 609880.00 4200520.00 42.23

SO LOCATION ON_0242 VOLUME 609880.00 4200540.00 45.01

SO LOCATION ON_0243 VOLUME 609880.00 4200560.00 46.63

SO LOCATION ON_0244 VOLUME 609880.00 4200580.00 46.37

SO LOCATION ON_0245 VOLUME 609880.00 4200600.00 46.49

SO LOCATION ON_0246 VOLUME 609880.00 4200620.00 46.52

SO LOCATION ON_0247 VOLUME 609880.00 4200640.00 46.65

SO LOCATION ON_0248 VOLUME 609880.00 4200660.00 46.63

SO LOCATION ON_0249 VOLUME 609900.00 4199880.00 62.30

SO LOCATION ON_0250 VOLUME 609900.00 4199900.00 60.13

SO LOCATION ON_0251 VOLUME 609900.00 4199920.00 58.36

SO LOCATION ON_0252 VOLUME 609900.00 4199940.00 56.88

SO LOCATION ON_0253 VOLUME 609900.00 4199960.00 55.08

SO LOCATION ON_0254 VOLUME 609900.00 4199980.00 52.62

SO LOCATION ON_0255 VOLUME 609900.00 4200000.00 50.77

SO LOCATION ON_0256 VOLUME 609900.00 4200020.00 49.36

SO LOCATION ON_0257 VOLUME 609900.00 4200040.00 48.89

SO LOCATION ON_0258 VOLUME 609900.00 4200060.00 48.98

SO LOCATION ON_0259 VOLUME 609900.00 4200080.00 49.08

SO LOCATION ON_0260 VOLUME 609900.00 4200100.00 49.20

SO LOCATION ON_0261 VOLUME 609900.00 4200120.00 49.10

SO LOCATION ON_0262 VOLUME 609900.00 4200140.00 48.83

SO LOCATION ON_0263 VOLUME 609900.00 4200160.00 48.32

SO LOCATION ON_0264 VOLUME 609900.00 4200180.00 47.68

Modeled Onsite Sources

SO LOCATION ON_0265 VOLUME 609900.00 4200200.00 47.11

SO LOCATION ON_0266 VOLUME 609900.00 4200220.00 47.82

SO LOCATION ON_0267 VOLUME 609900.00 4200240.00 48.80

SO LOCATION ON_0268 VOLUME 609900.00 4200260.00 49.84

SO LOCATION ON_0269 VOLUME 609900.00 4200280.00 51.52

SO LOCATION ON_0270 VOLUME 609900.00 4200300.00 53.40

SO LOCATION ON_0271 VOLUME 609900.00 4200320.00 55.41

SO LOCATION ON_0272 VOLUME 609900.00 4200340.00 56.73

SO LOCATION ON_0273 VOLUME 609900.00 4200360.00 57.81

SO LOCATION ON_0274 VOLUME 609900.00 4200380.00 58.10

SO LOCATION ON_0275 VOLUME 609900.00 4200400.00 57.36

SO LOCATION ON_0276 VOLUME 609900.00 4200420.00 56.19

SO LOCATION ON_0277 VOLUME 609900.00 4200440.00 53.88

SO LOCATION ON_0278 VOLUME 609900.00 4200460.00 50.42

SO LOCATION ON_0279 VOLUME 609900.00 4200480.00 47.70

SO LOCATION ON_0280 VOLUME 609900.00 4200500.00 44.96

SO LOCATION ON_0281 VOLUME 609900.00 4200520.00 42.75

SO LOCATION ON_0282 VOLUME 609900.00 4200540.00 44.58

SO LOCATION ON_0283 VOLUME 609900.00 4200560.00 46.98

SO LOCATION ON_0284 VOLUME 609900.00 4200580.00 46.46

SO LOCATION ON_0285 VOLUME 609900.00 4200600.00 46.10

SO LOCATION ON_0286 VOLUME 609900.00 4200620.00 46.20

SO LOCATION ON_0287 VOLUME 609900.00 4200640.00 46.24

SO LOCATION ON_0288 VOLUME 609900.00 4200660.00 46.35

Modeled Onsite Sources

SO LOCATION ON_0289 VOLUME 609920.00 4199880.00 61.81

SO LOCATION ON_0290 VOLUME 609920.00 4199900.00 59.59

SO LOCATION ON_0291 VOLUME 609920.00 4199920.00 57.52

SO LOCATION ON_0292 VOLUME 609920.00 4199940.00 56.25

SO LOCATION ON_0293 VOLUME 609920.00 4199960.00 54.21

SO LOCATION ON_0294 VOLUME 609920.00 4199980.00 51.50

SO LOCATION ON_0295 VOLUME 609920.00 4200000.00 49.86

SO LOCATION ON_0296 VOLUME 609920.00 4200020.00 48.94

SO LOCATION ON_0297 VOLUME 609920.00 4200040.00 48.01

SO LOCATION ON_0298 VOLUME 609920.00 4200060.00 47.86

SO LOCATION ON_0299 VOLUME 609920.00 4200080.00 47.90

SO LOCATION ON_0300 VOLUME 609920.00 4200100.00 47.93

SO LOCATION ON_0301 VOLUME 609920.00 4200120.00 47.81

SO LOCATION ON_0302 VOLUME 609920.00 4200140.00 47.52

SO LOCATION ON_0303 VOLUME 609920.00 4200160.00 47.12

SO LOCATION ON_0304 VOLUME 609920.00 4200180.00 47.12

SO LOCATION ON_0305 VOLUME 609920.00 4200200.00 47.84

SO LOCATION ON_0306 VOLUME 609920.00 4200220.00 48.88

SO LOCATION ON_0307 VOLUME 609920.00 4200240.00 50.37

SO LOCATION ON_0308 VOLUME 609920.00 4200260.00 52.29

SO LOCATION ON_0309 VOLUME 609920.00 4200280.00 54.31

SO LOCATION ON_0310 VOLUME 609920.00 4200300.00 56.14

SO LOCATION ON_0311 VOLUME 609920.00 4200320.00 57.47

SO LOCATION ON_0312 VOLUME 609920.00 4200340.00 58.61

Modeled Onsite Sources

SO LOCATION ON_0313 VOLUME 609920.00 4200360.00 59.18

SO LOCATION ON_0314 VOLUME 609920.00 4200380.00 58.10

SO LOCATION ON_0315 VOLUME 609920.00 4200400.00 56.67

SO LOCATION ON_0316 VOLUME 609920.00 4200420.00 54.78

SO LOCATION ON_0317 VOLUME 609920.00 4200440.00 52.06

SO LOCATION ON_0318 VOLUME 609920.00 4200460.00 49.42

SO LOCATION ON_0319 VOLUME 609920.00 4200480.00 47.35

SO LOCATION ON_0320 VOLUME 609920.00 4200500.00 45.13

SO LOCATION ON_0321 VOLUME 609920.00 4200520.00 42.98

SO LOCATION ON_0322 VOLUME 609920.00 4200540.00 43.49

SO LOCATION ON_0323 VOLUME 609920.00 4200560.00 46.21

SO LOCATION ON_0324 VOLUME 609920.00 4200580.00 46.22

SO LOCATION ON_0325 VOLUME 609920.00 4200600.00 45.93

SO LOCATION ON_0326 VOLUME 609920.00 4200620.00 45.89

SO LOCATION ON_0327 VOLUME 609920.00 4200640.00 45.99

SO LOCATION ON_0328 VOLUME 609920.00 4200660.00 46.03

SO LOCATION ON_0329 VOLUME 609940.00 4199880.00 60.36

SO LOCATION ON_0330 VOLUME 609940.00 4199900.00 58.07

SO LOCATION ON_0331 VOLUME 609940.00 4199920.00 56.52

SO LOCATION ON_0332 VOLUME 609940.00 4199940.00 54.53

SO LOCATION ON_0333 VOLUME 609940.00 4199960.00 51.52

SO LOCATION ON_0334 VOLUME 609940.00 4199980.00 49.59

SO LOCATION ON_0335 VOLUME 609940.00 4200000.00 48.86

SO LOCATION ON_0336 VOLUME 609940.00 4200020.00 48.12

Modeled Onsite Sources

SO LOCATION ON_0337 VOLUME 609940.00 4200040.00 47.48

SO LOCATION ON_0338 VOLUME 609940.00 4200060.00 47.44

SO LOCATION ON_0339 VOLUME 609940.00 4200080.00 47.46

SO LOCATION ON_0340 VOLUME 609940.00 4200100.00 47.76

SO LOCATION ON_0341 VOLUME 609940.00 4200120.00 48.05

SO LOCATION ON_0342 VOLUME 609940.00 4200140.00 48.14

SO LOCATION ON_0343 VOLUME 609940.00 4200160.00 48.19

SO LOCATION ON_0344 VOLUME 609940.00 4200180.00 48.27

SO LOCATION ON_0345 VOLUME 609940.00 4200200.00 48.95

SO LOCATION ON_0346 VOLUME 609940.00 4200220.00 50.61

SO LOCATION ON_0347 VOLUME 609940.00 4200240.00 52.78

SO LOCATION ON_0348 VOLUME 609940.00 4200260.00 54.87

SO LOCATION ON_0349 VOLUME 609940.00 4200280.00 56.84

SO LOCATION ON_0350 VOLUME 609940.00 4200300.00 58.53

SO LOCATION ON_0351 VOLUME 609940.00 4200320.00 59.87

SO LOCATION ON_0352 VOLUME 609940.00 4200340.00 60.61

SO LOCATION ON_0353 VOLUME 609940.00 4200360.00 60.11

SO LOCATION ON_0354 VOLUME 609940.00 4200380.00 57.49

SO LOCATION ON_0355 VOLUME 609940.00 4200400.00 55.42

SO LOCATION ON_0356 VOLUME 609940.00 4200420.00 52.76

SO LOCATION ON_0357 VOLUME 609940.00 4200440.00 50.08

SO LOCATION ON_0358 VOLUME 609940.00 4200460.00 48.50

SO LOCATION ON_0359 VOLUME 609940.00 4200480.00 46.82

SO LOCATION ON_0360 VOLUME 609940.00 4200500.00 45.05

Modeled Onsite Sources

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SO LOCATION  ON_0361  VOLUME  609940.00  4200520.00  43.08
SO LOCATION  ON_0362  VOLUME  609940.00  4200540.00  43.32
SO LOCATION  ON_0363  VOLUME  609940.00  4200560.00  45.87
SO LOCATION  ON_0364  VOLUME  609940.00  4200580.00  45.86
SO LOCATION  ON_0365  VOLUME  609940.00  4200600.00  45.69
SO LOCATION  ON_0366  VOLUME  609940.00  4200620.00  45.67
SO LOCATION  ON_0367  VOLUME  609940.00  4200640.00  45.74
SO LOCATION  ON_0368  VOLUME  609940.00  4200660.00  45.79
SO LOCATION  ON_0369  VOLUME  609960.00  4199880.00  57.58
SO LOCATION  ON_0370  VOLUME  609960.00  4199900.00  56.03
SO LOCATION  ON_0371  VOLUME  609960.00  4199920.00  54.28
SO LOCATION  ON_0372  VOLUME  609960.00  4199940.00  51.69
SO LOCATION  ON_0373  VOLUME  609960.00  4199960.00  49.16
SO LOCATION  ON_0374  VOLUME  609960.00  4199980.00  47.97
SO LOCATION  ON_0375  VOLUME  609960.00  4200000.00  47.86
SO LOCATION  ON_0376  VOLUME  609960.00  4200020.00  47.89
SO LOCATION  ON_0377  VOLUME  609960.00  4200040.00  48.22
SO LOCATION  ON_0378  VOLUME  609960.00  4200060.00  48.49
SO LOCATION  ON_0379  VOLUME  609960.00  4200080.00  48.84
SO LOCATION  ON_0380  VOLUME  609960.00  4200100.00  49.28
SO LOCATION  ON_0381  VOLUME  609960.00  4200120.00  49.95
SO LOCATION  ON_0382  VOLUME  609960.00  4200140.00  50.19
SO LOCATION  ON_0383  VOLUME  609960.00  4200160.00  50.31
SO LOCATION  ON_0384  VOLUME  609960.00  4200180.00  50.47
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Modeled Onsite Sources

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SO LOCATION  ON_0385  VOLUME  609960.00  4200200.00  51.17
SO LOCATION  ON_0386  VOLUME  609960.00  4200220.00  53.08
SO LOCATION  ON_0387  VOLUME  609960.00  4200240.00  55.28
SO LOCATION  ON_0388  VOLUME  609960.00  4200260.00  57.28
SO LOCATION  ON_0389  VOLUME  609960.00  4200280.00  59.26
SO LOCATION  ON_0390  VOLUME  609960.00  4200300.00  61.09
SO LOCATION  ON_0391  VOLUME  609960.00  4200320.00  62.04
SO LOCATION  ON_0392  VOLUME  609960.00  4200340.00  62.21
SO LOCATION  ON_0393  VOLUME  609960.00  4200360.00  59.83
SO LOCATION  ON_0394  VOLUME  609960.00  4200380.00  56.38
SO LOCATION  ON_0395  VOLUME  609960.00  4200400.00  53.62
SO LOCATION  ON_0396  VOLUME  609960.00  4200420.00  50.64
SO LOCATION  ON_0397  VOLUME  609960.00  4200440.00  48.89
SO LOCATION  ON_0398  VOLUME  609960.00  4200460.00  47.87
SO LOCATION  ON_0399  VOLUME  609960.00  4200480.00  46.26
SO LOCATION  ON_0400  VOLUME  609960.00  4200500.00  44.65
SO LOCATION  ON_0401  VOLUME  609960.00  4200520.00  42.50
SO LOCATION  ON_0402  VOLUME  609960.00  4200540.00  44.64
SO LOCATION  ON_0403  VOLUME  609960.00  4200560.00  46.76
SO LOCATION  ON_0404  VOLUME  609960.00  4200580.00  45.64
SO LOCATION  ON_0405  VOLUME  609960.00  4200600.00  45.51
SO LOCATION  ON_0406  VOLUME  609960.00  4200620.00  45.48
SO LOCATION  ON_0407  VOLUME  609960.00  4200640.00  45.54
SO LOCATION  ON_0408  VOLUME  609960.00  4200660.00  45.58
```

Modeled Onsite Sources

```
SO LOCATION  ON_0409  VOLUME  609980.00  4199880.00  54.68
SO LOCATION  ON_0410  VOLUME  609980.00  4199900.00  53.32
SO LOCATION  ON_0411  VOLUME  609980.00  4199920.00  51.64
SO LOCATION  ON_0412  VOLUME  609980.00  4199940.00  49.57
SO LOCATION  ON_0413  VOLUME  609980.00  4199960.00  48.18
SO LOCATION  ON_0414  VOLUME  609980.00  4199980.00  48.21
SO LOCATION  ON_0415  VOLUME  609980.00  4200000.00  48.62
SO LOCATION  ON_0416  VOLUME  609980.00  4200020.00  48.97
SO LOCATION  ON_0417  VOLUME  609980.00  4200040.00  49.50
SO LOCATION  ON_0418  VOLUME  609980.00  4200060.00  50.19
SO LOCATION  ON_0419  VOLUME  609980.00  4200080.00  51.13
SO LOCATION  ON_0420  VOLUME  609980.00  4200100.00  52.13
SO LOCATION  ON_0421  VOLUME  609980.00  4200120.00  53.05
SO LOCATION  ON_0422  VOLUME  609980.00  4200140.00  53.63
SO LOCATION  ON_0423  VOLUME  609980.00  4200160.00  53.90
SO LOCATION  ON_0424  VOLUME  609980.00  4200180.00  53.97
SO LOCATION  ON_0425  VOLUME  609980.00  4200200.00  54.20
SO LOCATION  ON_0426  VOLUME  609980.00  4200220.00  55.33
SO LOCATION  ON_0427  VOLUME  609980.00  4200240.00  57.58
SO LOCATION  ON_0428  VOLUME  609980.00  4200260.00  59.72
SO LOCATION  ON_0429  VOLUME  609980.00  4200280.00  61.56
SO LOCATION  ON_0430  VOLUME  609980.00  4200300.00  62.67
SO LOCATION  ON_0431  VOLUME  609980.00  4200320.00  63.29
SO LOCATION  ON_0432  VOLUME  609980.00  4200340.00  62.33
```

Modeled Onsite Sources

```
SO LOCATION  ON_0433  VOLUME  609980.00  4200360.00  58.74
SO LOCATION  ON_0434  VOLUME  609980.00  4200380.00  54.91
SO LOCATION  ON_0435  VOLUME  609980.00  4200400.00  51.99
SO LOCATION  ON_0436  VOLUME  609980.00  4200420.00  49.39
SO LOCATION  ON_0437  VOLUME  609980.00  4200440.00  48.33
SO LOCATION  ON_0438  VOLUME  609980.00  4200460.00  47.35
SO LOCATION  ON_0439  VOLUME  609980.00  4200480.00  45.87
SO LOCATION  ON_0440  VOLUME  609980.00  4200500.00  44.46
SO LOCATION  ON_0441  VOLUME  609980.00  4200520.00  42.62
SO LOCATION  ON_0442  VOLUME  609980.00  4200540.00  44.26
SO LOCATION  ON_0443  VOLUME  609980.00  4200560.00  46.50
SO LOCATION  ON_0444  VOLUME  609980.00  4200580.00  45.43
SO LOCATION  ON_0445  VOLUME  609980.00  4200600.00  45.08
SO LOCATION  ON_0446  VOLUME  609980.00  4200620.00  45.13
SO LOCATION  ON_0447  VOLUME  609980.00  4200640.00  45.27
SO LOCATION  ON_0448  VOLUME  609980.00  4200660.00  45.30
SO LOCATION  ON_0449  VOLUME  610000.00  4199880.00  52.30
SO LOCATION  ON_0450  VOLUME  610000.00  4199900.00  50.84
SO LOCATION  ON_0451  VOLUME  610000.00  4199920.00  49.53
SO LOCATION  ON_0452  VOLUME  610000.00  4199940.00  48.63
SO LOCATION  ON_0453  VOLUME  610000.00  4199960.00  48.70
SO LOCATION  ON_0454  VOLUME  610000.00  4199980.00  49.18
SO LOCATION  ON_0455  VOLUME  610000.00  4200000.00  49.96
SO LOCATION  ON_0456  VOLUME  610000.00  4200020.00  50.81
```

Modeled Onsite Sources

SO LOCATION ON_0457 VOLUME 610000.00 4200040.00 51.80

SO LOCATION ON_0458 VOLUME 610000.00 4200060.00 52.96

SO LOCATION ON_0459 VOLUME 610000.00 4200080.00 54.23

SO LOCATION ON_0460 VOLUME 610000.00 4200100.00 55.34

SO LOCATION ON_0461 VOLUME 610000.00 4200120.00 56.34

SO LOCATION ON_0462 VOLUME 610000.00 4200140.00 57.07

SO LOCATION ON_0463 VOLUME 610000.00 4200160.00 57.42

SO LOCATION ON_0464 VOLUME 610000.00 4200180.00 57.33

SO LOCATION ON_0465 VOLUME 610000.00 4200200.00 57.27

SO LOCATION ON_0466 VOLUME 610000.00 4200220.00 58.23

SO LOCATION ON_0467 VOLUME 610000.00 4200240.00 59.91

SO LOCATION ON_0468 VOLUME 610000.00 4200260.00 61.73

SO LOCATION ON_0469 VOLUME 610000.00 4200280.00 62.91

SO LOCATION ON_0470 VOLUME 610000.00 4200300.00 63.64

SO LOCATION ON_0471 VOLUME 610000.00 4200320.00 63.29

SO LOCATION ON_0472 VOLUME 610000.00 4200340.00 61.39

SO LOCATION ON_0473 VOLUME 610000.00 4200360.00 57.32

SO LOCATION ON_0474 VOLUME 610000.00 4200380.00 53.83

SO LOCATION ON_0475 VOLUME 610000.00 4200400.00 50.80

SO LOCATION ON_0476 VOLUME 610000.00 4200420.00 48.92

SO LOCATION ON_0477 VOLUME 610000.00 4200440.00 47.97

SO LOCATION ON_0478 VOLUME 610000.00 4200460.00 47.00

SO LOCATION ON_0479 VOLUME 610000.00 4200480.00 45.68

SO LOCATION ON_0480 VOLUME 610000.00 4200500.00 44.56

Modeled Onsite Sources

SO LOCATION ON_0481 VOLUME 610000.00 4200520.00 42.86

SO LOCATION ON_0482 VOLUME 610000.00 4200540.00 43.55

SO LOCATION ON_0483 VOLUME 610000.00 4200560.00 47.17

SO LOCATION ON_0484 VOLUME 610000.00 4200580.00 45.21

SO LOCATION ON_0485 VOLUME 610000.00 4200600.00 45.02

SO LOCATION ON_0486 VOLUME 610000.00 4200620.00 44.83

SO LOCATION ON_0487 VOLUME 610000.00 4200640.00 44.91

SO LOCATION ON_0488 VOLUME 610000.00 4200660.00 44.96

SO LOCATION ON_0489 VOLUME 610020.00 4199880.00 50.28

SO LOCATION ON_0490 VOLUME 610020.00 4199900.00 49.40

SO LOCATION ON_0491 VOLUME 610020.00 4199920.00 49.38

SO LOCATION ON_0492 VOLUME 610020.00 4199940.00 49.39

SO LOCATION ON_0493 VOLUME 610020.00 4199960.00 49.80

SO LOCATION ON_0494 VOLUME 610020.00 4199980.00 50.81

SO LOCATION ON_0495 VOLUME 610020.00 4200000.00 51.89

SO LOCATION ON_0496 VOLUME 610020.00 4200020.00 52.98

SO LOCATION ON_0497 VOLUME 610020.00 4200040.00 54.21

SO LOCATION ON_0498 VOLUME 610020.00 4200060.00 55.60

SO LOCATION ON_0499 VOLUME 610020.00 4200080.00 57.03

SO LOCATION ON_0500 VOLUME 610020.00 4200100.00 58.38

SO LOCATION ON_0501 VOLUME 610020.00 4200120.00 59.65

SO LOCATION ON_0502 VOLUME 610020.00 4200140.00 60.62

SO LOCATION ON_0503 VOLUME 610020.00 4200160.00 60.88

SO LOCATION ON_0504 VOLUME 610020.00 4200180.00 61.01

Modeled Onsite Sources

SO LOCATION ON_0505 VOLUME 610020.00 4200200.00 60.79

SO LOCATION ON_0506 VOLUME 610020.00 4200220.00 61.02

SO LOCATION ON_0507 VOLUME 610020.00 4200240.00 61.90

SO LOCATION ON_0508 VOLUME 610020.00 4200260.00 62.95

SO LOCATION ON_0509 VOLUME 610020.00 4200280.00 63.97

SO LOCATION ON_0510 VOLUME 610020.00 4200300.00 63.98

SO LOCATION ON_0511 VOLUME 610020.00 4200320.00 62.77

SO LOCATION ON_0512 VOLUME 610020.00 4200340.00 60.30

SO LOCATION ON_0513 VOLUME 610020.00 4200360.00 56.06

SO LOCATION ON_0514 VOLUME 610020.00 4200380.00 52.82

SO LOCATION ON_0515 VOLUME 610020.00 4200400.00 49.96

SO LOCATION ON_0516 VOLUME 610020.00 4200420.00 48.66

SO LOCATION ON_0517 VOLUME 610020.00 4200440.00 47.76

SO LOCATION ON_0518 VOLUME 610020.00 4200460.00 46.81

SO LOCATION ON_0519 VOLUME 610020.00 4200480.00 45.57

SO LOCATION ON_0520 VOLUME 610020.00 4200500.00 44.50

SO LOCATION ON_0521 VOLUME 610020.00 4200520.00 42.78

SO LOCATION ON_0522 VOLUME 610020.00 4200540.00 42.97

SO LOCATION ON_0523 VOLUME 610020.00 4200560.00 47.19

SO LOCATION ON_0524 VOLUME 610020.00 4200580.00 45.45

SO LOCATION ON_0525 VOLUME 610020.00 4200600.00 44.79

SO LOCATION ON_0526 VOLUME 610020.00 4200620.00 44.63

SO LOCATION ON_0527 VOLUME 610020.00 4200640.00 44.63

SO LOCATION ON_0528 VOLUME 610020.00 4200660.00 44.77

Modeled Onsite Sources

SO LOCATION ON_0529 VOLUME 610040.00 4199880.00 49.80

SO LOCATION ON_0530 VOLUME 610040.00 4199900.00 49.26

SO LOCATION ON_0531 VOLUME 610040.00 4199920.00 49.60

SO LOCATION ON_0532 VOLUME 610040.00 4199940.00 50.35

SO LOCATION ON_0533 VOLUME 610040.00 4199960.00 51.54

SO LOCATION ON_0534 VOLUME 610040.00 4199980.00 52.71

SO LOCATION ON_0535 VOLUME 610040.00 4200000.00 53.83

SO LOCATION ON_0536 VOLUME 610040.00 4200020.00 55.02

SO LOCATION ON_0537 VOLUME 610040.00 4200040.00 56.51

SO LOCATION ON_0538 VOLUME 610040.00 4200060.00 58.11

SO LOCATION ON_0539 VOLUME 610040.00 4200080.00 59.76

SO LOCATION ON_0540 VOLUME 610040.00 4200100.00 61.36

SO LOCATION ON_0541 VOLUME 610040.00 4200120.00 62.58

SO LOCATION ON_0542 VOLUME 610040.00 4200140.00 63.28

SO LOCATION ON_0543 VOLUME 610040.00 4200160.00 63.53

SO LOCATION ON_0544 VOLUME 610040.00 4200180.00 63.51

SO LOCATION ON_0545 VOLUME 610040.00 4200200.00 63.24

SO LOCATION ON_0546 VOLUME 610040.00 4200220.00 63.16

SO LOCATION ON_0547 VOLUME 610040.00 4200240.00 63.50

SO LOCATION ON_0548 VOLUME 610040.00 4200260.00 64.23

SO LOCATION ON_0549 VOLUME 610040.00 4200280.00 64.64

SO LOCATION ON_0550 VOLUME 610040.00 4200300.00 63.95

SO LOCATION ON_0551 VOLUME 610040.00 4200320.00 62.43

SO LOCATION ON_0552 VOLUME 610040.00 4200340.00 59.28

Modeled Onsite Sources

```
SO LOCATION  ON_0553  VOLUME  610040.00  4200360.00  55.36
SO LOCATION  ON_0554  VOLUME  610040.00  4200380.00  51.96
SO LOCATION  ON_0555  VOLUME  610040.00  4200400.00  49.29
SO LOCATION  ON_0556  VOLUME  610040.00  4200420.00  48.39
SO LOCATION  ON_0557  VOLUME  610040.00  4200440.00  47.59
SO LOCATION  ON_0558  VOLUME  610040.00  4200460.00  46.61
SO LOCATION  ON_0559  VOLUME  610040.00  4200480.00  45.50
SO LOCATION  ON_0560  VOLUME  610040.00  4200500.00  44.57
SO LOCATION  ON_0561  VOLUME  610040.00  4200520.00  42.70
SO LOCATION  ON_0562  VOLUME  610040.00  4200540.00  42.33
SO LOCATION  ON_0563  VOLUME  610040.00  4200560.00  47.10
SO LOCATION  ON_0564  VOLUME  610040.00  4200580.00  45.71
SO LOCATION  ON_0565  VOLUME  610040.00  4200600.00  44.66
SO LOCATION  ON_0566  VOLUME  610040.00  4200620.00  44.53
SO LOCATION  ON_0567  VOLUME  610040.00  4200640.00  44.58
SO LOCATION  ON_0568  VOLUME  610040.00  4200660.00  44.68
SO LOCATION  ON_0569  VOLUME  610040.00  4200680.00  44.64
SO LOCATION  ON_0570  VOLUME  610060.00  4199880.00  49.75
SO LOCATION  ON_0571  VOLUME  610060.00  4199900.00  49.83
SO LOCATION  ON_0572  VOLUME  610060.00  4199920.00  50.83
SO LOCATION  ON_0573  VOLUME  610060.00  4199940.00  52.06
SO LOCATION  ON_0574  VOLUME  610060.00  4199960.00  53.26
SO LOCATION  ON_0575  VOLUME  610060.00  4199980.00  54.49
SO LOCATION  ON_0576  VOLUME  610060.00  4200000.00  55.82
```

Modeled Onsite Sources

```
SO LOCATION  ON_0577  VOLUME  610060.00  4200020.00  57.21
SO LOCATION  ON_0578  VOLUME  610060.00  4200040.00  58.76
SO LOCATION  ON_0579  VOLUME  610060.00  4200060.00  60.52
SO LOCATION  ON_0580  VOLUME  610060.00  4200080.00  62.35
SO LOCATION  ON_0581  VOLUME  610060.00  4200100.00  63.82
SO LOCATION  ON_0582  VOLUME  610060.00  4200120.00  64.94
SO LOCATION  ON_0583  VOLUME  610060.00  4200140.00  65.75
SO LOCATION  ON_0584  VOLUME  610060.00  4200160.00  66.05
SO LOCATION  ON_0585  VOLUME  610060.00  4200180.00  65.88
SO LOCATION  ON_0586  VOLUME  610060.00  4200200.00  65.73
SO LOCATION  ON_0587  VOLUME  610060.00  4200220.00  65.50
SO LOCATION  ON_0588  VOLUME  610060.00  4200240.00  65.22
SO LOCATION  ON_0589  VOLUME  610060.00  4200260.00  65.10
SO LOCATION  ON_0590  VOLUME  610060.00  4200280.00  64.60
SO LOCATION  ON_0591  VOLUME  610060.00  4200300.00  63.60
SO LOCATION  ON_0592  VOLUME  610060.00  4200320.00  61.97
SO LOCATION  ON_0593  VOLUME  610060.00  4200340.00  58.62
SO LOCATION  ON_0594  VOLUME  610060.00  4200360.00  54.83
SO LOCATION  ON_0595  VOLUME  610060.00  4200380.00  51.32
SO LOCATION  ON_0596  VOLUME  610060.00  4200400.00  49.08
SO LOCATION  ON_0597  VOLUME  610060.00  4200420.00  48.25
SO LOCATION  ON_0598  VOLUME  610060.00  4200440.00  47.45
SO LOCATION  ON_0599  VOLUME  610060.00  4200460.00  46.53
SO LOCATION  ON_0600  VOLUME  610060.00  4200480.00  45.54
```

Modeled Onsite Sources

```
SO LOCATION  ON_0601  VOLUME  610060.00  4200500.00  44.64
SO LOCATION  ON_0602  VOLUME  610060.00  4200520.00  43.63
SO LOCATION  ON_0603  VOLUME  610060.00  4200540.00  40.97
SO LOCATION  ON_0604  VOLUME  610060.00  4200560.00  46.01
SO LOCATION  ON_0605  VOLUME  610060.00  4200580.00  46.01
SO LOCATION  ON_0606  VOLUME  610060.00  4200600.00  44.79
SO LOCATION  ON_0607  VOLUME  610060.00  4200620.00  44.63
SO LOCATION  ON_0608  VOLUME  610060.00  4200640.00  44.59
SO LOCATION  ON_0609  VOLUME  610060.00  4200660.00  44.61
SO LOCATION  ON_0610  VOLUME  610060.00  4200680.00  44.56
SO LOCATION  ON_0611  VOLUME  610080.00  4199880.00  50.99
SO LOCATION  ON_0612  VOLUME  610080.00  4199900.00  51.70
SO LOCATION  ON_0613  VOLUME  610080.00  4199920.00  52.66
SO LOCATION  ON_0614  VOLUME  610080.00  4199940.00  53.72
SO LOCATION  ON_0615  VOLUME  610080.00  4199960.00  54.94
SO LOCATION  ON_0616  VOLUME  610080.00  4199980.00  56.35
SO LOCATION  ON_0617  VOLUME  610080.00  4200000.00  57.87
SO LOCATION  ON_0618  VOLUME  610080.00  4200020.00  59.35
SO LOCATION  ON_0619  VOLUME  610080.00  4200040.00  60.93
SO LOCATION  ON_0620  VOLUME  610080.00  4200060.00  62.87
SO LOCATION  ON_0621  VOLUME  610080.00  4200080.00  64.79
SO LOCATION  ON_0622  VOLUME  610080.00  4200100.00  66.35
SO LOCATION  ON_0623  VOLUME  610080.00  4200120.00  67.55
SO LOCATION  ON_0624  VOLUME  610080.00  4200140.00  68.00
```

Modeled Onsite Sources

```
SO LOCATION  ON_0625  VOLUME  610080.00  4200160.00  68.22
SO LOCATION  ON_0626  VOLUME  610080.00  4200180.00  67.77
SO LOCATION  ON_0627  VOLUME  610080.00  4200200.00  67.10
SO LOCATION  ON_0628  VOLUME  610080.00  4200220.00  66.40
SO LOCATION  ON_0629  VOLUME  610080.00  4200240.00  65.31
SO LOCATION  ON_0630  VOLUME  610080.00  4200260.00  64.48
SO LOCATION  ON_0631  VOLUME  610080.00  4200280.00  63.79
SO LOCATION  ON_0632  VOLUME  610080.00  4200300.00  62.92
SO LOCATION  ON_0633  VOLUME  610080.00  4200320.00  61.39
SO LOCATION  ON_0634  VOLUME  610080.00  4200340.00  57.62
SO LOCATION  ON_0635  VOLUME  610080.00  4200360.00  54.06
SO LOCATION  ON_0636  VOLUME  610080.00  4200380.00  50.76
SO LOCATION  ON_0637  VOLUME  610080.00  4200400.00  48.98
SO LOCATION  ON_0638  VOLUME  610080.00  4200420.00  48.15
SO LOCATION  ON_0639  VOLUME  610080.00  4200440.00  47.35
SO LOCATION  ON_0640  VOLUME  610080.00  4200460.00  46.53
SO LOCATION  ON_0641  VOLUME  610080.00  4200480.00  45.61
SO LOCATION  ON_0642  VOLUME  610080.00  4200500.00  44.78
SO LOCATION  ON_0643  VOLUME  610080.00  4200520.00  44.04
SO LOCATION  ON_0644  VOLUME  610080.00  4200540.00  41.16
SO LOCATION  ON_0645  VOLUME  610080.00  4200560.00  43.55
SO LOCATION  ON_0646  VOLUME  610080.00  4200580.00  47.33
SO LOCATION  ON_0647  VOLUME  610080.00  4200600.00  45.58
SO LOCATION  ON_0648  VOLUME  610080.00  4200620.00  44.87
```

Modeled Onsite Sources

```
SO LOCATION  ON_0649  VOLUME  610080.00  4200640.00  44.77
SO LOCATION  ON_0650  VOLUME  610080.00  4200660.00  44.66
SO LOCATION  ON_0651  VOLUME  610080.00  4200680.00  44.64
SO LOCATION  ON_0652  VOLUME  610100.00  4199880.00  53.03
SO LOCATION  ON_0653  VOLUME  610100.00  4199900.00  53.67
SO LOCATION  ON_0654  VOLUME  610100.00  4199920.00  54.43
SO LOCATION  ON_0655  VOLUME  610100.00  4199940.00  55.41
SO LOCATION  ON_0656  VOLUME  610100.00  4199960.00  56.87
SO LOCATION  ON_0657  VOLUME  610100.00  4199980.00  58.41
SO LOCATION  ON_0658  VOLUME  610100.00  4200000.00  59.94
SO LOCATION  ON_0659  VOLUME  610100.00  4200020.00  61.47
SO LOCATION  ON_0660  VOLUME  610100.00  4200040.00  63.35
SO LOCATION  ON_0661  VOLUME  610100.00  4200060.00  65.49
SO LOCATION  ON_0662  VOLUME  610100.00  4200080.00  67.42
SO LOCATION  ON_0663  VOLUME  610100.00  4200100.00  68.52
SO LOCATION  ON_0664  VOLUME  610100.00  4200120.00  69.09
SO LOCATION  ON_0665  VOLUME  610100.00  4200140.00  69.47
SO LOCATION  ON_0666  VOLUME  610100.00  4200160.00  69.35
SO LOCATION  ON_0667  VOLUME  610100.00  4200180.00  68.60
SO LOCATION  ON_0668  VOLUME  610100.00  4200200.00  67.37
SO LOCATION  ON_0669  VOLUME  610100.00  4200220.00  65.91
SO LOCATION  ON_0670  VOLUME  610100.00  4200240.00  64.26
SO LOCATION  ON_0671  VOLUME  610100.00  4200260.00  63.32
SO LOCATION  ON_0672  VOLUME  610100.00  4200280.00  62.71
```

Modeled Onsite Sources

```
SO LOCATION  ON_0673  VOLUME  610100.00  4200300.00  61.83
SO LOCATION  ON_0674  VOLUME  610100.00  4200320.00  59.59
SO LOCATION  ON_0675  VOLUME  610100.00  4200340.00  56.34
SO LOCATION  ON_0676  VOLUME  610100.00  4200360.00  53.06
SO LOCATION  ON_0677  VOLUME  610100.00  4200380.00  50.10
SO LOCATION  ON_0678  VOLUME  610100.00  4200400.00  48.80
SO LOCATION  ON_0679  VOLUME  610100.00  4200420.00  48.02
SO LOCATION  ON_0680  VOLUME  610100.00  4200440.00  47.29
SO LOCATION  ON_0681  VOLUME  610100.00  4200460.00  46.51
SO LOCATION  ON_0682  VOLUME  610100.00  4200480.00  45.65
SO LOCATION  ON_0683  VOLUME  610100.00  4200500.00  44.98
SO LOCATION  ON_0684  VOLUME  610100.00  4200520.00  44.23
SO LOCATION  ON_0685  VOLUME  610100.00  4200540.00  42.69
SO LOCATION  ON_0686  VOLUME  610100.00  4200560.00  41.73
SO LOCATION  ON_0687  VOLUME  610100.00  4200580.00  46.67
SO LOCATION  ON_0688  VOLUME  610100.00  4200600.00  46.66
SO LOCATION  ON_0689  VOLUME  610100.00  4200620.00  45.50
SO LOCATION  ON_0690  VOLUME  610100.00  4200640.00  45.07
SO LOCATION  ON_0691  VOLUME  610100.00  4200660.00  44.84
SO LOCATION  ON_0692  VOLUME  610100.00  4200680.00  44.68
SO LOCATION  ON_0693  VOLUME  610120.00  4199880.00  54.62
SO LOCATION  ON_0694  VOLUME  610120.00  4199900.00  55.30
SO LOCATION  ON_0695  VOLUME  610120.00  4199920.00  56.34
SO LOCATION  ON_0696  VOLUME  610120.00  4199940.00  57.59
```

Modeled Onsite Sources

```
SO LOCATION  ON_0697  VOLUME  610120.00  4199960.00  59.01
SO LOCATION  ON_0698  VOLUME  610120.00  4199980.00  60.52
SO LOCATION  ON_0699  VOLUME  610120.00  4200000.00  62.07
SO LOCATION  ON_0700  VOLUME  610120.00  4200020.00  63.97
SO LOCATION  ON_0701  VOLUME  610120.00  4200040.00  65.98
SO LOCATION  ON_0702  VOLUME  610120.00  4200060.00  67.85
SO LOCATION  ON_0703  VOLUME  610120.00  4200080.00  68.99
SO LOCATION  ON_0704  VOLUME  610120.00  4200100.00  69.85
SO LOCATION  ON_0705  VOLUME  610120.00  4200120.00  70.37
SO LOCATION  ON_0706  VOLUME  610120.00  4200140.00  70.00
SO LOCATION  ON_0707  VOLUME  610120.00  4200160.00  68.98
SO LOCATION  ON_0708  VOLUME  610120.00  4200180.00  67.92
SO LOCATION  ON_0709  VOLUME  610120.00  4200200.00  66.24
SO LOCATION  ON_0710  VOLUME  610120.00  4200220.00  64.27
SO LOCATION  ON_0711  VOLUME  610120.00  4200240.00  62.76
SO LOCATION  ON_0712  VOLUME  610120.00  4200260.00  61.85
SO LOCATION  ON_0713  VOLUME  610120.00  4200280.00  60.89
SO LOCATION  ON_0714  VOLUME  610120.00  4200300.00  59.48
SO LOCATION  ON_0715  VOLUME  610120.00  4200320.00  57.38
SO LOCATION  ON_0716  VOLUME  610120.00  4200340.00  54.81
SO LOCATION  ON_0717  VOLUME  610120.00  4200360.00  51.82
SO LOCATION  ON_0718  VOLUME  610120.00  4200380.00  49.35
SO LOCATION  ON_0719  VOLUME  610120.00  4200400.00  48.60
SO LOCATION  ON_0720  VOLUME  610120.00  4200420.00  47.90
```

Modeled Onsite Sources

```
SO LOCATION  ON_0721  VOLUME  610120.00  4200440.00  47.22
SO LOCATION  ON_0722  VOLUME  610120.00  4200460.00  46.45
SO LOCATION  ON_0723  VOLUME  610120.00  4200480.00  45.69
SO LOCATION  ON_0724  VOLUME  610120.00  4200500.00  45.18
SO LOCATION  ON_0725  VOLUME  610120.00  4200520.00  44.31
SO LOCATION  ON_0726  VOLUME  610120.00  4200540.00  43.53
SO LOCATION  ON_0727  VOLUME  610120.00  4200560.00  40.84
SO LOCATION  ON_0728  VOLUME  610120.00  4200580.00  43.70
SO LOCATION  ON_0729  VOLUME  610120.00  4200600.00  47.30
SO LOCATION  ON_0730  VOLUME  610120.00  4200620.00  46.96
SO LOCATION  ON_0731  VOLUME  610120.00  4200640.00  45.72
SO LOCATION  ON_0732  VOLUME  610120.00  4200660.00  45.12
SO LOCATION  ON_0733  VOLUME  610120.00  4200680.00  44.77
SO LOCATION  ON_0734  VOLUME  610140.00  4199880.00  56.26
SO LOCATION  ON_0735  VOLUME  610140.00  4199900.00  57.44
SO LOCATION  ON_0736  VOLUME  610140.00  4199920.00  58.65
SO LOCATION  ON_0737  VOLUME  610140.00  4199940.00  59.85
SO LOCATION  ON_0738  VOLUME  610140.00  4199960.00  61.14
SO LOCATION  ON_0739  VOLUME  610140.00  4199980.00  62.57
SO LOCATION  ON_0740  VOLUME  610140.00  4200000.00  64.37
SO LOCATION  ON_0741  VOLUME  610140.00  4200020.00  66.42
SO LOCATION  ON_0742  VOLUME  610140.00  4200040.00  68.09
SO LOCATION  ON_0743  VOLUME  610140.00  4200060.00  69.17
SO LOCATION  ON_0744  VOLUME  610140.00  4200080.00  70.22
```

Modeled Onsite Sources

SO LOCATION ON_0745 VOLUME 610140.00 4200100.00 70.51

SO LOCATION ON_0746 VOLUME 610140.00 4200120.00 69.98

SO LOCATION ON_0747 VOLUME 610140.00 4200140.00 69.12

SO LOCATION ON_0748 VOLUME 610140.00 4200160.00 68.10

SO LOCATION ON_0749 VOLUME 610140.00 4200180.00 66.38

SO LOCATION ON_0750 VOLUME 610140.00 4200200.00 64.20

SO LOCATION ON_0751 VOLUME 610140.00 4200220.00 62.37

SO LOCATION ON_0752 VOLUME 610140.00 4200240.00 60.94

SO LOCATION ON_0753 VOLUME 610140.00 4200260.00 59.69

SO LOCATION ON_0754 VOLUME 610140.00 4200280.00 58.44

SO LOCATION ON_0755 VOLUME 610140.00 4200300.00 57.08

SO LOCATION ON_0756 VOLUME 610140.00 4200320.00 55.37

SO LOCATION ON_0757 VOLUME 610140.00 4200340.00 53.06

SO LOCATION ON_0758 VOLUME 610140.00 4200360.00 50.44

SO LOCATION ON_0759 VOLUME 610140.00 4200380.00 49.04

SO LOCATION ON_0760 VOLUME 610140.00 4200400.00 48.33

SO LOCATION ON_0761 VOLUME 610140.00 4200420.00 47.70

SO LOCATION ON_0762 VOLUME 610140.00 4200440.00 47.03

SO LOCATION ON_0763 VOLUME 610140.00 4200460.00 46.33

SO LOCATION ON_0764 VOLUME 610140.00 4200480.00 45.68

SO LOCATION ON_0765 VOLUME 610140.00 4200500.00 45.19

SO LOCATION ON_0766 VOLUME 610140.00 4200520.00 44.60

SO LOCATION ON_0767 VOLUME 610140.00 4200540.00 44.04

SO LOCATION ON_0768 VOLUME 610140.00 4200560.00 42.03

Modeled Onsite Sources

SO LOCATION ON_0769 VOLUME 610140.00 4200580.00 41.44

SO LOCATION ON_0770 VOLUME 610140.00 4200600.00 44.48

SO LOCATION ON_0771 VOLUME 610140.00 4200620.00 46.96

SO LOCATION ON_0772 VOLUME 610140.00 4200640.00 46.92

SO LOCATION ON_0773 VOLUME 610140.00 4200660.00 45.66

SO LOCATION ON_0774 VOLUME 610140.00 4200680.00 44.61

SO LOCATION ON_0775 VOLUME 610160.00 4199880.00 58.55

SO LOCATION ON_0776 VOLUME 610160.00 4199900.00 59.75

SO LOCATION ON_0777 VOLUME 610160.00 4199920.00 60.96

SO LOCATION ON_0778 VOLUME 610160.00 4199940.00 62.02

SO LOCATION ON_0779 VOLUME 610160.00 4199960.00 63.11

SO LOCATION ON_0780 VOLUME 610160.00 4199980.00 64.30

SO LOCATION ON_0781 VOLUME 610160.00 4200000.00 66.18

SO LOCATION ON_0782 VOLUME 610160.00 4200020.00 68.05

SO LOCATION ON_0783 VOLUME 610160.00 4200040.00 69.16

SO LOCATION ON_0784 VOLUME 610160.00 4200060.00 69.95

SO LOCATION ON_0785 VOLUME 610160.00 4200080.00 69.79

SO LOCATION ON_0786 VOLUME 610160.00 4200100.00 69.27

SO LOCATION ON_0787 VOLUME 610160.00 4200120.00 68.75

SO LOCATION ON_0788 VOLUME 610160.00 4200140.00 68.02

SO LOCATION ON_0789 VOLUME 610160.00 4200160.00 66.62

SO LOCATION ON_0790 VOLUME 610160.00 4200180.00 64.59

SO LOCATION ON_0791 VOLUME 610160.00 4200200.00 62.36

SO LOCATION ON_0792 VOLUME 610160.00 4200220.00 60.45

Modeled Onsite Sources

SO LOCATION ON_0793 VOLUME 610160.00 4200240.00 58.92

SO LOCATION ON_0794 VOLUME 610160.00 4200260.00 57.48

SO LOCATION ON_0795 VOLUME 610160.00 4200280.00 56.14

SO LOCATION ON_0796 VOLUME 610160.00 4200300.00 54.94

SO LOCATION ON_0797 VOLUME 610160.00 4200320.00 53.51

SO LOCATION ON_0798 VOLUME 610160.00 4200340.00 51.43

SO LOCATION ON_0799 VOLUME 610160.00 4200360.00 49.49

SO LOCATION ON_0800 VOLUME 610160.00 4200380.00 48.71

SO LOCATION ON_0801 VOLUME 610160.00 4200400.00 48.06

SO LOCATION ON_0802 VOLUME 610160.00 4200420.00 47.44

SO LOCATION ON_0803 VOLUME 610160.00 4200440.00 46.77

SO LOCATION ON_0804 VOLUME 610160.00 4200460.00 46.05

SO LOCATION ON_0805 VOLUME 610160.00 4200480.00 45.61

SO LOCATION ON_0806 VOLUME 610160.00 4200500.00 45.18

SO LOCATION ON_0807 VOLUME 610160.00 4200520.00 44.73

SO LOCATION ON_0808 VOLUME 610160.00 4200540.00 44.22

SO LOCATION ON_0809 VOLUME 610160.00 4200560.00 43.51

SO LOCATION ON_0810 VOLUME 610160.00 4200580.00 41.64

SO LOCATION ON_0811 VOLUME 610160.00 4200600.00 41.69

SO LOCATION ON_0812 VOLUME 610160.00 4200620.00 44.07

SO LOCATION ON_0813 VOLUME 610160.00 4200640.00 45.35

SO LOCATION ON_0814 VOLUME 610160.00 4200660.00 44.78

SO LOCATION ON_0815 VOLUME 610160.00 4200680.00 43.79

SO LOCATION ON_0816 VOLUME 610180.00 4199880.00 60.80

Modeled Onsite Sources

SO LOCATION ON_0817 VOLUME 610180.00 4199900.00 62.08

SO LOCATION ON_0818 VOLUME 610180.00 4199920.00 63.27

SO LOCATION ON_0819 VOLUME 610180.00 4199940.00 64.44

SO LOCATION ON_0820 VOLUME 610180.00 4199960.00 65.26

SO LOCATION ON_0821 VOLUME 610180.00 4199980.00 65.80

SO LOCATION ON_0822 VOLUME 610180.00 4200000.00 66.79

SO LOCATION ON_0823 VOLUME 610180.00 4200020.00 67.90

SO LOCATION ON_0824 VOLUME 610180.00 4200040.00 68.70

SO LOCATION ON_0825 VOLUME 610180.00 4200060.00 68.72

SO LOCATION ON_0826 VOLUME 610180.00 4200080.00 68.36

SO LOCATION ON_0827 VOLUME 610180.00 4200100.00 67.72

SO LOCATION ON_0828 VOLUME 610180.00 4200120.00 67.08

SO LOCATION ON_0829 VOLUME 610180.00 4200140.00 66.04

SO LOCATION ON_0830 VOLUME 610180.00 4200160.00 64.63

SO LOCATION ON_0831 VOLUME 610180.00 4200180.00 63.00

SO LOCATION ON_0832 VOLUME 610180.00 4200200.00 60.90

SO LOCATION ON_0833 VOLUME 610180.00 4200220.00 58.79

SO LOCATION ON_0834 VOLUME 610180.00 4200240.00 56.80

SO LOCATION ON_0835 VOLUME 610180.00 4200260.00 55.37

SO LOCATION ON_0836 VOLUME 610180.00 4200280.00 54.34

SO LOCATION ON_0837 VOLUME 610180.00 4200300.00 53.25

SO LOCATION ON_0838 VOLUME 610180.00 4200320.00 51.89

SO LOCATION ON_0839 VOLUME 610180.00 4200340.00 50.24

SO LOCATION ON_0840 VOLUME 610180.00 4200360.00 49.05

Modeled Onsite Sources

```
SO LOCATION  ON_0841  VOLUME  610180.00  4200380.00  48.37
SO LOCATION  ON_0842  VOLUME  610180.00  4200400.00  47.73
SO LOCATION  ON_0843  VOLUME  610180.00  4200420.00  47.07
SO LOCATION  ON_0844  VOLUME  610180.00  4200440.00  46.37
SO LOCATION  ON_0845  VOLUME  610180.00  4200460.00  45.80
SO LOCATION  ON_0846  VOLUME  610180.00  4200480.00  45.38
SO LOCATION  ON_0847  VOLUME  610180.00  4200500.00  44.91
SO LOCATION  ON_0848  VOLUME  610180.00  4200520.00  44.51
SO LOCATION  ON_0849  VOLUME  610180.00  4200540.00  44.05
SO LOCATION  ON_0850  VOLUME  610180.00  4200560.00  43.46
SO LOCATION  ON_0851  VOLUME  610180.00  4200580.00  42.71
SO LOCATION  ON_0852  VOLUME  610180.00  4200600.00  40.89
SO LOCATION  ON_0853  VOLUME  610180.00  4200620.00  41.94
SO LOCATION  ON_0854  VOLUME  610180.00  4200640.00  43.43
SO LOCATION  ON_0855  VOLUME  610180.00  4200660.00  43.42
SO LOCATION  ON_0856  VOLUME  610180.00  4200680.00  43.31
SO LOCATION  ON_0857  VOLUME  610200.00  4199880.00  63.55
SO LOCATION  ON_0858  VOLUME  610200.00  4199900.00  65.09
SO LOCATION  ON_0859  VOLUME  610200.00  4199920.00  66.25
SO LOCATION  ON_0860  VOLUME  610200.00  4199940.00  66.82
SO LOCATION  ON_0861  VOLUME  610200.00  4199960.00  66.81
SO LOCATION  ON_0862  VOLUME  610200.00  4199980.00  66.35
SO LOCATION  ON_0863  VOLUME  610200.00  4200000.00  66.63
SO LOCATION  ON_0864  VOLUME  610200.00  4200020.00  66.56
```

Modeled Onsite Sources

```
SO LOCATION  ON_0865  VOLUME  610200.00  4200040.00  66.48
SO LOCATION  ON_0866  VOLUME  610200.00  4200060.00  66.20
SO LOCATION  ON_0867  VOLUME  610200.00  4200080.00  65.60
SO LOCATION  ON_0868  VOLUME  610200.00  4200100.00  65.04
SO LOCATION  ON_0869  VOLUME  610200.00  4200120.00  64.52
SO LOCATION  ON_0870  VOLUME  610200.00  4200140.00  63.72
SO LOCATION  ON_0871  VOLUME  610200.00  4200160.00  62.74
SO LOCATION  ON_0872  VOLUME  610200.00  4200180.00  61.25
SO LOCATION  ON_0873  VOLUME  610200.00  4200200.00  59.30
SO LOCATION  ON_0874  VOLUME  610200.00  4200220.00  57.13
SO LOCATION  ON_0875  VOLUME  610200.00  4200240.00  55.17
SO LOCATION  ON_0876  VOLUME  610200.00  4200260.00  53.84
SO LOCATION  ON_0877  VOLUME  610200.00  4200280.00  52.80
SO LOCATION  ON_0878  VOLUME  610200.00  4200300.00  51.80
SO LOCATION  ON_0879  VOLUME  610200.00  4200320.00  50.57
SO LOCATION  ON_0880  VOLUME  610200.00  4200340.00  49.31
SO LOCATION  ON_0881  VOLUME  610200.00  4200360.00  48.67
SO LOCATION  ON_0882  VOLUME  610200.00  4200380.00  47.97
SO LOCATION  ON_0883  VOLUME  610200.00  4200400.00  47.34
SO LOCATION  ON_0884  VOLUME  610200.00  4200420.00  46.65
SO LOCATION  ON_0885  VOLUME  610200.00  4200440.00  46.00
SO LOCATION  ON_0886  VOLUME  610200.00  4200460.00  45.48
SO LOCATION  ON_0887  VOLUME  610200.00  4200480.00  45.02
SO LOCATION  ON_0888  VOLUME  610200.00  4200500.00  44.63
```

Modeled Onsite Sources

```
SO LOCATION  ON_0889  VOLUME  610200.00  4200520.00  44.19
SO LOCATION  ON_0890  VOLUME  610200.00  4200540.00  43.67
SO LOCATION  ON_0891  VOLUME  610200.00  4200560.00  43.29
SO LOCATION  ON_0892  VOLUME  610200.00  4200580.00  42.79
SO LOCATION  ON_0893  VOLUME  610200.00  4200600.00  42.18
SO LOCATION  ON_0894  VOLUME  610200.00  4200620.00  40.66
SO LOCATION  ON_0895  VOLUME  610200.00  4200640.00  42.08
SO LOCATION  ON_0896  VOLUME  610200.00  4200660.00  42.59
SO LOCATION  ON_0897  VOLUME  610200.00  4200680.00  42.87
SO LOCATION  ON_0898  VOLUME  610220.00  4199880.00  66.65
SO LOCATION  ON_0899  VOLUME  610220.00  4199900.00  68.02
SO LOCATION  ON_0900  VOLUME  610220.00  4199920.00  68.53
SO LOCATION  ON_0901  VOLUME  610220.00  4199940.00  67.95
SO LOCATION  ON_0902  VOLUME  610220.00  4199960.00  66.95
SO LOCATION  ON_0903  VOLUME  610220.00  4199980.00  65.87
SO LOCATION  ON_0904  VOLUME  610220.00  4200000.00  64.66
SO LOCATION  ON_0905  VOLUME  610220.00  4200020.00  63.61
SO LOCATION  ON_0906  VOLUME  610220.00  4200040.00  63.02
SO LOCATION  ON_0907  VOLUME  610220.00  4200060.00  62.28
SO LOCATION  ON_0908  VOLUME  610220.00  4200080.00  61.99
SO LOCATION  ON_0909  VOLUME  610220.00  4200100.00  62.07
SO LOCATION  ON_0910  VOLUME  610220.00  4200120.00  62.02
SO LOCATION  ON_0911  VOLUME  610220.00  4200140.00  61.41
SO LOCATION  ON_0912  VOLUME  610220.00  4200160.00  60.46
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Modeled Onsite Sources

```
SO LOCATION  ON_0913  VOLUME  610220.00  4200180.00  59.11
SO LOCATION  ON_0914  VOLUME  610220.00  4200200.00  57.47
SO LOCATION  ON_0915  VOLUME  610220.00  4200220.00  55.60
SO LOCATION  ON_0916  VOLUME  610220.00  4200240.00  53.80
SO LOCATION  ON_0917  VOLUME  610220.00  4200260.00  52.29
SO LOCATION  ON_0918  VOLUME  610220.00  4200280.00  51.21
SO LOCATION  ON_0919  VOLUME  610220.00  4200300.00  50.36
SO LOCATION  ON_0920  VOLUME  610220.00  4200320.00  49.45
SO LOCATION  ON_0921  VOLUME  610220.00  4200340.00  48.82
SO LOCATION  ON_0922  VOLUME  610220.00  4200360.00  48.17
SO LOCATION  ON_0923  VOLUME  610220.00  4200380.00  47.51
SO LOCATION  ON_0924  VOLUME  610220.00  4200400.00  46.85
SO LOCATION  ON_0925  VOLUME  610220.00  4200420.00  46.20
SO LOCATION  ON_0926  VOLUME  610220.00  4200440.00  45.61
SO LOCATION  ON_0927  VOLUME  610220.00  4200460.00  45.08
SO LOCATION  ON_0928  VOLUME  610220.00  4200480.00  44.63
SO LOCATION  ON_0929  VOLUME  610220.00  4200500.00  44.17
SO LOCATION  ON_0930  VOLUME  610220.00  4200520.00  43.72
SO LOCATION  ON_0931  VOLUME  610220.00  4200540.00  43.36
SO LOCATION  ON_0932  VOLUME  610220.00  4200560.00  43.14
SO LOCATION  ON_0933  VOLUME  610220.00  4200580.00  42.78
SO LOCATION  ON_0934  VOLUME  610220.00  4200600.00  42.36
SO LOCATION  ON_0935  VOLUME  610220.00  4200620.00  41.85
SO LOCATION  ON_0936  VOLUME  610220.00  4200640.00  40.53
```

Modeled Onsite Sources

```
SO LOCATION  ON_0937  VOLUME  610220.00  4200660.00  42.06
SO LOCATION  ON_0938  VOLUME  610220.00  4200680.00  42.43
SO LOCATION  ON_0939  VOLUME  610240.00  4199880.00  68.68
SO LOCATION  ON_0940  VOLUME  610240.00  4199900.00  69.41
SO LOCATION  ON_0941  VOLUME  610240.00  4199920.00  68.79
SO LOCATION  ON_0942  VOLUME  610240.00  4199940.00  67.79
SO LOCATION  ON_0943  VOLUME  610240.00  4199960.00  65.81
SO LOCATION  ON_0944  VOLUME  610240.00  4199980.00  63.96
SO LOCATION  ON_0945  VOLUME  610240.00  4200000.00  62.26
SO LOCATION  ON_0946  VOLUME  610240.00  4200020.00  61.02
SO LOCATION  ON_0947  VOLUME  610240.00  4200040.00  60.06
SO LOCATION  ON_0948  VOLUME  610240.00  4200060.00  59.20
SO LOCATION  ON_0949  VOLUME  610240.00  4200080.00  58.91
SO LOCATION  ON_0950  VOLUME  610240.00  4200100.00  59.23
SO LOCATION  ON_0951  VOLUME  610240.00  4200120.00  59.24
SO LOCATION  ON_0952  VOLUME  610240.00  4200140.00  58.74
SO LOCATION  ON_0953  VOLUME  610240.00  4200160.00  57.96
SO LOCATION  ON_0954  VOLUME  610240.00  4200180.00  57.03
SO LOCATION  ON_0955  VOLUME  610240.00  4200200.00  55.70
SO LOCATION  ON_0956  VOLUME  610240.00  4200220.00  53.96
SO LOCATION  ON_0957  VOLUME  610240.00  4200240.00  52.10
SO LOCATION  ON_0958  VOLUME  610240.00  4200260.00  50.47
SO LOCATION  ON_0959  VOLUME  610240.00  4200280.00  49.55
SO LOCATION  ON_0960  VOLUME  610240.00  4200300.00  49.12
```

Modeled Onsite Sources

```
SO LOCATION  ON_0961  VOLUME  610240.00  4200320.00  48.76
SO LOCATION  ON_0962  VOLUME  610240.00  4200340.00  48.22
SO LOCATION  ON_0963  VOLUME  610240.00  4200360.00  47.61
SO LOCATION  ON_0964  VOLUME  610240.00  4200380.00  47.01
SO LOCATION  ON_0965  VOLUME  610240.00  4200400.00  46.31
SO LOCATION  ON_0966  VOLUME  610240.00  4200420.00  45.78
SO LOCATION  ON_0967  VOLUME  610240.00  4200440.00  45.18
SO LOCATION  ON_0968  VOLUME  610240.00  4200460.00  44.62
SO LOCATION  ON_0969  VOLUME  610240.00  4200480.00  44.15
SO LOCATION  ON_0970  VOLUME  610240.00  4200500.00  43.66
SO LOCATION  ON_0971  VOLUME  610240.00  4200520.00  43.35
SO LOCATION  ON_0972  VOLUME  610240.00  4200540.00  43.23
SO LOCATION  ON_0973  VOLUME  610240.00  4200560.00  43.04
SO LOCATION  ON_0974  VOLUME  610240.00  4200580.00  42.75
SO LOCATION  ON_0975  VOLUME  610240.00  4200600.00  42.42
SO LOCATION  ON_0976  VOLUME  610240.00  4200620.00  42.26
SO LOCATION  ON_0977  VOLUME  610240.00  4200640.00  41.68
SO LOCATION  ON_0978  VOLUME  610240.00  4200660.00  40.91
SO LOCATION  ON_0979  VOLUME  610240.00  4200680.00  42.25
SO LOCATION  ON_0980  VOLUME  610260.00  4199880.00  69.39
SO LOCATION  ON_0981  VOLUME  610260.00  4199900.00  68.82
SO LOCATION  ON_0982  VOLUME  610260.00  4199920.00  67.97
SO LOCATION  ON_0983  VOLUME  610260.00  4199940.00  66.47
SO LOCATION  ON_0984  VOLUME  610260.00  4199960.00  64.56
```

Modeled Onsite Sources

```
SO LOCATION  ON_0985  VOLUME  610260.00  4199980.00  62.66
SO LOCATION  ON_0986  VOLUME  610260.00  4200000.00  60.75
SO LOCATION  ON_0987  VOLUME  610260.00  4200020.00  58.90
SO LOCATION  ON_0988  VOLUME  610260.00  4200040.00  57.17
SO LOCATION  ON_0989  VOLUME  610260.00  4200060.00  55.84
SO LOCATION  ON_0990  VOLUME  610260.00  4200080.00  55.71
SO LOCATION  ON_0991  VOLUME  610260.00  4200100.00  56.56
SO LOCATION  ON_0992  VOLUME  610260.00  4200120.00  56.63
SO LOCATION  ON_0993  VOLUME  610260.00  4200140.00  56.24
SO LOCATION  ON_0994  VOLUME  610260.00  4200160.00  55.67
SO LOCATION  ON_0995  VOLUME  610260.00  4200180.00  54.75
SO LOCATION  ON_0996  VOLUME  610260.00  4200200.00  53.49
SO LOCATION  ON_0997  VOLUME  610260.00  4200220.00  51.86
SO LOCATION  ON_0998  VOLUME  610260.00  4200240.00  50.24
SO LOCATION  ON_0999  VOLUME  610260.00  4200260.00  49.18
SO LOCATION  ON_1000  VOLUME  610260.00  4200280.00  48.77
SO LOCATION  ON_1001  VOLUME  610260.00  4200300.00  48.43
SO LOCATION  ON_1002  VOLUME  610260.00  4200320.00  48.06
SO LOCATION  ON_1003  VOLUME  610260.00  4200340.00  47.58
SO LOCATION  ON_1004  VOLUME  610260.00  4200360.00  47.02
SO LOCATION  ON_1005  VOLUME  610260.00  4200380.00  46.47
SO LOCATION  ON_1006  VOLUME  610260.00  4200400.00  45.88
SO LOCATION  ON_1007  VOLUME  610260.00  4200420.00  45.27
SO LOCATION  ON_1008  VOLUME  610260.00  4200440.00  44.73
```

Modeled Onsite Sources

```
SO LOCATION  ON_1009  VOLUME  610260.00  4200460.00  44.15
SO LOCATION  ON_1010  VOLUME  610260.00  4200480.00  43.64
SO LOCATION  ON_1011  VOLUME  610260.00  4200500.00  43.32
SO LOCATION  ON_1012  VOLUME  610260.00  4200520.00  43.21
SO LOCATION  ON_1013  VOLUME  610260.00  4200540.00  43.11
SO LOCATION  ON_1014  VOLUME  610260.00  4200560.00  42.94
SO LOCATION  ON_1015  VOLUME  610260.00  4200580.00  42.70
SO LOCATION  ON_1016  VOLUME  610260.00  4200600.00  42.50
SO LOCATION  ON_1017  VOLUME  610260.00  4200620.00  42.29
SO LOCATION  ON_1018  VOLUME  610260.00  4200640.00  42.15
SO LOCATION  ON_1019  VOLUME  610260.00  4200660.00  40.82
SO LOCATION  ON_1020  VOLUME  610260.00  4200680.00  42.26
SO LOCATION  ON_1021  VOLUME  610280.00  4199900.00  67.82
SO LOCATION  ON_1022  VOLUME  610280.00  4199920.00  66.48
SO LOCATION  ON_1023  VOLUME  610280.00  4199940.00  64.89
SO LOCATION  ON_1024  VOLUME  610280.00  4199960.00  63.14
SO LOCATION  ON_1025  VOLUME  610280.00  4199980.00  61.30
SO LOCATION  ON_1026  VOLUME  610280.00  4200000.00  59.16
SO LOCATION  ON_1027  VOLUME  610280.00  4200020.00  56.88
SO LOCATION  ON_1028  VOLUME  610280.00  4200040.00  54.97
SO LOCATION  ON_1029  VOLUME  610280.00  4200060.00  54.10
SO LOCATION  ON_1030  VOLUME  610280.00  4200080.00  53.92
SO LOCATION  ON_1031  VOLUME  610280.00  4200100.00  54.07
SO LOCATION  ON_1032  VOLUME  610280.00  4200120.00  54.05
```

Modeled Onsite Sources

```
SO LOCATION  ON_1033  VOLUME  610280.00  4200140.00  53.63
SO LOCATION  ON_1034  VOLUME  610280.00  4200160.00  53.02
SO LOCATION  ON_1035  VOLUME  610280.00  4200180.00  52.14
SO LOCATION  ON_1036  VOLUME  610280.00  4200200.00  50.98
SO LOCATION  ON_1037  VOLUME  610280.00  4200220.00  49.78
SO LOCATION  ON_1038  VOLUME  610280.00  4200240.00  49.09
SO LOCATION  ON_1039  VOLUME  610280.00  4200260.00  48.60
SO LOCATION  ON_1040  VOLUME  610280.00  4200280.00  48.17
SO LOCATION  ON_1041  VOLUME  610280.00  4200300.00  47.78
SO LOCATION  ON_1042  VOLUME  610280.00  4200320.00  47.36
SO LOCATION  ON_1043  VOLUME  610280.00  4200340.00  46.96
SO LOCATION  ON_1044  VOLUME  610280.00  4200360.00  46.42
SO LOCATION  ON_1045  VOLUME  610280.00  4200380.00  45.92
SO LOCATION  ON_1046  VOLUME  610280.00  4200400.00  45.34
SO LOCATION  ON_1047  VOLUME  610280.00  4200420.00  44.82
SO LOCATION  ON_1048  VOLUME  610280.00  4200440.00  44.28
SO LOCATION  ON_1049  VOLUME  610280.00  4200460.00  43.67
SO LOCATION  ON_1050  VOLUME  610280.00  4200480.00  43.32
SO LOCATION  ON_1051  VOLUME  610280.00  4200500.00  43.21
SO LOCATION  ON_1052  VOLUME  610280.00  4200520.00  43.11
SO LOCATION  ON_1053  VOLUME  610280.00  4200540.00  42.99
SO LOCATION  ON_1054  VOLUME  610280.00  4200560.00  42.83
SO LOCATION  ON_1055  VOLUME  610280.00  4200580.00  42.64
SO LOCATION  ON_1056  VOLUME  610280.00  4200600.00  42.41
```

Modeled Onsite Sources

```
SO LOCATION  ON_1057  VOLUME  610280.00  4200620.00  42.29
SO LOCATION  ON_1058  VOLUME  610280.00  4200640.00  42.09
SO LOCATION  ON_1059  VOLUME  610280.00  4200660.00  40.91
SO LOCATION  ON_1060  VOLUME  610280.00  4200680.00  42.23
SO LOCATION  ON_1061  VOLUME  610300.00  4199900.00  65.96
SO LOCATION  ON_1062  VOLUME  610300.00  4199920.00  64.67
SO LOCATION  ON_1063  VOLUME  610300.00  4199940.00  63.22
SO LOCATION  ON_1064  VOLUME  610300.00  4199960.00  61.59
SO LOCATION  ON_1065  VOLUME  610300.00  4199980.00  59.71
SO LOCATION  ON_1066  VOLUME  610300.00  4200000.00  57.71
SO LOCATION  ON_1067  VOLUME  610300.00  4200020.00  55.56
SO LOCATION  ON_1068  VOLUME  610300.00  4200040.00  53.79
SO LOCATION  ON_1069  VOLUME  610300.00  4200060.00  52.39
SO LOCATION  ON_1070  VOLUME  610300.00  4200080.00  51.45
SO LOCATION  ON_1071  VOLUME  610300.00  4200100.00  51.33
SO LOCATION  ON_1072  VOLUME  610300.00  4200120.00  51.24
SO LOCATION  ON_1073  VOLUME  610300.00  4200140.00  50.95
SO LOCATION  ON_1074  VOLUME  610300.00  4200160.00  50.47
SO LOCATION  ON_1075  VOLUME  610300.00  4200180.00  49.76
SO LOCATION  ON_1076  VOLUME  610300.00  4200200.00  49.21
SO LOCATION  ON_1077  VOLUME  610300.00  4200220.00  48.81
SO LOCATION  ON_1078  VOLUME  610300.00  4200240.00  48.39
SO LOCATION  ON_1079  VOLUME  610300.00  4200260.00  47.97
SO LOCATION  ON_1080  VOLUME  610300.00  4200280.00  47.56
```

Modeled Onsite Sources

```
SO LOCATION  ON_1081  VOLUME  610300.00  4200300.00  47.16
SO LOCATION  ON_1082  VOLUME  610300.00  4200320.00  46.76
SO LOCATION  ON_1083  VOLUME  610300.00  4200340.00  46.28
SO LOCATION  ON_1084  VOLUME  610300.00  4200360.00  45.82
SO LOCATION  ON_1085  VOLUME  610300.00  4200380.00  45.34
SO LOCATION  ON_1086  VOLUME  610300.00  4200400.00  44.84
SO LOCATION  ON_1087  VOLUME  610300.00  4200420.00  44.35
SO LOCATION  ON_1088  VOLUME  610300.00  4200440.00  43.79
SO LOCATION  ON_1089  VOLUME  610300.00  4200460.00  43.37
SO LOCATION  ON_1090  VOLUME  610300.00  4200480.00  43.23
SO LOCATION  ON_1091  VOLUME  610300.00  4200500.00  43.11
SO LOCATION  ON_1092  VOLUME  610300.00  4200520.00  43.01
SO LOCATION  ON_1093  VOLUME  610300.00  4200540.00  42.88
SO LOCATION  ON_1094  VOLUME  610300.00  4200560.00  42.73
SO LOCATION  ON_1095  VOLUME  610300.00  4200580.00  42.59
SO LOCATION  ON_1096  VOLUME  610300.00  4200600.00  42.44
SO LOCATION  ON_1097  VOLUME  610300.00  4200620.00  42.24
SO LOCATION  ON_1098  VOLUME  610300.00  4200640.00  42.03
SO LOCATION  ON_1099  VOLUME  610300.00  4200660.00  40.67
SO LOCATION  ON_1100  VOLUME  610300.00  4200680.00  42.31
SO LOCATION  ON_1101  VOLUME  610320.00  4199900.00  63.99
SO LOCATION  ON_1102  VOLUME  610320.00  4199920.00  62.81
SO LOCATION  ON_1103  VOLUME  610320.00  4199940.00  61.44
SO LOCATION  ON_1104  VOLUME  610320.00  4199960.00  59.84
```

Modeled Onsite Sources

```
SO LOCATION  ON_1105  VOLUME  610320.00  4199980.00  58.14
SO LOCATION  ON_1106  VOLUME  610320.00  4200000.00  56.26
SO LOCATION  ON_1107  VOLUME  610320.00  4200020.00  54.34
SO LOCATION  ON_1108  VOLUME  610320.00  4200040.00  52.51
SO LOCATION  ON_1109  VOLUME  610320.00  4200060.00  50.64
SO LOCATION  ON_1110  VOLUME  610320.00  4200080.00  49.29
SO LOCATION  ON_1111  VOLUME  610320.00  4200100.00  49.09
SO LOCATION  ON_1112  VOLUME  610320.00  4200120.00  49.05
SO LOCATION  ON_1113  VOLUME  610320.00  4200140.00  48.81
SO LOCATION  ON_1114  VOLUME  610320.00  4200160.00  48.54
SO LOCATION  ON_1115  VOLUME  610320.00  4200180.00  48.33
SO LOCATION  ON_1116  VOLUME  610320.00  4200200.00  48.12
SO LOCATION  ON_1117  VOLUME  610320.00  4200220.00  47.95
SO LOCATION  ON_1118  VOLUME  610320.00  4200240.00  47.70
SO LOCATION  ON_1119  VOLUME  610320.00  4200380.00  44.76
SO LOCATION  ON_1120  VOLUME  610320.00  4200400.00  44.29
SO LOCATION  ON_1121  VOLUME  610320.00  4200420.00  43.85
SO LOCATION  ON_1122  VOLUME  610320.00  4200440.00  43.45
SO LOCATION  ON_1123  VOLUME  610320.00  4200460.00  43.26
SO LOCATION  ON_1124  VOLUME  610320.00  4200480.00  43.16
SO LOCATION  ON_1125  VOLUME  610320.00  4200500.00  43.04
SO LOCATION  ON_1126  VOLUME  610320.00  4200520.00  42.91
SO LOCATION  ON_1127  VOLUME  610320.00  4200540.00  42.84
SO LOCATION  ON_1128  VOLUME  610320.00  4200560.00  42.72
```

Modeled Onsite Sources

```
SO LOCATION  ON_1129  VOLUME  610320.00  4200580.00  42.53
SO LOCATION  ON_1130  VOLUME  610320.00  4200600.00  42.39
SO LOCATION  ON_1131  VOLUME  610320.00  4200620.00  42.19
SO LOCATION  ON_1132  VOLUME  610320.00  4200640.00  41.97
SO LOCATION  ON_1133  VOLUME  610320.00  4200660.00  39.85
SO LOCATION  ON_1134  VOLUME  610320.00  4200680.00  42.27
SO LOCATION  ON_1135  VOLUME  610340.00  4199900.00  62.00
SO LOCATION  ON_1136  VOLUME  610340.00  4199920.00  60.86
SO LOCATION  ON_1137  VOLUME  610340.00  4199940.00  59.37
SO LOCATION  ON_1138  VOLUME  610340.00  4199960.00  57.92
SO LOCATION  ON_1139  VOLUME  610340.00  4199980.00  56.48
SO LOCATION  ON_1140  VOLUME  610340.00  4200000.00  54.77
SO LOCATION  ON_1141  VOLUME  610340.00  4200020.00  52.90
SO LOCATION  ON_1142  VOLUME  610340.00  4200040.00  51.11
SO LOCATION  ON_1143  VOLUME  610340.00  4200060.00  49.49
SO LOCATION  ON_1144  VOLUME  610340.00  4200080.00  48.41
SO LOCATION  ON_1145  VOLUME  610340.00  4200100.00  47.88
SO LOCATION  ON_1146  VOLUME  610340.00  4200120.00  47.55
SO LOCATION  ON_1147  VOLUME  610340.00  4200140.00  47.19
SO LOCATION  ON_1148  VOLUME  610340.00  4200160.00  46.82
SO LOCATION  ON_1149  VOLUME  610340.00  4200180.00  46.59
SO LOCATION  ON_1150  VOLUME  610340.00  4200200.00  46.63
SO LOCATION  ON_1151  VOLUME  610340.00  4200220.00  46.65
SO LOCATION  ON_1152  VOLUME  610340.00  4200240.00  46.94
```

Modeled Onsite Sources

```
SO LOCATION  ON_1153  VOLUME  610340.00  4200440.00  43.25
SO LOCATION  ON_1154  VOLUME  610340.00  4200460.00  43.16
SO LOCATION  ON_1155  VOLUME  610340.00  4200480.00  43.06
SO LOCATION  ON_1156  VOLUME  610340.00  4200500.00  42.96
SO LOCATION  ON_1157  VOLUME  610340.00  4200520.00  42.86
SO LOCATION  ON_1158  VOLUME  610340.00  4200540.00  42.76
SO LOCATION  ON_1159  VOLUME  610340.00  4200560.00  42.61
SO LOCATION  ON_1160  VOLUME  610340.00  4200580.00  42.49
SO LOCATION  ON_1161  VOLUME  610340.00  4200600.00  42.33
SO LOCATION  ON_1162  VOLUME  610340.00  4200620.00  42.19
SO LOCATION  ON_1163  VOLUME  610340.00  4200640.00  42.02
SO LOCATION  ON_1164  VOLUME  610340.00  4200660.00  40.22
SO LOCATION  ON_1165  VOLUME  610340.00  4200680.00  41.83
SO LOCATION  ON_1166  VOLUME  610360.00  4199900.00  59.73
SO LOCATION  ON_1167  VOLUME  610360.00  4199920.00  58.49
SO LOCATION  ON_1168  VOLUME  610360.00  4199940.00  57.17
SO LOCATION  ON_1169  VOLUME  610360.00  4199960.00  55.88
SO LOCATION  ON_1170  VOLUME  610360.00  4199980.00  54.64
SO LOCATION  ON_1171  VOLUME  610360.00  4200000.00  52.98
SO LOCATION  ON_1172  VOLUME  610360.00  4200020.00  51.27
SO LOCATION  ON_1173  VOLUME  610360.00  4200040.00  49.63
SO LOCATION  ON_1174  VOLUME  610360.00  4200060.00  48.52
SO LOCATION  ON_1175  VOLUME  610360.00  4200080.00  47.49
SO LOCATION  ON_1176  VOLUME  610360.00  4200100.00  46.70
```

Modeled Onsite Sources

```
SO LOCATION  ON_1177  VOLUME  610360.00  4200120.00  45.83
SO LOCATION  ON_1178  VOLUME  610360.00  4200140.00  45.30
SO LOCATION  ON_1179  VOLUME  610360.00  4200160.00  44.89
SO LOCATION  ON_1180  VOLUME  610360.00  4200180.00  44.55
SO LOCATION  ON_1181  VOLUME  610360.00  4200200.00  44.46
SO LOCATION  ON_1182  VOLUME  610360.00  4200220.00  45.32
SO LOCATION  ON_1183  VOLUME  610360.00  4200240.00  46.16
SO LOCATION  ON_1184  VOLUME  610360.00  4200500.00  42.86
SO LOCATION  ON_1185  VOLUME  610360.00  4200520.00  42.76
SO LOCATION  ON_1186  VOLUME  610360.00  4200540.00  42.66
SO LOCATION  ON_1187  VOLUME  610360.00  4200560.00  42.56
SO LOCATION  ON_1188  VOLUME  610360.00  4200580.00  42.46
SO LOCATION  ON_1189  VOLUME  610360.00  4200600.00  42.34
SO LOCATION  ON_1190  VOLUME  610360.00  4200620.00  42.19
SO LOCATION  ON_1191  VOLUME  610360.00  4200640.00  42.14
SO LOCATION  ON_1192  VOLUME  610360.00  4200660.00  40.44
SO LOCATION  ON_1193  VOLUME  610360.00  4200680.00  40.88
SO LOCATION  ON_1194  VOLUME  610380.00  4199900.00  57.36
SO LOCATION  ON_1195  VOLUME  610380.00  4199920.00  56.22
SO LOCATION  ON_1196  VOLUME  610380.00  4199940.00  54.99
SO LOCATION  ON_1197  VOLUME  610380.00  4199960.00  53.79
SO LOCATION  ON_1198  VOLUME  610380.00  4199980.00  52.50
SO LOCATION  ON_1199  VOLUME  610380.00  4200000.00  51.09
SO LOCATION  ON_1200  VOLUME  610380.00  4200020.00  49.59
```

Modeled Onsite Sources

```
SO LOCATION  ON_1201  VOLUME  610380.00  4200040.00  48.48
SO LOCATION  ON_1202  VOLUME  610380.00  4200060.00  47.43
SO LOCATION  ON_1203  VOLUME  610380.00  4200080.00  46.47
SO LOCATION  ON_1204  VOLUME  610380.00  4200100.00  45.37
SO LOCATION  ON_1205  VOLUME  610380.00  4200120.00  44.29
SO LOCATION  ON_1206  VOLUME  610380.00  4200140.00  43.65
SO LOCATION  ON_1207  VOLUME  610380.00  4200160.00  43.44
SO LOCATION  ON_1208  VOLUME  610380.00  4200180.00  43.30
SO LOCATION  ON_1209  VOLUME  610380.00  4200200.00  43.37
SO LOCATION  ON_1210  VOLUME  610380.00  4200220.00  44.66
SO LOCATION  ON_1211  VOLUME  610380.00  4200240.00  45.51
SO LOCATION  ON_1212  VOLUME  610400.00  4199900.00  54.99
SO LOCATION  ON_1213  VOLUME  610400.00  4199920.00  53.95
SO LOCATION  ON_1214  VOLUME  610400.00  4199940.00  52.79
SO LOCATION  ON_1215  VOLUME  610400.00  4199960.00  51.66
SO LOCATION  ON_1216  VOLUME  610400.00  4199980.00  50.51
SO LOCATION  ON_1217  VOLUME  610400.00  4200000.00  49.38
SO LOCATION  ON_1218  VOLUME  610400.00  4200020.00  48.35
SO LOCATION  ON_1219  VOLUME  610400.00  4200040.00  47.36
SO LOCATION  ON_1220  VOLUME  610400.00  4200060.00  46.32
SO LOCATION  ON_1221  VOLUME  610400.00  4200080.00  45.30
SO LOCATION  ON_1222  VOLUME  610400.00  4200100.00  44.33
SO LOCATION  ON_1223  VOLUME  610400.00  4200120.00  43.37
SO LOCATION  ON_1224  VOLUME  610400.00  4200140.00  43.10
```

Modeled Onsite Sources

SO LOCATION ON_1225 VOLUME 610400.00 4200160.00 43.02

SO LOCATION ON_1226 VOLUME 610400.00 4200180.00 43.02

SO LOCATION ON_1227 VOLUME 610400.00 4200200.00 43.34

SO LOCATION ON_1228 VOLUME 610400.00 4200220.00 44.26

SO LOCATION ON_1229 VOLUME 610400.00 4200240.00 44.92

SO LOCATION ON_1230 VOLUME 610420.00 4199900.00 52.51

SO LOCATION ON_1231 VOLUME 610420.00 4199920.00 51.57

SO LOCATION ON_1232 VOLUME 610420.00 4199940.00 50.63

SO LOCATION ON_1233 VOLUME 610420.00 4199960.00 49.60

SO LOCATION ON_1234 VOLUME 610420.00 4199980.00 48.76

SO LOCATION ON_1235 VOLUME 610420.00 4200000.00 47.93

SO LOCATION ON_1236 VOLUME 610420.00 4200020.00 47.04

SO LOCATION ON_1237 VOLUME 610420.00 4200040.00 46.12

SO LOCATION ON_1238 VOLUME 610420.00 4200060.00 45.22

SO LOCATION ON_1239 VOLUME 610420.00 4200080.00 44.09

SO LOCATION ON_1240 VOLUME 610420.00 4200100.00 43.30

SO LOCATION ON_1241 VOLUME 610420.00 4200120.00 42.94

SO LOCATION ON_1242 VOLUME 610420.00 4200140.00 42.68

SO LOCATION ON_1243 VOLUME 610420.00 4200160.00 42.58

SO LOCATION ON_1244 VOLUME 610420.00 4200180.00 42.75

SO LOCATION ON_1245 VOLUME 610420.00 4200200.00 43.30

SO LOCATION ON_1246 VOLUME 610420.00 4200220.00 43.83

SO LOCATION ON_1247 VOLUME 610420.00 4200240.00 44.31

SO LOCATION ON_1248 VOLUME 610440.00 4199900.00 50.10

Modeled Onsite Sources

SO LOCATION ON_1249 VOLUME 610440.00 4199920.00 49.36

SO LOCATION ON_1250 VOLUME 610440.00 4199940.00 48.69

SO LOCATION ON_1251 VOLUME 610440.00 4199960.00 47.96

SO LOCATION ON_1252 VOLUME 610440.00 4199980.00 47.17

SO LOCATION ON_1253 VOLUME 610440.00 4200000.00 46.37

SO LOCATION ON_1254 VOLUME 610440.00 4200020.00 45.60

SO LOCATION ON_1255 VOLUME 610440.00 4200040.00 44.95

SO LOCATION ON_1256 VOLUME 610440.00 4200060.00 44.19

SO LOCATION ON_1257 VOLUME 610440.00 4200080.00 43.31

SO LOCATION ON_1258 VOLUME 610440.00 4200100.00 42.64

SO LOCATION ON_1259 VOLUME 610440.00 4200120.00 42.26

SO LOCATION ON_1260 VOLUME 610440.00 4200140.00 42.02

SO LOCATION ON_1261 VOLUME 610440.00 4200160.00 42.07

SO LOCATION ON_1262 VOLUME 610440.00 4200180.00 42.47

SO LOCATION ON_1263 VOLUME 610440.00 4200200.00 43.00

SO LOCATION ON_1264 VOLUME 610440.00 4200220.00 43.36

SO LOCATION ON_1265 VOLUME 610440.00 4200240.00 43.59

SO LOCATION ON_1266 VOLUME 610460.00 4199900.00 48.31

SO LOCATION ON_1267 VOLUME 610460.00 4199920.00 47.71

SO LOCATION ON_1268 VOLUME 610460.00 4199940.00 47.07

SO LOCATION ON_1269 VOLUME 610460.00 4199960.00 46.37

SO LOCATION ON_1270 VOLUME 610460.00 4199980.00 45.56

SO LOCATION ON_1271 VOLUME 610460.00 4200000.00 44.76

SO LOCATION ON_1272 VOLUME 610460.00 4200020.00 44.11

Modeled Onsite Sources

SO LOCATION ON_1273 VOLUME 610460.00 4200040.00 43.60

SO LOCATION ON_1274 VOLUME 610460.00 4200060.00 43.15

SO LOCATION ON_1275 VOLUME 610460.00 4200080.00 42.49

SO LOCATION ON_1276 VOLUME 610460.00 4200100.00 41.97

SO LOCATION ON_1277 VOLUME 610460.00 4200120.00 41.79

SO LOCATION ON_1278 VOLUME 610460.00 4200140.00 41.77

SO LOCATION ON_1279 VOLUME 610460.00 4200160.00 41.81

SO LOCATION ON_1280 VOLUME 610460.00 4200180.00 42.17

SO LOCATION ON_1281 VOLUME 610460.00 4200200.00 42.57

SO LOCATION ON_1282 VOLUME 610460.00 4200220.00 42.87

SO LOCATION ON_1283 VOLUME 610460.00 4200240.00 43.05

SO LOCATION ON_1284 VOLUME 610480.00 4199900.00 46.67

SO LOCATION ON_1285 VOLUME 610480.00 4199920.00 46.11

SO LOCATION ON_1286 VOLUME 610480.00 4199940.00 45.43

SO LOCATION ON_1287 VOLUME 610480.00 4199960.00 44.79

SO LOCATION ON_1288 VOLUME 610480.00 4199980.00 44.13

SO LOCATION ON_1289 VOLUME 610480.00 4200000.00 43.41

SO LOCATION ON_1290 VOLUME 610480.00 4200020.00 42.98

SO LOCATION ON_1291 VOLUME 610480.00 4200040.00 42.60

SO LOCATION ON_1292 VOLUME 610480.00 4200060.00 42.20

SO LOCATION ON_1293 VOLUME 610480.00 4200080.00 41.84

SO LOCATION ON_1294 VOLUME 610480.00 4200100.00 41.72

SO LOCATION ON_1295 VOLUME 610480.00 4200120.00 41.66

SO LOCATION ON_1296 VOLUME 610480.00 4200140.00 41.57

Modeled Onsite Sources

SO LOCATION ON_1297 VOLUME 610480.00 4200160.00 41.67

SO LOCATION ON_1298 VOLUME 610480.00 4200180.00 41.89

SO LOCATION ON_1299 VOLUME 610480.00 4200200.00 42.15

SO LOCATION ON_1300 VOLUME 610480.00 4200220.00 42.35

SO LOCATION ON_1301 VOLUME 610480.00 4200240.00 42.53

SO LOCATION ON_1302 VOLUME 610500.00 4199940.00 43.91

SO LOCATION ON_1303 VOLUME 610500.00 4199960.00 43.40

SO LOCATION ON_1304 VOLUME 610500.00 4199980.00 42.97

SO LOCATION ON_1305 VOLUME 610500.00 4200000.00 42.50

SO LOCATION ON_1306 VOLUME 610500.00 4200020.00 42.16

SO LOCATION ON_1307 VOLUME 610500.00 4200040.00 41.91

SO LOCATION ON_1308 VOLUME 610500.00 4200060.00 41.78

SO LOCATION ON_1309 VOLUME 610500.00 4200080.00 41.69

SO LOCATION ON_1310 VOLUME 610500.00 4200100.00 41.59

SO LOCATION ON_1311 VOLUME 610500.00 4200120.00 41.48

SO LOCATION ON_1312 VOLUME 610500.00 4200140.00 41.47

SO LOCATION ON_1313 VOLUME 610500.00 4200160.00 41.55

SO LOCATION ON_1314 VOLUME 610500.00 4200180.00 41.71

SO LOCATION ON_1315 VOLUME 610500.00 4200200.00 41.81

SO LOCATION ON_1316 VOLUME 610500.00 4200220.00 41.93

SO LOCATION ON_1317 VOLUME 610520.00 4199920.00 43.31

SO LOCATION ON_1318 VOLUME 610520.00 4199940.00 43.16

SO LOCATION ON_1319 VOLUME 610520.00 4199960.00 42.81

SO LOCATION ON_1320 VOLUME 610520.00 4199980.00 42.13

Modeled Onsite Sources

```
SO LOCATION  ON_1321  VOLUME  610520.00  4200000.00  41.81
SO LOCATION  ON_1322  VOLUME  610520.00  4200020.00  41.72
SO LOCATION  ON_1323  VOLUME  610520.00  4200040.00  41.62
SO LOCATION  ON_1324  VOLUME  610520.00  4200060.00  41.54
SO LOCATION  ON_1325  VOLUME  610520.00  4200080.00  41.48
SO LOCATION  ON_1326  VOLUME  610520.00  4200100.00  41.38
SO LOCATION  ON_1327  VOLUME  610520.00  4200120.00  41.35
SO LOCATION  ON_1328  VOLUME  610520.00  4200140.00  41.35
SO LOCATION  ON_1329  VOLUME  610520.00  4200160.00  41.37
SO LOCATION  ON_1330  VOLUME  610520.00  4200180.00  41.48
SO LOCATION  ON_1331  VOLUME  610520.00  4200200.00  41.58
SO LOCATION  ON_1332  VOLUME  610540.00  4199920.00  43.03
SO LOCATION  ON_1333  VOLUME  610540.00  4199940.00  42.93
SO LOCATION  ON_1334  VOLUME  610540.00  4199960.00  42.51
SO LOCATION  ON_1335  VOLUME  610540.00  4199980.00  42.03
SO LOCATION  ON_1336  VOLUME  610540.00  4200000.00  41.63
SO LOCATION  ON_1337  VOLUME  610540.00  4200020.00  41.44
SO LOCATION  ON_1338  VOLUME  610540.00  4200040.00  41.36
SO LOCATION  ON_1339  VOLUME  610540.00  4200060.00  41.29
SO LOCATION  ON_1340  VOLUME  610540.00  4200080.00  41.22
SO LOCATION  ON_1341  VOLUME  610540.00  4200100.00  41.17
SO LOCATION  ON_1342  VOLUME  610540.00  4200120.00  41.17
SO LOCATION  ON_1343  VOLUME  610540.00  4200140.00  41.17
SO LOCATION  ON_1344  VOLUME  610540.00  4200160.00  41.17
```

Modeled Onsite Sources

```
SO LOCATION  ON_1345  VOLUME  610560.00  4199920.00  43.87
SO LOCATION  ON_1346  VOLUME  610560.00  4199940.00  43.32
SO LOCATION  ON_1347  VOLUME  610560.00  4199960.00  43.06
SO LOCATION  ON_1348  VOLUME  610560.00  4199980.00  42.69
SO LOCATION  ON_1349  VOLUME  610560.00  4200000.00  41.97
SO LOCATION  ON_1350  VOLUME  610560.00  4200020.00  41.48
SO LOCATION  ON_1351  VOLUME  610560.00  4200040.00  41.19
SO LOCATION  ON_1352  VOLUME  610560.00  4200060.00  41.08
SO LOCATION  ON_1353  VOLUME  610560.00  4200080.00  41.00
SO LOCATION  ON_1354  VOLUME  610560.00  4200100.00  40.97
SO LOCATION  ON_1355  VOLUME  610560.00  4200120.00  40.97
SO SRCPARAM  ON_0001  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0002  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0003  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0004  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0005  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0006  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0007  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0008  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0009  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0010  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0011  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0012  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0013  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0014  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0015  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0016  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0017  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0018  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0019  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0020  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0021  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0022  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0023  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0024  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0025  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0026  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0027  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0028  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0029  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0030  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0031  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0032  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0033  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0034  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0035  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0036  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0037  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0038  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0039  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0040  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0041  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0042  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0043  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0044  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0045  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0046  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0047  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0048  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0049  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0050  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0051  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0052  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0053  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0054  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0055  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0056  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0057  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0058  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0059  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0060  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0061  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0062  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0063  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0064  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0065  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0066  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0067  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0068  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0069  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0070  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0071  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0072  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0073  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0074  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0075  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0076  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0077  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0078  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0079  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0080  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0081  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0082  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0083  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0084  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0085  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0086  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0087  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0088  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0089  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0090  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0091  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0092  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0093  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0094  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0095  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0096  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0097  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0098  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0099  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0100  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0101  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0102  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0103  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0104  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0105  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0106  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0107  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0108  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0109  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0110  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0111  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0112  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0113  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0114  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0115  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0116  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0117  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0118  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0119  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0120  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0121  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0122  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0123  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0124  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0125  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0126  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0127  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0128  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0129  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0130  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0131  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0132  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0133  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0134  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0135  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0136  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0137  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0138  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0139  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0140  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0141  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0142  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0143  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0144  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0145  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0146  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0147  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0148  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0149  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0150  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0151  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0152  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0153  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0154  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0155  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0156  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0157  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0158  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0159  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0160  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0161  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0162  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0163  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0164  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0165  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0166  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0167  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0168  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0169  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0170  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0171  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0172  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0173  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0174  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0175  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0176  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0177  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0178  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0179  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0180  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0181  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0182  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0183  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0184  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0185  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0186  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0187  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0188  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0189  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0190  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0191  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0192  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0193  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0194  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0195  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0196  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0197  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0198  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0199  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0200  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0201  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0202  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0203  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0204  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0205  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0206  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0207  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0208  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0209  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0210  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0211  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0212  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0213  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0214  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0215  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0216  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0217  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0218  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0219  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0220  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0221  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0222  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0223  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0224  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0225  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0226  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0227  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0228  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0229  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0230  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0231  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0232  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0233  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0234  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0235  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0236  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0237  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0238  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0239  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0240  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0241  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0242  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0243  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0244  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0245  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0246  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0247  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0248  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0249  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0250  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0251  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0252  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0253  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0254  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0255  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0256  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0257  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0258  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0259  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0260  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0261  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0262  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0263  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0264  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0265  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0266  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0267  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0268  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0269  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0270  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0271  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0272  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0273  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0274  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0275  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0276  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0277  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0278  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0279  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0280  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0281  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0282  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0283  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0284  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0285  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0286  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0287  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0288  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0289  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0290  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0291  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0292  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0293  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0294  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0295  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0296  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0297  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0298  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0299  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0300  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0301  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0302  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0303  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0304  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0305  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0306  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0307  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0308  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0309  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0310  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0311  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0312  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0313  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0314  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0315  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0316  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0317  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0318  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0319  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0320  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0321  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0322  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0323  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0324  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0325  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0326  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0327  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0328  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0329  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0330  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0331  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0332  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0333  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0334  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0335  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0336  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0337  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0338  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0339  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0340  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0341  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0342  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0343  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0344  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0345  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0346  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0347  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0348  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0349  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

SO SRCPARAM ON_0350 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0351 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0352 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0353 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0354 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0355 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0356 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0357 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0358 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0359 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0360 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0361 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0362 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0363 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0364 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0365 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0366 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0367 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0368 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0369 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0370 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0371 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0372 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0373 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

SO SRCPARAM ON_0374 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0375 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0376 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0377 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0378 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0379 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0380 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0381 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0382 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0383 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0384 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0385 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0386 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0387 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0388 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0389 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0390 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0391 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0392 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0393 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0394 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0395 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0396 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0397 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

SO SRCPARAM ON_0398 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0399 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0400 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0401 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0402 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0403 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0404 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0405 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0406 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0407 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0408 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0409 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0410 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0411 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0412 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0413 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0414 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0415 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0416 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0417 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0418 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0419 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0420 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0421 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

SO SRCPARAM ON_0422 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0423 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0424 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0425 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0426 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0427 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0428 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0429 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0430 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0431 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0432 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0433 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0434 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0435 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0436 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0437 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0438 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0439 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0440 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0441 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0442 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0443 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0444 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0445 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

```
SO SRCPARAM  ON_0446  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0447  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0448  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0449  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0450  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0451  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0452  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0453  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0454  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0455  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0456  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0457  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0458  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0459  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0460  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0461  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0462  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0463  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0464  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0465  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0466  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0467  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0468  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0469  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0470  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0471  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0472  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0473  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0474  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0475  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0476  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0477  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0478  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0479  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0480  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0481  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0482  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0483  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0484  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0485  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0486  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0487  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0488  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0489  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0490  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0491  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0492  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0493  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0494  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0495  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0496  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0497  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0498  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0499  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0500  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0501  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0502  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0503  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0504  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0505  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0506  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0507  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0508  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0509  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0510  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0511  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0512  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0513  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0514  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0515  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0516  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0517  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0518  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0519  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0520  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0521  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0522  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0523  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0524  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0525  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0526  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0527  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0528  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0529  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0530  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0531  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0532  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0533  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0534  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0535  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0536  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0537  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0538  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0539  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0540  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0541  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0542  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0543  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0544  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0545  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0546  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0547  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0548  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0549  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0550  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0551  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0552  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0553  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0554  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0555  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0556  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0557  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0558  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0559  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0560  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0561  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0562  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0563  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0564  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0565  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0566  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0567  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0568  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0569  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0570  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0571  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0572  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0573  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0574  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0575  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0576  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0577  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0578  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0579  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0580  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0581  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0582  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0583  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0584  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0585  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0586  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0587  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0588  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0589  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0590  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0591  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0592  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0593  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0594  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0595  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0596  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0597  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0598  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0599  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0600  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0601  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0602  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0603  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0604  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0605  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0606  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0607  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0608  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0609  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0610  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0611  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0612  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0613  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0614  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0615  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0616  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0617  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0618  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0619  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0620  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0621  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0622  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0623  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0624  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0625  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0626  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0627  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0628  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0629  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0630  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0631  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0632  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0633  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0634  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0635  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0636  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0637  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

SO SRCPARAM ON_0638 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0639 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0640 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0641 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0642 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0643 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0644 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0645 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0646 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0647 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0648 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0649 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0650 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0651 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0652 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0653 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0654 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0655 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0656 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0657 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0658 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0659 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0660 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0661 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

SO SRCPARAM ON_0662 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0663 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0664 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0665 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0666 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0667 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0668 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0669 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0670 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0671 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0672 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0673 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0674 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0675 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0676 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0677 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0678 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0679 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0680 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0681 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0682 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0683 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0684 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0685 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

SO SRCPARAM ON_0686 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0687 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0688 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0689 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0690 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0691 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0692 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0693 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0694 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0695 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0696 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0697 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0698 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0699 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0700 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0701 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0702 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0703 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0704 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0705 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0706 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0707 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0708 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0709 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

SO SRCPARAM ON_0710 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0711 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0712 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0713 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0714 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0715 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0716 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0717 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0718 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0719 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0720 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0721 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0722 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0723 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0724 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0725 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0726 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0727 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0728 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0729 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0730 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0731 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0732 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0733 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

SO SRCPARAM ON_0734 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0735 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0736 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0737 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0738 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0739 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0740 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0741 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0742 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0743 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0744 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0745 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0746 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0747 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0748 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0749 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0750 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0751 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0752 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0753 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0754 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0755 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0756 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0757 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

SO SRCPARAM ON_0758 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0759 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0760 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0761 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0762 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0763 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0764 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0765 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0766 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0767 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0768 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0769 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0770 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0771 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0772 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0773 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0774 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0775 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0776 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0777 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0778 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0779 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0780 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0781 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

SO SRCPARAM ON_0782 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0783 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0784 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0785 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0786 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0787 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0788 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0789 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0790 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0791 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0792 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0793 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0794 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0795 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0796 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0797 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0798 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0799 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0800 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0801 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0802 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0803 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0804 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0805 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

SO SRCPARAM ON_0806 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0807 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0808 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0809 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0810 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0811 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0812 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0813 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0814 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0815 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0816 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0817 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0818 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0819 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0820 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0821 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0822 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0823 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0824 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0825 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0826 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0827 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0828 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_0829 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

SO SRCPARAM ON_0830 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0831 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0832 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0833 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0834 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0835 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0836 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0837 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0838 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0839 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0840 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0841 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0842 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0843 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0844 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0845 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0846 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0847 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0848 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0849 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0850 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0851 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0852 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0853 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

SO SRCPARAM ON_0854 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0855 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0856 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0857 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0858 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0859 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0860 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0861 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0862 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0863 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0864 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0865 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0866 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0867 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0868 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0869 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0870 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0871 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0872 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0873 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0874 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0875 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0876 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0877 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

SO SRCPARAM ON_0878 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0879 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0880 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0881 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0882 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0883 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0884 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0885 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0886 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0887 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0888 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0889 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0890 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0891 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0892 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0893 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0894 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0895 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0896 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0897 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0898 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0899 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0900 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0901 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

SO SRCPARAM ON_0902 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0903 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0904 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0905 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0906 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0907 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0908 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0909 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0910 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0911 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0912 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0913 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0914 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0915 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0916 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0917 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0918 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0919 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0920 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0921 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0922 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0923 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0924 7.380E-04 5.00 9.30 1.40

SO SRCPARAM ON_0925 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

```
SO SRCPARAM  ON_0926  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0927  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0928  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0929  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0930  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0931  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0932  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0933  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0934  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0935  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0936  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0937  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0938  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0939  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0940  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0941  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0942  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0943  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0944  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0945  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0946  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0947  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0948  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0949  7.380E-04  5.00  9.30  1.40
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Modeled Onsite Sources

```
SO SRCPARAM  ON_0950  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0951  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0952  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0953  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0954  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0955  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0956  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0957  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0958  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0959  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0960  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0961  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0962  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0963  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0964  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0965  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0966  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0967  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0968  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0969  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0970  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0971  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0972  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0973  7.380E-04  5.00  9.30  1.40
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Modeled Onsite Sources

```
SO SRCPARAM  ON_0974  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0975  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0976  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0977  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0978  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0979  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0980  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0981  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0982  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0983  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0984  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0985  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0986  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0987  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0988  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0989  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0990  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0991  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0992  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0993  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0994  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0995  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0996  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0997  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_0998  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_0999  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1000  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1001  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1002  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1003  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1004  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1005  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1006  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1007  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1008  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1009  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1010  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1011  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1012  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1013  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1014  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1015  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1016  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1017  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1018  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1019  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1020  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1021  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_1022  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1023  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1024  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1025  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1026  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1027  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1028  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1029  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1030  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1031  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1032  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1033  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1034  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1035  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1036  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1037  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1038  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1039  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1040  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1041  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1042  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1043  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1044  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1045  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_1046  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1047  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1048  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1049  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1050  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1051  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1052  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1053  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1054  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1055  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1056  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1057  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1058  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1059  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1060  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1061  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1062  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1063  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1064  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1065  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1066  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1067  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1068  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1069  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_1070  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1071  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1072  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1073  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1074  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1075  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1076  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1077  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1078  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1079  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1080  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1081  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1082  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1083  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1084  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1085  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1086  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1087  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1088  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1089  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1090  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1091  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1092  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1093  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_1094  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1095  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1096  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1097  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1098  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1099  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1100  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1101  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1102  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1103  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1104  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1105  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1106  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1107  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1108  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1109  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1110  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1111  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1112  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1113  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1114  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1115  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1116  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1117  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

SO SRCPARAM ON_1118 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1119 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1120 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1121 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1122 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1123 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1124 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1125 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1126 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1127 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1128 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1129 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1130 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1131 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1132 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1133 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1134 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1135 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1136 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1137 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1138 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1139 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1140 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1141 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

SO SRCPARAM ON_1142 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1143 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1144 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1145 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1146 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1147 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1148 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1149 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1150 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1151 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1152 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1153 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1154 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1155 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1156 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1157 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1158 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1159 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1160 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1161 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1162 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1163 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1164 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1165 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

SO SRCPARAM ON_1166 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1167 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1168 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1169 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1170 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1171 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1172 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1173 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1174 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1175 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1176 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1177 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1178 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1179 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1180 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1181 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1182 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1183 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1184 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1185 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1186 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1187 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1188 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1189 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

SO SRCPARAM ON_1190 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1191 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1192 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1193 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1194 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1195 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1196 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1197 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1198 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1199 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1200 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1201 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1202 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1203 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1204 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1205 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1206 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1207 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1208 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1209 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1210 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1211 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1212 7.380E-04 5.00 9.30 1.40
SO SRCPARAM ON_1213 7.380E-04 5.00 9.30 1.40

Modeled Onsite Sources

```
SO SRCPARAM  ON_1214  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1215  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1216  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1217  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1218  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1219  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1220  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1221  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1222  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1223  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1224  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1225  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1226  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1227  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1228  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1229  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1230  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1231  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1232  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1233  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1234  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1235  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1236  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1237  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

```
SO SRCPARAM  ON_1238  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1239  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1240  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1241  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1242  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1243  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1244  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1245  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1246  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1247  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1248  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1249  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1250  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1251  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1252  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1253  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1254  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1255  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1256  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1257  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1258  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1259  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1260  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1261  7.380E-04  5.00  9.30  1.40
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Modeled Onsite Sources

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SO SRCPARAM  ON_1262  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1263  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1264  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1265  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1266  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1267  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1268  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1269  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1270  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1271  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1272  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1273  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1274  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1275  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1276  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1277  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1278  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1279  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1280  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1281  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1282  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1283  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1284  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1285  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

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SO SRCPARAM  ON_1286  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1287  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1288  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1289  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1290  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1291  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1292  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1293  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1294  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1295  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1296  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1297  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1298  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1299  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1300  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1301  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1302  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1303  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1304  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1305  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1306  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1307  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1308  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1309  7.380E-04  5.00  9.30  1.40
```

Modeled Onsite Sources

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SO SRCPARAM  ON_1310  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1311  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1312  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1313  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1314  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1315  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1316  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1317  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1318  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1319  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1320  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1321  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1322  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1323  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1324  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1325  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1326  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1327  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1328  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1329  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1330  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1331  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1332  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1333  7.380E-04  5.00  9.30  1.40
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Modeled Onsite Sources

```
SO SRCPARAM  ON_1334  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1335  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1336  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1337  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1338  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1339  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1340  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1341  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1342  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1343  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1344  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1345  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1346  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1347  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1348  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1349  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1350  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1351  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1352  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1353  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1354  7.380E-04  5.00  9.30  1.40
SO SRCPARAM  ON_1355  7.380E-04  5.00  9.30  1.40
```

Modeled Haul Sources

```
SO LOCATION  SB_001  VOLUME  610815.85  4199727.35  39.58
SO LOCATION  SB_002  VOLUME  610812.44  4199735.67  39.54
SO LOCATION  SB_003  VOLUME  610809.03  4199744.00  39.51
SO LOCATION  SB_004  VOLUME  610805.62  4199752.33  39.48
SO LOCATION  SB_005  VOLUME  610802.20  4199760.66  39.48
SO LOCATION  SB_006  VOLUME  610798.83  4199769.01  39.47
SO LOCATION  SB_007  VOLUME  610795.56  4199777.39  39.47
SO LOCATION  SB_008  VOLUME  610792.29  4199785.77  39.49
SO LOCATION  SB_009  VOLUME  610789.02  4199794.16  39.47
SO LOCATION  SB_010  VOLUME  610785.75  4199802.54  39.42
SO LOCATION  SB_011  VOLUME  610782.48  4199810.93  39.39
SO LOCATION  SB_012  VOLUME  610779.21  4199819.31  39.37
SO LOCATION  SB_013  VOLUME  610775.93  4199827.70  39.3
SO LOCATION  SB_014  VOLUME  610772.66  4199836.08  39.27
SO LOCATION  SB_015  VOLUME  610769.39  4199844.47  39.25
SO LOCATION  SB_016  VOLUME  610766.12  4199852.85  39.26
SO LOCATION  SB_017  VOLUME  610762.85  4199861.23  39.29
SO LOCATION  SB_018  VOLUME  610759.58  4199869.62  39.19
SO LOCATION  SB_019  VOLUME  610756.31  4199878.00  38.98
SO LOCATION  SB_020  VOLUME  610753.04  4199886.39  38.78
SO LOCATION  SB_021  VOLUME  610749.91  4199894.83  38.74
SO LOCATION  SB_022  VOLUME  610746.87  4199903.30  38.83
SO LOCATION  SB_023  VOLUME  610743.83  4199911.77  38.98
SO LOCATION  SB_024  VOLUME  610740.79  4199920.24  39.13
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Modeled Haul Sources

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SO LOCATION  SB_025  VOLUME  610737.75  4199928.71  39.28
SO LOCATION  SB_026  VOLUME  610734.71  4199937.18  39.46
SO LOCATION  SB_027  VOLUME  610731.68  4199945.65  39.62
SO LOCATION  SB_028  VOLUME  610728.64  4199954.13  39.77
SO LOCATION  SB_029  VOLUME  610725.60  4199962.60  39.95
SO LOCATION  SB_030  VOLUME  610722.56  4199971.07  40.12
SO LOCATION  SB_031  VOLUME  610719.52  4199979.54  40.28
SO LOCATION  SB_032  VOLUME  610716.27  4199987.93  40.38
SO LOCATION  SB_033  VOLUME  610712.92  4199996.28  40.48
SO LOCATION  SB_034  VOLUME  610709.57  4200004.64  40.53
SO LOCATION  SB_035  VOLUME  610706.22  4200012.99  40.49
SO LOCATION  SB_036  VOLUME  610702.87  4200021.34  40.45
SO LOCATION  SB_037  VOLUME  610699.52  4200029.70  40.35
SO LOCATION  SB_038  VOLUME  610696.17  4200038.05  40.27
SO LOCATION  SB_039  VOLUME  610692.82  4200046.40  40.21
SO LOCATION  SB_040  VOLUME  610689.47  4200054.76  40.1
SO LOCATION  SB_041  VOLUME  610686.12  4200063.11  40.02
SO LOCATION  SB_042  VOLUME  610682.77  4200071.46  39.96
SO LOCATION  SB_043  VOLUME  610679.42  4200079.82  39.91
SO LOCATION  SB_044  VOLUME  610676.07  4200088.17  39.89
SO LOCATION  SB_045  VOLUME  610672.72  4200096.52  39.85
SO LOCATION  SB_046  VOLUME  610669.37  4200104.88  39.88
SO LOCATION  SB_047  VOLUME  610666.01  4200113.23  39.91
SO LOCATION  SB_048  VOLUME  610662.66  4200121.58  39.95
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Modeled Haul Sources

SO LOCATION SB_049 VOLUME 610659.31 4200129.93 39.98

SO LOCATION SB_050 VOLUME 610655.96 4200138.29 40.03

SO LOCATION SB_051 VOLUME 610652.61 4200146.64 40.15

SO LOCATION SB_052 VOLUME 610649.26 4200154.99 40.18

SO LOCATION SB_053 VOLUME 610645.91 4200163.35 40.21

SO LOCATION SB_054 VOLUME 610642.56 4200171.70 40.25

SO LOCATION SB_055 VOLUME 610639.21 4200180.05 40.3

SO LOCATION SB_056 VOLUME 610635.86 4200188.40 40.34

SO LOCATION SB_057 VOLUME 610632.50 4200196.76 40.36

SO LOCATION SB_058 VOLUME 610629.15 4200205.11 40.39

SO LOCATION SB_059 VOLUME 610625.80 4200213.46 40.42

SO LOCATION SB_060 VOLUME 610622.45 4200221.82 40.43

SO LOCATION SB_061 VOLUME 610619.10 4200230.17 40.43

SO LOCATION SB_062 VOLUME 610615.75 4200238.52 40.44

SO LOCATION SB_063 VOLUME 610612.40 4200246.88 40.46

SO LOCATION SB_064 VOLUME 610609.05 4200255.23 40.48

SO LOCATION SB_065 VOLUME 610605.70 4200263.58 40.5

SO LOCATION SB_066 VOLUME 610602.35 4200271.93 40.53

SO LOCATION SB_067 VOLUME 610598.99 4200280.29 40.53

SO LOCATION SB_068 VOLUME 610595.64 4200288.64 40.54

SO LOCATION SB_069 VOLUME 610592.30 4200297.00 40.55

SO LOCATION SB_070 VOLUME 610588.97 4200305.36 40.58

SO LOCATION SB_071 VOLUME 610585.64 4200313.72 40.61

SO LOCATION SB_072 VOLUME 610582.24 4200322.05 40.65

Modeled Haul Sources

SO LOCATION SB_073 VOLUME 610578.83 4200330.38 40.68

SO LOCATION SB_074 VOLUME 610575.42 4200338.71 40.71

SO LOCATION SB_075 VOLUME 610572.01 4200347.04 40.77

SO LOCATION SB_076 VOLUME 610568.60 4200355.37 40.84

SO LOCATION SB_077 VOLUME 610565.20 4200363.70 40.9

SO LOCATION SB_078 VOLUME 610561.79 4200372.03 40.94

SO LOCATION SB_079 VOLUME 610558.46 4200380.39 40.99

SO LOCATION SB_080 VOLUME 610555.15 4200388.76 41.02

SO LOCATION SB_081 VOLUME 610551.84 4200397.13 41.07

SO LOCATION SB_082 VOLUME 610548.53 4200405.50 41.14

SO LOCATION SB_083 VOLUME 610545.22 4200413.87 41.2

SO LOCATION SB_084 VOLUME 610541.90 4200422.23 41.2

SO LOCATION SB_085 VOLUME 610538.59 4200430.60 41.24

SO LOCATION SB_086 VOLUME 610535.28 4200438.97 41.3

SO LOCATION SB_087 VOLUME 610531.97 4200447.34 41.35

SO LOCATION SB_088 VOLUME 610528.66 4200455.71 41.38

SO LOCATION SB_089 VOLUME 610525.35 4200464.08 41.4

SO LOCATION SB_090 VOLUME 610522.03 4200472.45 41.45

SO LOCATION SB_091 VOLUME 610518.72 4200480.81 41.49

SO LOCATION SB_092 VOLUME 610515.41 4200489.18 41.51

SO LOCATION SB_093 VOLUME 610512.10 4200497.55 41.54

SO LOCATION SB_094 VOLUME 610508.79 4200505.92 41.58

SO LOCATION SB_095 VOLUME 610505.48 4200514.29 41.6

SO LOCATION SB_096 VOLUME 610502.16 4200522.66 41.6

Modeled Haul Sources

SO LOCATION SB_097 VOLUME 610498.85 4200531.03 41.61

SO LOCATION SB_098 VOLUME 610495.54 4200539.39 41.62

SO LOCATION SB_099 VOLUME 610492.23 4200547.76 41.65

SO LOCATION SB_100 VOLUME 610488.92 4200556.13 41.68

SO LOCATION SB_101 VOLUME 610485.61 4200564.50 41.69

SO LOCATION SB_102 VOLUME 610482.30 4200572.87 41.69

SO LOCATION SB_103 VOLUME 610478.98 4200581.24 41.71

SO LOCATION SB_104 VOLUME 610475.67 4200589.61 41.71

SO LOCATION SB_105 VOLUME 610472.36 4200597.97 41.75

SO LOCATION SB_106 VOLUME 610469.05 4200606.34 41.77

SO LOCATION SB_107 VOLUME 610465.74 4200614.71 41.74

SO LOCATION SB_108 VOLUME 610462.43 4200623.08 41.75

SO LOCATION SB_109 VOLUME 610459.11 4200631.45 41.75

SO LOCATION SB_110 VOLUME 610455.80 4200639.82 41.76

SO LOCATION SB_111 VOLUME 610452.49 4200648.19 41.72

SO LOCATION SB_112 VOLUME 610449.18 4200656.55 41.66

SO LOCATION SB_113 VOLUME 610445.87 4200664.92 41.59

SO LOCATION SB_114 VOLUME 610442.54 4200673.28 41.46

SO LOCATION SB_115 VOLUME 610439.20 4200681.64 41.25

SO LOCATION SB_116 VOLUME 610435.87 4200690.00 40.96

SO LOCATION SB_117 VOLUME 610432.58 4200698.38 40.7

SO LOCATION SB_118 VOLUME 610429.38 4200706.79 40.39

SO LOCATION SB_119 VOLUME 610426.18 4200715.21 39.59

SO LOCATION SB_120 VOLUME 610422.98 4200723.62 39.12

Modeled Haul Sources

SO LOCATION SB_121 VOLUME 610419.79 4200732.03 39.73

SO LOCATION SB_122 VOLUME 610416.59 4200740.44 40.7

SO LOCATION SB_123 VOLUME 610413.39 4200748.86 41.04

SO LOCATION SB_124 VOLUME 610410.19 4200757.27 41.31

SO LOCATION SB_125 VOLUME 610406.99 4200765.68 41.53

SO LOCATION SB_126 VOLUME 610403.79 4200774.09 41.67

SO LOCATION SB_127 VOLUME 610400.59 4200782.50 41.78

SO LOCATION SB_128 VOLUME 610397.39 4200790.92 41.86

SO LOCATION SB_129 VOLUME 610394.19 4200799.33 41.92

SO LOCATION SB_130 VOLUME 610391.14 4200807.80 41.96

SO LOCATION SB_131 VOLUME 610388.09 4200816.26 41.99

SO LOCATION SB_132 VOLUME 610385.04 4200824.73 42.02

SO LOCATION SB_133 VOLUME 610381.98 4200833.20 42.05

SO LOCATION SB_134 VOLUME 610378.93 4200841.66 42.08

SO LOCATION SB_135 VOLUME 610375.88 4200850.13 42.11

SO LOCATION SB_136 VOLUME 610372.83 4200858.60 42.14

SO LOCATION SB_137 VOLUME 610369.78 4200867.06 42.18

SO LOCATION SB_138 VOLUME 610366.72 4200875.53 42.21

SO LOCATION SB_139 VOLUME 610363.67 4200884.00 42.23

SO LOCATION SB_140 VOLUME 610360.62 4200892.46 42.27

SO LOCATION SB_141 VOLUME 610357.66 4200900.96 42.3

SO LOCATION SB_142 VOLUME 610354.71 4200909.47 42.31

SO LOCATION SB_143 VOLUME 610351.77 4200917.97 42.33

SO LOCATION SB_144 VOLUME 610348.93 4200926.51 42.38

Modeled Haul Sources

SO LOCATION SB_145 VOLUME 610346.51 4200935.18 42.4

SO LOCATION SB_146 VOLUME 610344.09 4200943.84 42.41

SO LOCATION SB_147 VOLUME 610341.67 4200952.51 42.43

SO LOCATION SB_148 VOLUME 610339.25 4200961.18 42.44

SO LOCATION SB_149 VOLUME 610337.17 4200969.94 42.44

SO LOCATION SB_150 VOLUME 610335.25 4200978.73 42.44

SO LOCATION SB_151 VOLUME 610333.32 4200987.52 42.45

SO LOCATION SB_152 VOLUME 610331.39 4200996.31 42.46

SO LOCATION NB_001 VOLUME 610293.07 4200994.18 42.76

SO LOCATION NB_002 VOLUME 610295.30 4200985.46 42.8

SO LOCATION NB_003 VOLUME 610297.52 4200976.74 42.75

SO LOCATION NB_004 VOLUME 610299.75 4200968.02 42.73

SO LOCATION NB_005 VOLUME 610301.98 4200959.30 42.72

SO LOCATION NB_006 VOLUME 610304.20 4200950.58 42.71

SO LOCATION NB_007 VOLUME 610306.43 4200941.86 42.7

SO LOCATION NB_008 VOLUME 610308.66 4200933.14 42.68

SO LOCATION NB_009 VOLUME 610310.88 4200924.42 42.63

SO LOCATION NB_010 VOLUME 610313.11 4200915.70 42.62

SO LOCATION NB_011 VOLUME 610315.34 4200906.98 42.61

SO LOCATION NB_012 VOLUME 610317.56 4200898.26 42.59

SO LOCATION NB_013 VOLUME 610319.79 4200889.54 42.55

SO LOCATION NB_014 VOLUME 610322.02 4200880.82 42.52

SO LOCATION NB_015 VOLUME 610324.24 4200872.10 42.49

SO LOCATION NB_016 VOLUME 610326.47 4200863.38 42.44

Modeled Haul Sources

SO LOCATION NB_017 VOLUME 610328.69 4200854.66 42.43

SO LOCATION NB_018 VOLUME 610330.92 4200845.94 42.41

SO LOCATION NB_019 VOLUME 610333.35 4200837.28 42.37

SO LOCATION NB_020 VOLUME 610336.72 4200828.94 42.33

SO LOCATION NB_021 VOLUME 610340.10 4200820.60 42.33

SO LOCATION NB_022 VOLUME 610343.48 4200812.26 42.29

SO LOCATION NB_023 VOLUME 610346.85 4200803.91 42.25

SO LOCATION NB_024 VOLUME 610350.23 4200795.57 42.23

SO LOCATION NB_025 VOLUME 610353.61 4200787.23 42.21

SO LOCATION NB_026 VOLUME 610356.99 4200778.88 42.16

SO LOCATION NB_027 VOLUME 610360.36 4200770.54 42.13

SO LOCATION NB_028 VOLUME 610363.74 4200762.20 42.11

SO LOCATION NB_029 VOLUME 610367.12 4200753.86 42.1

SO LOCATION NB_030 VOLUME 610370.49 4200745.51 42.07

SO LOCATION NB_031 VOLUME 610373.87 4200737.17 42.03

SO LOCATION NB_032 VOLUME 610377.25 4200728.83 41.99

SO LOCATION NB_033 VOLUME 610380.62 4200720.49 42.04

SO LOCATION NB_034 VOLUME 610384.00 4200712.14 41.97

SO LOCATION NB_035 VOLUME 610387.38 4200703.80 41.19

SO LOCATION NB_036 VOLUME 610390.67 4200695.43 39.92

SO LOCATION NB_037 VOLUME 610393.88 4200687.02 38.99

SO LOCATION NB_038 VOLUME 610397.09 4200678.61 40.38

SO LOCATION NB_039 VOLUME 610400.30 4200670.20 41.75

SO LOCATION NB_040 VOLUME 610403.51 4200661.79 42.06

Modeled Haul Sources

SO LOCATION NB_041 VOLUME 610406.72 4200653.39 42.07

SO LOCATION NB_042 VOLUME 610409.93 4200644.98 42.04

SO LOCATION NB_043 VOLUME 610413.14 4200636.57 42.05

SO LOCATION NB_044 VOLUME 610416.35 4200628.16 42.08

SO LOCATION NB_045 VOLUME 610419.56 4200619.75 42.11

SO LOCATION NB_046 VOLUME 610422.77 4200611.35 42.12

SO LOCATION NB_047 VOLUME 610425.98 4200602.94 42.1

SO LOCATION NB_048 VOLUME 610429.19 4200594.53 42.09

SO LOCATION NB_049 VOLUME 610432.40 4200586.12 42.12

SO LOCATION NB_050 VOLUME 610435.61 4200577.71 42.12

SO LOCATION NB_051 VOLUME 610438.82 4200569.31 42.11

SO LOCATION NB_052 VOLUME 610442.03 4200560.90 42.13

SO LOCATION NB_053 VOLUME 610445.24 4200552.49 42.12

SO LOCATION NB_054 VOLUME 610448.45 4200544.08 42.09

SO LOCATION NB_055 VOLUME 610451.66 4200535.67 42.06

SO LOCATION NB_056 VOLUME 610454.87 4200527.27 42.09

SO LOCATION NB_057 VOLUME 610458.08 4200518.86 42.09

SO LOCATION NB_058 VOLUME 610461.59 4200510.57 42.06

SO LOCATION NB_059 VOLUME 610465.14 4200502.30 42.04

SO LOCATION NB_060 VOLUME 610468.68 4200494.03 42.1

SO LOCATION NB_061 VOLUME 610472.23 4200485.75 42.05

SO LOCATION NB_062 VOLUME 610475.77 4200477.48 42.02

SO LOCATION NB_063 VOLUME 610479.32 4200469.21 42.04

SO LOCATION NB_064 VOLUME 610482.86 4200460.94 42.05

Modeled Haul Sources

SO LOCATION NB_065 VOLUME 610486.41 4200452.66 42.01

SO LOCATION NB_066 VOLUME 610489.95 4200444.39 41.97

SO LOCATION NB_067 VOLUME 610493.50 4200436.12 41.94

SO LOCATION NB_068 VOLUME 610497.04 4200427.85 41.9

SO LOCATION NB_069 VOLUME 610500.59 4200419.58 41.87

SO LOCATION NB_070 VOLUME 610504.13 4200411.30 41.84

SO LOCATION NB_071 VOLUME 610507.68 4200403.03 41.8

SO LOCATION NB_072 VOLUME 610511.22 4200394.76 41.76

SO LOCATION NB_073 VOLUME 610514.77 4200386.49 41.71

SO LOCATION NB_074 VOLUME 610518.31 4200378.21 41.64

SO LOCATION NB_075 VOLUME 610521.86 4200369.94 41.61

SO LOCATION NB_076 VOLUME 610525.41 4200361.67 41.6

SO LOCATION NB_077 VOLUME 610528.95 4200353.40 41.53

SO LOCATION NB_078 VOLUME 610532.50 4200345.12 41.46

SO LOCATION NB_079 VOLUME 610536.04 4200336.85 41.4

SO LOCATION NB_080 VOLUME 610539.39 4200328.50 41.38

SO LOCATION NB_081 VOLUME 610542.54 4200320.07 41.35

SO LOCATION NB_082 VOLUME 610545.69 4200311.64 41.3

SO LOCATION NB_083 VOLUME 610548.83 4200303.21 41.23

SO LOCATION NB_084 VOLUME 610551.98 4200294.78 41.17

SO LOCATION NB_085 VOLUME 610555.13 4200286.35 41.1

SO LOCATION NB_086 VOLUME 610558.28 4200277.91 41.04

SO LOCATION NB_087 VOLUME 610561.43 4200269.48 40.98

SO LOCATION NB_088 VOLUME 610564.58 4200261.05 40.94

Modeled Haul Sources

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SO LOCATION  NB_089  VOLUME  610567.73  4200252.62  40.9
SO LOCATION  NB_090  VOLUME  610570.88  4200244.19  40.86
SO LOCATION  NB_091  VOLUME  610574.03  4200235.76  40.81
SO LOCATION  NB_092  VOLUME  610577.18  4200227.33  40.76
SO LOCATION  NB_093  VOLUME  610580.32  4200218.90  40.71
SO LOCATION  NB_094  VOLUME  610583.47  4200210.46  40.65
SO LOCATION  NB_095  VOLUME  610586.62  4200202.03  40.6
SO LOCATION  NB_096  VOLUME  610589.77  4200193.60  40.57
SO LOCATION  NB_097  VOLUME  610592.92  4200185.17  40.55
SO LOCATION  NB_098  VOLUME  610596.07  4200176.74  40.53
SO LOCATION  NB_099  VOLUME  610599.22  4200168.31  40.53
SO LOCATION  NB_100  VOLUME  610602.37  4200159.88  40.52
SO LOCATION  NB_101  VOLUME  610605.52  4200151.45  40.51
SO LOCATION  NB_102  VOLUME  610608.67  4200143.02  40.48
SO LOCATION  NB_103  VOLUME  610611.81  4200134.58  40.46
SO LOCATION  NB_104  VOLUME  610614.96  4200126.15  40.43
SO LOCATION  NB_105  VOLUME  610618.11  4200117.72  40.39
SO LOCATION  NB_106  VOLUME  610621.26  4200109.29  40.3
SO LOCATION  NB_107  VOLUME  610624.41  4200100.86  40.24
SO LOCATION  NB_108  VOLUME  610627.56  4200092.43  40.2
SO LOCATION  NB_109  VOLUME  610630.71  4200084.00  40.16
SO LOCATION  NB_110  VOLUME  610633.86  4200075.57  40.16
SO LOCATION  NB_111  VOLUME  610637.01  4200067.14  40.19
SO LOCATION  NB_112  VOLUME  610640.16  4200058.70  40.24
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Modeled Haul Sources

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SO LOCATION  NB_113  VOLUME  610643.60  4200050.39  40.32
SO LOCATION  NB_114  VOLUME  610647.06  4200042.08  40.47
SO LOCATION  NB_115  VOLUME  610650.52  4200033.77  40.79
SO LOCATION  NB_116  VOLUME  610653.98  4200025.47  41.25
SO LOCATION  NB_117  VOLUME  610657.44  4200017.16  41.64
SO LOCATION  NB_118  VOLUME  610660.91  4200008.85  41.91
SO LOCATION  NB_119  VOLUME  610664.37  4200000.54  42.1
SO LOCATION  NB_120  VOLUME  610667.83  4199992.24  42.23
SO LOCATION  NB_121  VOLUME  610671.29  4199983.93  42.36
SO LOCATION  NB_122  VOLUME  610674.75  4199975.62  42.42
SO LOCATION  NB_123  VOLUME  610678.21  4199967.31  42.48
SO LOCATION  NB_124  VOLUME  610681.68  4199959.01  42.49
SO LOCATION  NB_125  VOLUME  610685.14  4199950.70  42.48
SO LOCATION  NB_126  VOLUME  610688.60  4199942.39  42.47
SO LOCATION  NB_127  VOLUME  610692.06  4199934.08  42.46
SO LOCATION  NB_128  VOLUME  610695.52  4199925.77  42.43
SO LOCATION  NB_129  VOLUME  610698.98  4199917.47  42.33
SO LOCATION  NB_130  VOLUME  610702.44  4199909.16  42.18
SO LOCATION  NB_131  VOLUME  610705.91  4199900.85  41.99
SO LOCATION  NB_132  VOLUME  610709.37  4199892.54  41.73
SO LOCATION  NB_133  VOLUME  610712.83  4199884.24  41.5
SO LOCATION  NB_134  VOLUME  610716.29  4199875.93  41.56
SO LOCATION  NB_135  VOLUME  610719.75  4199867.62  41.86
SO LOCATION  NB_136  VOLUME  610723.21  4199859.31  42.27
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Modeled Haul Sources

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SO LOCATION  NB_137  VOLUME  610726.68  4199851.01  42.49
SO LOCATION  NB_138  VOLUME  610730.14  4199842.70  42.93
SO LOCATION  NB_139  VOLUME  610733.60  4199834.39  43.25
SO LOCATION  NB_140  VOLUME  610737.06  4199826.08  43.46
SO LOCATION  NB_141  VOLUME  610740.52  4199817.77  43.65
SO LOCATION  NB_142  VOLUME  610743.98  4199809.47  43.78
SO LOCATION  NB_143  VOLUME  610747.44  4199801.16  44.01
SO LOCATION  NB_144  VOLUME  610750.91  4199792.85  44.21
SO LOCATION  NB_145  VOLUME  610754.37  4199784.54  44.4
SO LOCATION  NB_146  VOLUME  610757.83  4199776.24  44.53
SO LOCATION  NB_147  VOLUME  610761.29  4199767.93  44.65
SO LOCATION  NB_148  VOLUME  610764.75  4199759.62  44.77
SO LOCATION  NB_149  VOLUME  610768.21  4199751.31  44.83
SO LOCATION  NB_150  VOLUME  610771.68  4199743.01  44.87
SO LOCATION  NB_151  VOLUME  610775.14  4199734.70  44.87
SO LOCATION  NB_152  VOLUME  610778.60  4199726.39  44.83
SO LOCATION  NB_153  VOLUME  610782.06  4199718.08  44.82
SO LOCATION  NB_154  VOLUME  610785.52  4199709.77  44.81
SO LOCATION  NB_155  VOLUME  610788.98  4199701.47  44.76
SO SRCPARAM  SB_001  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_002  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_003  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_004  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_005  6.579E-03  2.55  4.19  2.37
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Modeled Haul Sources

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SO SRCPARAM  SB_006  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_007  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_008  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_009  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_010  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_011  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_012  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_013  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_014  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_015  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_016  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_017  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_018  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_019  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_020  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_021  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_022  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_023  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_024  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_025  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_026  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_027  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_028  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_029  6.579E-03  2.55  4.19  2.37
```

Modeled Haul Sources

SO SRCPARAM SB_030 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_031 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_032 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_033 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_034 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_035 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_036 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_037 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_038 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_039 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_040 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_041 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_042 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_043 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_044 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_045 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_046 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_047 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_048 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_049 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_050 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_051 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_052 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_053 6.579E-03 2.55 4.19 2.37

Modeled Haul Sources

SO SRCPARAM SB_054 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_055 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_056 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_057 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_058 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_059 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_060 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_061 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_062 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_063 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_064 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_065 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_066 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_067 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_068 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_069 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_070 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_071 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_072 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_073 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_074 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_075 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_076 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_077 6.579E-03 2.55 4.19 2.37

Modeled Haul Sources

SO SRCPARAM SB_078 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_079 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_080 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_081 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_082 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_083 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_084 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_085 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_086 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_087 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_088 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_089 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_090 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_091 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_092 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_093 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_094 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_095 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_096 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_097 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_098 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_099 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_100 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_101 6.579E-03 2.55 4.19 2.37

Modeled Haul Sources

SO SRCPARAM SB_102 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_103 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_104 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_105 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_106 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_107 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_108 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_109 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_110 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_111 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_112 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_113 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_114 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_115 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_116 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_117 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_118 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_119 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_120 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_121 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_122 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_123 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_124 6.579E-03 2.55 4.19 2.37

SO SRCPARAM SB_125 6.579E-03 2.55 4.19 2.37

Modeled Haul Sources

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SO SRCPARAM  SB_126  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_127  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_128  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_129  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_130  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_131  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_132  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_133  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_134  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_135  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_136  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_137  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_138  6.579E-03  2.55  4.19  2.37
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SO SRCPARAM  SB_142  6.579E-03  2.55  4.19  2.37
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SO SRCPARAM  SB_145  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_146  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_147  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_148  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_149  6.579E-03  2.55  4.19  2.37
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Modeled Haul Sources

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SO SRCPARAM  SB_151  6.579E-03  2.55  4.19  2.37
SO SRCPARAM  SB_152  6.579E-03  2.55  4.19  2.37
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SO SRCPARAM  NB_002  6.452E-03  2.55  4.19  2.37
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SO SRCPARAM  NB_004  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_005  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_006  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_007  6.452E-03  2.55  4.19  2.37
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SO SRCPARAM  NB_016  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_017  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_018  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_019  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_020  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_021  6.452E-03  2.55  4.19  2.37
```

Modeled Haul Sources

```
SO SRCPARAM  NB_022  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_023  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_024  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_025  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_026  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_027  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_028  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_029  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_030  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_031  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_032  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_033  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_034  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_035  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_036  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_037  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_038  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_039  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_040  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_041  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_042  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_043  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_044  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_045  6.452E-03  2.55  4.19  2.37
```

Modeled Haul Sources

```
SO SRCPARAM  NB_046  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_047  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_048  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_049  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_050  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_051  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_052  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_053  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_054  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_055  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_056  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_057  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_058  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_059  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_060  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_061  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_062  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_063  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_064  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_065  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_066  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_067  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_068  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_069  6.452E-03  2.55  4.19  2.37
```

Modeled Haul Sources

```
SO SRCPARAM  NB_070  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_071  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_072  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_073  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_074  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_075  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_076  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_077  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_078  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_079  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_080  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_081  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_082  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_083  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_084  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_085  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_086  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_087  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_088  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_089  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_090  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_091  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_092  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_093  6.452E-03  2.55  4.19  2.37
```

Modeled Haul Sources

```
SO SRCPARAM  NB_094  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_095  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_096  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_097  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_098  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_099  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_100  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_101  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_102  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_103  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_104  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_105  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_106  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_107  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_108  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_109  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_110  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_111  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_112  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_113  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_114  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_115  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_116  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_117  6.452E-03  2.55  4.19  2.37
```

Modeled Haul Sources

```
SO SRCPARAM  NB_118  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_119  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_120  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_121  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_122  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_123  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_124  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_125  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_126  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_127  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_128  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_129  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_130  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_131  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_132  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_133  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_134  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_135  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_136  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_137  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_138  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_139  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_140  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_141  6.452E-03  2.55  4.19  2.37
```

Modeled Haul Sources

```
SO SRCPARAM  NB_142  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_143  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_144  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_145  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_146  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_147  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_148  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_149  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_150  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_151  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_152  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_153  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_154  6.452E-03  2.55  4.19  2.37
SO SRCPARAM  NB_155  6.452E-03  2.55  4.19  2.37
```

APPENDIX C
CALEEMOD® OUTPUT FILES

Bridle Gate - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Bridle Gate

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	4.30	Acre	4.30	187,308.00	0
Single Family Housing	286.00	Dwelling Unit	92.86	514,800.00	818

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2026
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Operational-only run.

Grading -

Vehicle Trips - Project specific.

Vehicle Emission Factors - Updated to EMFAC2021 emission factors, which incorporate newer regulations and projections than the default EMFAC2017 factors.

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust - Updated silt loading factor for Contra Costa County from the CARB 2021 Miscellaneous Process Methodology 7.9 for Entrained Road Travel, Paved Road Dust.

Woodstoves - No wood-burning devices per BAAQMD Regulation 6, Rule 3.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Consumer Products - An updated 2020 VOC inventory from CARB and population estimates based on the CA DOF demographic projections were used to estimate a Contra Costa County VOC EF for 2020.

Mobile Land Use Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Fleet Mix - Updated to EMFAC2021 fleet mix, which incorporates newer regulations and projections than the default EMFAC2017 mix.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	0.00
tblConstructionPhase	NumDays	60.00	0.00
tblConstructionPhase	NumDays	155.00	0.00
tblConstructionPhase	NumDays	1,550.00	0.00
tblConstructionPhase	NumDays	110.00	0.00
tblConstructionPhase	NumDays	110.00	0.00
tblConsumerProducts	ROG_EF	2.14E-05	1.62E-05
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	71.50	194.48
tblFireplaces	NumberWood	122.98	0.00
tblFleetMix	HHD	7.5250e-003	0.03
tblFleetMix	HHD	7.5250e-003	0.03
tblFleetMix	LDA	0.55	0.51
tblFleetMix	LDA	0.55	0.51
tblFleetMix	LDT1	0.06	0.04
tblFleetMix	LDT1	0.06	0.04
tblFleetMix	LDT2	0.19	0.24
tblFleetMix	LDT2	0.19	0.24
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD2	5.6970e-003	6.9000e-003

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	LHD2	5.6970e-003	6.9000e-003
tblFleetMix	MCY	0.03	3.8000e-003
tblFleetMix	MCY	0.03	3.8000e-003
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	2.7710e-003	7.0000e-004
tblFleetMix	MH	2.7710e-003	7.0000e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	9.7700e-004	1.9000e-003
tblFleetMix	OBUS	9.7700e-004	1.9000e-003
tblFleetMix	SBUS	8.4800e-004	6.0000e-004
tblFleetMix	SBUS	8.4800e-004	6.0000e-004
tblFleetMix	UBUS	5.4500e-004	2.0000e-003
tblFleetMix	UBUS	5.4500e-004	2.0000e-003
tblRoadDust	RoadSiltLoading	0.1	0.04
tblVehicleEF	HHD	0.02	0.22
tblVehicleEF	HHD	0.05	0.10
tblVehicleEF	HHD	6.27	5.17
tblVehicleEF	HHD	0.41	0.70
tblVehicleEF	HHD	6.3710e-003	2.6000e-003
tblVehicleEF	HHD	1,004.06	801.04
tblVehicleEF	HHD	1,354.95	1,557.46
tblVehicleEF	HHD	0.06	0.03
tblVehicleEF	HHD	0.16	0.13
tblVehicleEF	HHD	0.21	0.25
tblVehicleEF	HHD	4.0000e-006	0.00
tblVehicleEF	HHD	5.28	4.06
tblVehicleEF	HHD	2.64	1.74

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	HHD	2.35	2.76
tblVehicleEF	HHD	2.4410e-003	2.1000e-003
tblVehicleEF	HHD	0.06	0.08
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.03
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.3350e-003	2.0000e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8770e-003	8.8000e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.0000e-004
tblVehicleEF	HHD	9.1000e-005	0.00
tblVehicleEF	HHD	0.42	0.33
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	4.2000e-005	0.00
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	9.3420e-003	7.0000e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.0000e-004
tblVehicleEF	HHD	9.1000e-005	0.00
tblVehicleEF	HHD	0.49	0.58
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	0.08	0.12
tblVehicleEF	HHD	4.2000e-005	0.00
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	LDA	1.4280e-003	1.7000e-003

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	LDA	0.04	0.06
tblVehicleEF	LDA	0.47	0.57
tblVehicleEF	LDA	1.97	2.69
tblVehicleEF	LDA	223.37	239.68
tblVehicleEF	LDA	47.21	62.06
tblVehicleEF	LDA	3.6630e-003	3.8000e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.15	0.22
tblVehicleEF	LDA	0.04	6.9000e-003
tblVehicleEF	LDA	1.2310e-003	1.1000e-003
tblVehicleEF	LDA	1.5850e-003	1.8000e-003
tblVehicleEF	LDA	0.02	2.4000e-003
tblVehicleEF	LDA	1.1340e-003	1.0000e-003
tblVehicleEF	LDA	1.4570e-003	1.7000e-003
tblVehicleEF	LDA	0.03	0.27
tblVehicleEF	LDA	0.08	0.08
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	5.2050e-003	6.5000e-003
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.17	0.27
tblVehicleEF	LDA	2.2090e-003	2.4000e-003
tblVehicleEF	LDA	4.6700e-004	6.0000e-004
tblVehicleEF	LDA	0.03	0.27
tblVehicleEF	LDA	0.08	0.08
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	7.5590e-003	9.4000e-003
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.18	0.29

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	LDT1	2.7160e-003	4.8000e-003
tblVehicleEF	LDT1	0.05	0.10
tblVehicleEF	LDT1	0.69	1.15
tblVehicleEF	LDT1	2.13	4.75
tblVehicleEF	LDT1	268.54	318.88
tblVehicleEF	LDT1	57.26	83.52
tblVehicleEF	LDT1	4.8820e-003	7.9000e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.05	0.10
tblVehicleEF	LDT1	0.19	0.35
tblVehicleEF	LDT1	0.04	8.9000e-003
tblVehicleEF	LDT1	1.4670e-003	1.7000e-003
tblVehicleEF	LDT1	1.9150e-003	2.7000e-003
tblVehicleEF	LDT1	0.02	3.1000e-003
tblVehicleEF	LDT1	1.3490e-003	1.6000e-003
tblVehicleEF	LDT1	1.7600e-003	2.5000e-003
tblVehicleEF	LDT1	0.06	0.55
tblVehicleEF	LDT1	0.13	0.15
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.24	0.48
tblVehicleEF	LDT1	2.6570e-003	3.2000e-003
tblVehicleEF	LDT1	5.6700e-004	8.0000e-004
tblVehicleEF	LDT1	0.06	0.55
tblVehicleEF	LDT1	0.13	0.15
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.07	0.06

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	LDT1	0.26	0.53
tblVehicleEF	LDT2	2.3340e-003	2.3000e-003
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.62	0.70
tblVehicleEF	LDT2	2.55	3.27
tblVehicleEF	LDT2	282.66	327.56
tblVehicleEF	LDT2	60.66	83.09
tblVehicleEF	LDT2	4.8400e-003	5.2000e-003
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.05	0.05
tblVehicleEF	LDT2	0.21	0.29
tblVehicleEF	LDT2	0.04	8.5000e-003
tblVehicleEF	LDT2	1.2940e-003	1.3000e-003
tblVehicleEF	LDT2	1.6260e-003	2.0000e-003
tblVehicleEF	LDT2	0.02	3.0000e-003
tblVehicleEF	LDT2	1.1910e-003	1.2000e-003
tblVehicleEF	LDT2	1.4950e-003	1.8000e-003
tblVehicleEF	LDT2	0.05	0.27
tblVehicleEF	LDT2	0.10	0.07
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	9.0880e-003	8.8000e-003
tblVehicleEF	LDT2	0.06	0.03
tblVehicleEF	LDT2	0.24	0.33
tblVehicleEF	LDT2	2.7960e-003	3.2000e-003
tblVehicleEF	LDT2	6.0000e-004	8.0000e-004
tblVehicleEF	LDT2	0.05	0.27
tblVehicleEF	LDT2	0.10	0.07
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	0.01	0.01

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	LDT2	0.06	0.03
tblVehicleEF	LDT2	0.27	0.36
tblVehicleEF	LHD1	4.6270e-003	5.0000e-003
tblVehicleEF	LHD1	7.0990e-003	6.9000e-003
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.18	0.19
tblVehicleEF	LHD1	0.65	0.79
tblVehicleEF	LHD1	0.98	2.13
tblVehicleEF	LHD1	8.76	8.58
tblVehicleEF	LHD1	751.91	751.01
tblVehicleEF	LHD1	10.85	17.11
tblVehicleEF	LHD1	7.6700e-004	7.0000e-004
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.61	0.60
tblVehicleEF	LHD1	0.27	0.40
tblVehicleEF	LHD1	8.9800e-004	7.0000e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.8620e-003	9.5000e-003
tblVehicleEF	LHD1	9.7490e-003	0.01
tblVehicleEF	LHD1	2.2800e-004	2.0000e-004
tblVehicleEF	LHD1	8.5900e-004	7.0000e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.4660e-003	2.4000e-003
tblVehicleEF	LHD1	9.2820e-003	0.01
tblVehicleEF	LHD1	2.1000e-004	2.0000e-004
tblVehicleEF	LHD1	1.5700e-003	0.11
tblVehicleEF	LHD1	0.06	0.03

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.8800e-004	0.00
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	0.19	0.06
tblVehicleEF	LHD1	0.06	0.10
tblVehicleEF	LHD1	8.5000e-005	1.0000e-004
tblVehicleEF	LHD1	7.3340e-003	7.3000e-003
tblVehicleEF	LHD1	1.0700e-004	2.0000e-004
tblVehicleEF	LHD1	1.5700e-003	0.11
tblVehicleEF	LHD1	0.06	0.03
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	8.8800e-004	0.00
tblVehicleEF	LHD1	0.11	0.10
tblVehicleEF	LHD1	0.19	0.06
tblVehicleEF	LHD1	0.06	0.11
tblVehicleEF	LHD2	2.9160e-003	2.9000e-003
tblVehicleEF	LHD2	6.1070e-003	6.1000e-003
tblVehicleEF	LHD2	6.7420e-003	0.01
tblVehicleEF	LHD2	0.14	0.14
tblVehicleEF	LHD2	0.55	0.51
tblVehicleEF	LHD2	0.56	1.17
tblVehicleEF	LHD2	13.64	13.50
tblVehicleEF	LHD2	734.56	801.69
tblVehicleEF	LHD2	7.31	9.36
tblVehicleEF	LHD2	1.7140e-003	1.7000e-003
tblVehicleEF	LHD2	0.07	0.08
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.65	0.74

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	LHD2	0.16	0.22
tblVehicleEF	LHD2	1.4440e-003	1.4000e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1500e-004	1.0000e-004
tblVehicleEF	LHD2	1.3810e-003	1.3000e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6960e-003	2.7000e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.0600e-004	1.0000e-004
tblVehicleEF	LHD2	7.7100e-004	0.06
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.10	0.11
tblVehicleEF	LHD2	0.08	0.03
tblVehicleEF	LHD2	0.03	0.05
tblVehicleEF	LHD2	1.3000e-004	1.0000e-004
tblVehicleEF	LHD2	7.0910e-003	7.7000e-003
tblVehicleEF	LHD2	7.2000e-005	1.0000e-004
tblVehicleEF	LHD2	7.7100e-004	0.06
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	0.08	0.03
tblVehicleEF	LHD2	0.04	0.06
tblVehicleEF	MCY	0.34	0.16

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	MCY	0.26	0.18
tblVehicleEF	MCY	19.06	12.71
tblVehicleEF	MCY	9.18	8.12
tblVehicleEF	MCY	214.13	189.67
tblVehicleEF	MCY	60.78	48.24
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	7.9000e-003
tblVehicleEF	MCY	1.16	0.57
tblVehicleEF	MCY	0.27	0.13
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.1360e-003	2.0000e-003
tblVehicleEF	MCY	2.9960e-003	3.5000e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	1.9940e-003	1.9000e-003
tblVehicleEF	MCY	2.8130e-003	3.3000e-003
tblVehicleEF	MCY	0.82	2.01
tblVehicleEF	MCY	0.68	3.57
tblVehicleEF	MCY	0.47	0.00
tblVehicleEF	MCY	2.26	1.07
tblVehicleEF	MCY	0.52	1.34
tblVehicleEF	MCY	1.95	1.35
tblVehicleEF	MCY	2.1190e-003	1.9000e-003
tblVehicleEF	MCY	6.0100e-004	5.0000e-004
tblVehicleEF	MCY	0.82	2.01
tblVehicleEF	MCY	0.68	3.57
tblVehicleEF	MCY	0.47	0.00
tblVehicleEF	MCY	2.82	1.29
tblVehicleEF	MCY	0.52	1.34
tblVehicleEF	MCY	2.12	1.47

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	MDV	2.6160e-003	2.9000e-003
tblVehicleEF	MDV	0.06	0.09
tblVehicleEF	MDV	0.65	0.77
tblVehicleEF	MDV	2.71	3.47
tblVehicleEF	MDV	342.21	394.06
tblVehicleEF	MDV	72.46	99.44
tblVehicleEF	MDV	6.4950e-003	6.9000e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.05	0.07
tblVehicleEF	MDV	0.24	0.35
tblVehicleEF	MDV	0.04	8.6000e-003
tblVehicleEF	MDV	1.3400e-003	1.3000e-003
tblVehicleEF	MDV	1.6650e-003	2.0000e-003
tblVehicleEF	MDV	0.02	3.0000e-003
tblVehicleEF	MDV	1.2360e-003	1.2000e-003
tblVehicleEF	MDV	1.5300e-003	1.8000e-003
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.06	0.03
tblVehicleEF	MDV	0.29	0.42
tblVehicleEF	MDV	3.3820e-003	3.9000e-003
tblVehicleEF	MDV	7.1700e-004	1.0000e-003
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.06	0.03

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	MDV	0.31	0.46
tblVehicleEF	MH	7.5040e-003	9.5000e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.65	0.85
tblVehicleEF	MH	1.85	2.23
tblVehicleEF	MH	1,445.81	1,665.58
tblVehicleEF	MH	16.99	21.27
tblVehicleEF	MH	0.06	0.07
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.24	1.48
tblVehicleEF	MH	0.24	0.30
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	2.3400e-004	3.0000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2910e-003	3.3000e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	2.1500e-004	2.0000e-004
tblVehicleEF	MH	0.46	27.85
tblVehicleEF	MH	0.04	7.18
tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.05	0.07
tblVehicleEF	MH	9.9750e-003	1.8000e-003
tblVehicleEF	MH	0.08	0.10
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.6800e-004	2.0000e-004
tblVehicleEF	MH	0.46	27.85
tblVehicleEF	MH	0.04	7.18

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.07	0.09
tblVehicleEF	MH	9.9750e-003	1.8000e-003
tblVehicleEF	MH	0.09	0.11
tblVehicleEF	MHD	3.2370e-003	0.02
tblVehicleEF	MHD	1.2660e-003	0.01
tblVehicleEF	MHD	7.6930e-003	8.0000e-003
tblVehicleEF	MHD	0.39	0.67
tblVehicleEF	MHD	0.18	0.26
tblVehicleEF	MHD	0.86	0.94
tblVehicleEF	MHD	74.80	157.82
tblVehicleEF	MHD	1,030.19	1,201.02
tblVehicleEF	MHD	7.77	7.97
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.14	0.15
tblVehicleEF	MHD	6.4540e-003	5.7000e-003
tblVehicleEF	MHD	0.42	0.85
tblVehicleEF	MHD	1.44	0.90
tblVehicleEF	MHD	1.76	1.39
tblVehicleEF	MHD	2.8400e-004	1.4000e-003
tblVehicleEF	MHD	0.13	0.05
tblVehicleEF	MHD	6.9620e-003	9.2000e-003
tblVehicleEF	MHD	9.4000e-005	1.0000e-004
tblVehicleEF	MHD	2.7200e-004	1.3000e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	6.6550e-003	8.8000e-003
tblVehicleEF	MHD	8.7000e-005	1.0000e-004
tblVehicleEF	MHD	2.7500e-004	0.02
tblVehicleEF	MHD	0.01	5.4000e-003

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.6400e-004	0.00
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.04	0.04
tblVehicleEF	MHD	7.0900e-004	1.5000e-003
tblVehicleEF	MHD	9.8130e-003	0.01
tblVehicleEF	MHD	7.7000e-005	1.0000e-004
tblVehicleEF	MHD	2.7500e-004	0.02
tblVehicleEF	MHD	0.01	5.4000e-003
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	1.6400e-004	0.00
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.04	0.05
tblVehicleEF	OBUS	7.4600e-003	7.9000e-003
tblVehicleEF	OBUS	3.7150e-003	9.9000e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.64	0.55
tblVehicleEF	OBUS	0.44	0.47
tblVehicleEF	OBUS	1.91	1.92
tblVehicleEF	OBUS	98.77	87.86
tblVehicleEF	OBUS	1,310.39	1,398.41
tblVehicleEF	OBUS	15.57	15.73
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.12	0.15
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.41	0.36
tblVehicleEF	OBUS	1.40	0.98

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	OBUS	1.05	0.94
tblVehicleEF	OBUS	1.3800e-004	4.0000e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	7.7550e-003	0.02
tblVehicleEF	OBUS	1.6200e-004	2.0000e-004
tblVehicleEF	OBUS	1.3200e-004	4.0000e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.4050e-003	0.02
tblVehicleEF	OBUS	1.4900e-004	1.0000e-004
tblVehicleEF	OBUS	1.1690e-003	0.07
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	5.6100e-004	0.00
tblVehicleEF	OBUS	0.02	0.05
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	OBUS	9.3800e-004	8.0000e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.5400e-004	2.0000e-004
tblVehicleEF	OBUS	1.1690e-003	0.07
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.06
tblVehicleEF	OBUS	5.6100e-004	0.00
tblVehicleEF	OBUS	0.03	0.07
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	SBUS	0.05	0.09
tblVehicleEF	SBUS	4.4970e-003	0.12
tblVehicleEF	SBUS	4.3720e-003	4.4000e-003

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	SBUS	2.25	1.62
tblVehicleEF	SBUS	0.37	0.89
tblVehicleEF	SBUS	0.63	0.60
tblVehicleEF	SBUS	329.49	186.62
tblVehicleEF	SBUS	995.87	1,016.57
tblVehicleEF	SBUS	3.65	3.44
tblVehicleEF	SBUS	0.05	0.03
tblVehicleEF	SBUS	0.13	0.13
tblVehicleEF	SBUS	4.3250e-003	4.1000e-003
tblVehicleEF	SBUS	2.82	1.24
tblVehicleEF	SBUS	3.55	2.07
tblVehicleEF	SBUS	1.17	0.52
tblVehicleEF	SBUS	2.4110e-003	1.0000e-003
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	5.1000e-005	0.00
tblVehicleEF	SBUS	2.3070e-003	1.0000e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.7340e-003	2.6000e-003
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	4.6000e-005	0.00
tblVehicleEF	SBUS	4.2500e-004	0.03
tblVehicleEF	SBUS	4.3060e-003	7.2000e-003
tblVehicleEF	SBUS	0.23	0.17
tblVehicleEF	SBUS	2.0200e-004	0.00
tblVehicleEF	SBUS	0.06	0.05
tblVehicleEF	SBUS	8.4100e-003	8.2000e-003
tblVehicleEF	SBUS	0.02	0.02

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	SBUS	3.1350e-003	1.7000e-003
tblVehicleEF	SBUS	9.5060e-003	9.3000e-003
tblVehicleEF	SBUS	3.6000e-005	0.00
tblVehicleEF	SBUS	4.2500e-004	0.03
tblVehicleEF	SBUS	4.3060e-003	7.2000e-003
tblVehicleEF	SBUS	0.34	0.30
tblVehicleEF	SBUS	2.0200e-004	0.00
tblVehicleEF	SBUS	0.08	0.18
tblVehicleEF	SBUS	8.4100e-003	8.2000e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	UBUS	1.41	0.43
tblVehicleEF	UBUS	5.4030e-003	0.01
tblVehicleEF	UBUS	10.60	5.04
tblVehicleEF	UBUS	0.42	1.38
tblVehicleEF	UBUS	1,648.04	1,186.45
tblVehicleEF	UBUS	4.37	10.21
tblVehicleEF	UBUS	0.27	0.17
tblVehicleEF	UBUS	3.9020e-003	0.01
tblVehicleEF	UBUS	0.69	0.29
tblVehicleEF	UBUS	0.04	0.10
tblVehicleEF	UBUS	0.07	0.11
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	5.0840e-003	5.4000e-003
tblVehicleEF	UBUS	4.3000e-005	1.0000e-004
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	7.8890e-003	7.2000e-003
tblVehicleEF	UBUS	4.8600e-003	5.2000e-003
tblVehicleEF	UBUS	3.9000e-005	1.0000e-004
tblVehicleEF	UBUS	2.1300e-004	0.02

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	UBUS	3.2570e-003	7.5000e-003
tblVehicleEF	UBUS	1.4100e-004	0.00
tblVehicleEF	UBUS	0.02	0.06
tblVehicleEF	UBUS	8.4800e-004	9.0000e-004
tblVehicleEF	UBUS	0.02	0.04
tblVehicleEF	UBUS	0.01	9.9000e-003
tblVehicleEF	UBUS	4.3000e-005	1.0000e-004
tblVehicleEF	UBUS	2.1300e-004	0.02
tblVehicleEF	UBUS	3.2570e-003	7.5000e-003
tblVehicleEF	UBUS	1.4100e-004	0.00
tblVehicleEF	UBUS	1.44	0.49
tblVehicleEF	UBUS	8.4800e-004	9.0000e-004
tblVehicleEF	UBUS	0.03	0.05
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	9.54	9.43
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	8.55	9.43
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.44	9.43
tblWoodstoves	WoodstoveWoodMass	956.80	0.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

Provide Traffic Calming Measures

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.8942	1.3325	7.9345	0.0235	0.9544	0.0183	0.9727	0.2433	0.0171	0.2605						
Unmitigated	0.8997	1.3763	8.1784	0.0247	1.0047	0.0191	1.0238	0.2561	0.0179	0.2741						

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Single Family Housing	2,696.98	2,696.98	2696.98	6,228,965	5,917,516
Total	2,696.98	2,696.98	2,696.98	6,228,965	5,917,516

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.511500	0.037300	0.235600	0.132400	0.028400	0.006900	0.013300	0.025600	0.001900	0.002000	0.003800	0.000600	0.000700
Single Family Housing	0.511500	0.037300	0.235600	0.132400	0.028400	0.006900	0.013300	0.025600	0.001900	0.002000	0.003800	0.000600	0.000700

5.0 Energy Detail

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000						
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						
NaturalGas Mitigated	0.0411	0.3509	0.1493	2.2400e-003		0.0284	0.0284		0.0284	0.0284						
NaturalGas Unmitigated	0.0411	0.3509	0.1493	2.2400e-003		0.0284	0.0284		0.0284	0.0284						

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Single Family Housing	7.61605e+006	0.0411	0.3509	0.1493	2.2400e-003		0.0284	0.0284		0.0284	0.0284						
Total		**0.0411**	**0.3509**	**0.1493**	**2.2400e-003**		**0.0284**	**0.0284**		**0.0284**	**0.0284**						

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Single Family Housing	7.61605e+006	0.0411	0.3509	0.1493	2.2400e-003		0.0284	0.0284		0.0284	0.0284						
Total		**0.0411**	**0.3509**	**0.1493**	**2.2400e-003**		**0.0284**	**0.0284**		**0.0284**	**0.0284**						

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0				
Single Family Housing	2.2403e +006				
Total					

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0				
Single Family Housing	2.19222e +006				
Total					

6.0 Area Detail

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.9523	0.0454	2.1305	2.5000e-004		0.0135	0.0135		0.0135	0.0135						
Unmitigated	1.9523	0.0454	2.1305	2.5000e-004		0.0135	0.0135		0.0135	0.0135						

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3624					0.0000	0.0000		0.0000	0.0000						
Consumer Products	1.5238					0.0000	0.0000		0.0000	0.0000						
Hearth	2.4500e-003	0.0210	8.9200e-003	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003						
Landscaping	0.0637	0.0244	2.1216	1.1000e-004		0.0118	0.0118		0.0118	0.0118						
Total	**1.9523**	**0.0454**	**2.1305**	**2.4000e-004**		**0.0135**	**0.0135**		**0.0135**	**0.0135**						

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3624					0.0000	0.0000		0.0000	0.0000						
Consumer Products	1.5238					0.0000	0.0000		0.0000	0.0000						
Hearth	2.4500e-003	0.0210	8.9200e-003	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003						
Landscaping	0.0637	0.0244	2.1216	1.1000e-004		0.0118	0.0118		0.0118	0.0118						
Total	**1.9523**	**0.0454**	**2.1305**	**2.4000e-004**		**0.0135**	**0.0135**		**0.0135**	**0.0135**						

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				
Unmitigated				

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 5.12337				
Single Family Housing	18.6341 / 11.7476				
Total					

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 4.0987				
Single Family Housing	18.6341 / 9.39804				
Total					

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				
Unmitigated				

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.37				
Single Family Housing	343.56				
Total					

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.185				
Single Family Housing	171.78				
Total					

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Bridle Gate

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	4.30	Acre	4.30	187,308.00	0
Single Family Housing	286.00	Dwelling Unit	92.86	514,800.00	818

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	145	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor is based on 2016-2018 historical PG&E data, projected to 60% renewables consistent with California RPS for 2030.

Land Use -

Construction Phase - Operational-only run.

Grading -

Vehicle Trips - Project specific.

Vehicle Emission Factors - Updated to EMFAC2021 emission factors, which incorporate newer regulations and projections than the default EMFAC2017 factors.

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No wood-burning devices per BAAQMD Regulation 6, Rule 3.

Mobile Land Use Mitigation -

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Fleet Mix - Updated to EMFAC2021 fleet mix which incorporates newer regulations and projections than the default EMFAC2017 fleet mix.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	0.00
tblConstructionPhase	NumDays	60.00	0.00
tblConstructionPhase	NumDays	155.00	0.00
tblConstructionPhase	NumDays	1,550.00	0.00
tblConstructionPhase	NumDays	110.00	0.00
tblConstructionPhase	NumDays	110.00	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	71.50	194.48
tblFireplaces	NumberWood	122.98	0.00
tblFleetMix	HHD	7.4300e-003	0.03
tblFleetMix	HHD	7.4300e-003	0.03
tblFleetMix	LDA	0.56	0.50
tblFleetMix	LDA	0.56	0.50
tblFleetMix	LDT1	0.06	0.03
tblFleetMix	LDT1	0.06	0.03
tblFleetMix	LDT2	0.19	0.24
tblFleetMix	LDT2	0.19	0.24
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD2	5.8250e-003	7.0630e-003
tblFleetMix	LHD2	5.8250e-003	7.0630e-003
tblFleetMix	MCY	0.03	3.6790e-003
tblFleetMix	MCY	0.03	3.6790e-003

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	MDV	0.12	0.14
tblFleetMix	MDV	0.12	0.14
tblFleetMix	MH	2.6380e-003	6.4900e-004
tblFleetMix	MH	2.6380e-003	6.4900e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	9.5200e-004	1.8340e-003
tblFleetMix	OBUS	9.5200e-004	1.8340e-003
tblFleetMix	SBUS	8.7500e-004	5.7000e-004
tblFleetMix	SBUS	8.7500e-004	5.7000e-004
tblFleetMix	UBUS	5.0500e-004	1.9250e-003
tblFleetMix	UBUS	5.0500e-004	1.9250e-003
tblProjectCharacteristics	CO2IntensityFactor	203.98	145
tblVehicleEF	HHD	0.02	0.20
tblVehicleEF	HHD	0.05	0.08
tblVehicleEF	HHD	6.22	5.02
tblVehicleEF	HHD	0.41	0.60
tblVehicleEF	HHD	6.5970e-003	1.8390e-003
tblVehicleEF	HHD	920.46	725.42
tblVehicleEF	HHD	1,226.16	1,400.40
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	0.15	0.12
tblVehicleEF	HHD	0.19	0.22
tblVehicleEF	HHD	2.0000e-006	1.0000e-006
tblVehicleEF	HHD	5.15	3.85
tblVehicleEF	HHD	2.51	1.47
tblVehicleEF	HHD	2.35	2.62
tblVehicleEF	HHD	2.1390e-003	1.7810e-003
tblVehicleEF	HHD	0.06	0.08

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0460e-003	1.6970e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8850e-003	8.8120e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	4.8000e-005
tblVehicleEF	HHD	7.1000e-005	1.4000e-005
tblVehicleEF	HHD	0.42	0.31
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	3.2000e-005	1.5000e-005
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	8.5600e-003	6.2820e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	1.0000e-006	4.8000e-005
tblVehicleEF	HHD	7.1000e-005	1.4000e-005
tblVehicleEF	HHD	0.48	0.54
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	0.07	0.09
tblVehicleEF	HHD	3.2000e-005	1.5000e-005
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	LDA	9.9700e-004	1.2860e-003
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	0.40	0.48
tblVehicleEF	LDA	1.73	2.19
tblVehicleEF	LDA	202.37	221.67

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	LDA	42.52	56.96
tblVehicleEF	LDA	3.2370e-003	3.2390e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.13	0.19
tblVehicleEF	LDA	0.04	6.8780e-003
tblVehicleEF	LDA	9.4400e-004	8.5800e-004
tblVehicleEF	LDA	1.2860e-003	1.5130e-003
tblVehicleEF	LDA	0.02	2.4070e-003
tblVehicleEF	LDA	8.6900e-004	7.8900e-004
tblVehicleEF	LDA	1.1830e-003	1.3910e-003
tblVehicleEF	LDA	0.02	0.24
tblVehicleEF	LDA	0.07	0.06
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	3.3990e-003	4.4970e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.12	0.21
tblVehicleEF	LDA	2.0020e-003	2.1910e-003
tblVehicleEF	LDA	4.2100e-004	5.6300e-004
tblVehicleEF	LDA	0.02	0.24
tblVehicleEF	LDA	0.07	0.06
tblVehicleEF	LDA	0.02	0.00
tblVehicleEF	LDA	4.9360e-003	6.5550e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.14	0.23
tblVehicleEF	LDT1	1.6590e-003	3.1520e-003
tblVehicleEF	LDT1	0.04	0.07
tblVehicleEF	LDT1	0.52	0.86
tblVehicleEF	LDT1	1.86	3.59

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	LDT1	244.39	298.21
tblVehicleEF	LDT1	51.84	76.89
tblVehicleEF	LDT1	3.7700e-003	5.7850e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.03	0.06
tblVehicleEF	LDT1	0.16	0.28
tblVehicleEF	LDT1	0.04	8.8350e-003
tblVehicleEF	LDT1	1.0830e-003	1.2680e-003
tblVehicleEF	LDT1	1.4820e-003	2.1200e-003
tblVehicleEF	LDT1	0.02	3.0920e-003
tblVehicleEF	LDT1	9.9600e-004	1.1660e-003
tblVehicleEF	LDT1	1.3630e-003	1.9490e-003
tblVehicleEF	LDT1	0.04	0.49
tblVehicleEF	LDT1	0.10	0.13
tblVehicleEF	LDT1	0.04	0.00
tblVehicleEF	LDT1	6.4090e-003	0.01
tblVehicleEF	LDT1	0.06	0.05
tblVehicleEF	LDT1	0.16	0.36
tblVehicleEF	LDT1	2.4180e-003	2.9480e-003
tblVehicleEF	LDT1	5.1300e-004	7.6000e-004
tblVehicleEF	LDT1	0.04	0.49
tblVehicleEF	LDT1	0.10	0.13
tblVehicleEF	LDT1	0.04	0.00
tblVehicleEF	LDT1	9.3510e-003	0.02
tblVehicleEF	LDT1	0.06	0.05
tblVehicleEF	LDT1	0.18	0.39
tblVehicleEF	LDT2	1.6620e-003	1.8110e-003
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.53	0.61

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	LDT2	2.28	2.75
tblVehicleEF	LDT2	251.38	305.83
tblVehicleEF	LDT2	53.69	77.01
tblVehicleEF	LDT2	3.9670e-003	4.3960e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.17	0.25
tblVehicleEF	LDT2	0.04	8.5030e-003
tblVehicleEF	LDT2	1.0370e-003	9.9800e-004
tblVehicleEF	LDT2	1.3450e-003	1.6510e-003
tblVehicleEF	LDT2	0.02	2.9760e-003
tblVehicleEF	LDT2	9.5500e-004	9.1800e-004
tblVehicleEF	LDT2	1.2370e-003	1.5180e-003
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.09	0.06
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	6.2060e-003	6.5390e-003
tblVehicleEF	LDT2	0.05	0.02
tblVehicleEF	LDT2	0.18	0.27
tblVehicleEF	LDT2	2.4870e-003	3.0230e-003
tblVehicleEF	LDT2	5.3100e-004	7.6100e-004
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.09	0.06
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	9.0140e-003	9.5270e-003
tblVehicleEF	LDT2	0.05	0.02
tblVehicleEF	LDT2	0.20	0.29
tblVehicleEF	LHD1	4.1460e-003	4.3490e-003
tblVehicleEF	LHD1	5.4760e-003	4.4200e-003

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	LHD1	9.1240e-003	0.02
tblVehicleEF	LHD1	0.18	0.18
tblVehicleEF	LHD1	0.50	0.57
tblVehicleEF	LHD1	0.89	2.04
tblVehicleEF	LHD1	8.34	7.93
tblVehicleEF	LHD1	702.21	673.99
tblVehicleEF	LHD1	10.04	15.86
tblVehicleEF	LHD1	7.4600e-004	6.1300e-004
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.37	0.38
tblVehicleEF	LHD1	0.23	0.33
tblVehicleEF	LHD1	9.2900e-004	6.9300e-004
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	9.9180e-003	9.3880e-003
tblVehicleEF	LHD1	7.8050e-003	0.01
tblVehicleEF	LHD1	2.1000e-004	1.3500e-004
tblVehicleEF	LHD1	8.8900e-004	6.6300e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.4790e-003	2.3470e-003
tblVehicleEF	LHD1	7.4230e-003	0.01
tblVehicleEF	LHD1	1.9300e-004	1.2400e-004
tblVehicleEF	LHD1	1.3190e-003	0.09
tblVehicleEF	LHD1	0.06	0.02
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	7.7900e-004	0.00
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.19	0.05

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	LHD1	0.04	0.08
tblVehicleEF	LHD1	8.1000e-005	7.7000e-005
tblVehicleEF	LHD1	6.8460e-003	6.5750e-003
tblVehicleEF	LHD1	9.9000e-005	1.5700e-004
tblVehicleEF	LHD1	1.3190e-003	0.09
tblVehicleEF	LHD1	0.06	0.02
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	7.7900e-004	0.00
tblVehicleEF	LHD1	0.09	0.07
tblVehicleEF	LHD1	0.19	0.05
tblVehicleEF	LHD1	0.05	0.09
tblVehicleEF	LHD2	2.5800e-003	2.4290e-003
tblVehicleEF	LHD2	5.3930e-003	4.6200e-003
tblVehicleEF	LHD2	5.0230e-003	8.4820e-003
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	0.50	0.40
tblVehicleEF	LHD2	0.49	1.05
tblVehicleEF	LHD2	13.05	12.64
tblVehicleEF	LHD2	686.39	723.18
tblVehicleEF	LHD2	6.59	8.16
tblVehicleEF	LHD2	1.6650e-003	1.5860e-003
tblVehicleEF	LHD2	0.06	0.07
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.08	0.07
tblVehicleEF	LHD2	0.42	0.52
tblVehicleEF	LHD2	0.13	0.18
tblVehicleEF	LHD2	1.4850e-003	1.3590e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.0500e-004	5.3000e-005
tblVehicleEF	LHD2	1.4200e-003	1.3000e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7080e-003	2.6360e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	9.7000e-005	4.9000e-005
tblVehicleEF	LHD2	6.0600e-004	0.05
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.8500e-004	0.00
tblVehicleEF	LHD2	0.10	0.09
tblVehicleEF	LHD2	0.06	0.02
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	1.2500e-004	1.2100e-004
tblVehicleEF	LHD2	6.6220e-003	6.9580e-003
tblVehicleEF	LHD2	6.5000e-005	8.1000e-005
tblVehicleEF	LHD2	6.0600e-004	0.05
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.8500e-004	0.00
tblVehicleEF	LHD2	0.11	0.10
tblVehicleEF	LHD2	0.06	0.02
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	MCY	0.33	0.15
tblVehicleEF	MCY	0.25	0.16
tblVehicleEF	MCY	18.37	11.52
tblVehicleEF	MCY	9.28	8.00
tblVehicleEF	MCY	213.76	187.95

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	MCY	59.74	44.45
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	6.7530e-003
tblVehicleEF	MCY	1.15	0.53
tblVehicleEF	MCY	0.27	0.11
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.2080e-003	2.0290e-003
tblVehicleEF	MCY	2.8780e-003	3.4260e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	2.0600e-003	1.8950e-003
tblVehicleEF	MCY	2.6930e-003	3.2080e-003
tblVehicleEF	MCY	0.81	1.92
tblVehicleEF	MCY	0.64	3.57
tblVehicleEF	MCY	0.46	0.00
tblVehicleEF	MCY	2.22	0.95
tblVehicleEF	MCY	0.45	1.38
tblVehicleEF	MCY	1.91	1.20
tblVehicleEF	MCY	2.1150e-003	1.8580e-003
tblVehicleEF	MCY	5.9100e-004	4.3900e-004
tblVehicleEF	MCY	0.81	1.92
tblVehicleEF	MCY	0.64	3.57
tblVehicleEF	MCY	0.46	0.00
tblVehicleEF	MCY	2.78	1.16
tblVehicleEF	MCY	0.45	1.38
tblVehicleEF	MCY	2.08	1.31
tblVehicleEF	MDV	1.7560e-003	2.0620e-003
tblVehicleEF	MDV	0.04	0.07
tblVehicleEF	MDV	0.53	0.64
tblVehicleEF	MDV	2.33	2.84

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	MDV	303.99	365.71
tblVehicleEF	MDV	63.72	91.59
tblVehicleEF	MDV	5.2880e-003	5.3980e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.03	0.05
tblVehicleEF	MDV	0.18	0.28
tblVehicleEF	MDV	0.04	8.5500e-003
tblVehicleEF	MDV	1.0420e-003	9.8000e-004
tblVehicleEF	MDV	1.3490e-003	1.6140e-003
tblVehicleEF	MDV	0.02	2.9930e-003
tblVehicleEF	MDV	9.6000e-004	9.0300e-004
tblVehicleEF	MDV	1.2400e-003	1.4840e-003
tblVehicleEF	MDV	0.05	0.28
tblVehicleEF	MDV	0.10	0.07
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	6.7610e-003	7.9130e-003
tblVehicleEF	MDV	0.05	0.03
tblVehicleEF	MDV	0.20	0.31
tblVehicleEF	MDV	3.0040e-003	3.6130e-003
tblVehicleEF	MDV	6.3100e-004	9.0500e-004
tblVehicleEF	MDV	0.05	0.28
tblVehicleEF	MDV	0.10	0.07
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	9.7950e-003	0.01
tblVehicleEF	MDV	0.05	0.03
tblVehicleEF	MDV	0.22	0.34
tblVehicleEF	MH	5.0570e-003	6.1360e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.32	0.38

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	MH	1.63	1.90
tblVehicleEF	MH	1,351.69	1,649.67
tblVehicleEF	MH	15.45	19.86
tblVehicleEF	MH	0.05	0.07
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.09	1.32
tblVehicleEF	MH	0.24	0.30
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.0900e-004	2.3000e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.3000e-003	3.3430e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.9300e-004	2.1100e-004
tblVehicleEF	MH	0.31	19.83
tblVehicleEF	MH	0.03	4.82
tblVehicleEF	MH	0.13	0.00
tblVehicleEF	MH	0.04	0.05
tblVehicleEF	MH	5.4940e-003	1.1980e-003
tblVehicleEF	MH	0.07	0.09
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.5300e-004	1.9600e-004
tblVehicleEF	MH	0.31	19.83
tblVehicleEF	MH	0.03	4.82
tblVehicleEF	MH	0.13	0.00
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	5.4940e-003	1.1980e-003
tblVehicleEF	MH	0.08	0.10

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	MHD	3.2270e-003	0.02
tblVehicleEF	MHD	9.3800e-004	0.01
tblVehicleEF	MHD	7.0270e-003	6.4350e-003
tblVehicleEF	MHD	0.40	0.63
tblVehicleEF	MHD	0.15	0.16
tblVehicleEF	MHD	0.73	0.70
tblVehicleEF	MHD	70.46	145.62
tblVehicleEF	MHD	968.31	1,077.81
tblVehicleEF	MHD	7.11	6.60
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.13	0.14
tblVehicleEF	MHD	6.4400e-003	4.6530e-003
tblVehicleEF	MHD	0.38	0.74
tblVehicleEF	MHD	1.43	0.60
tblVehicleEF	MHD	1.78	1.23
tblVehicleEF	MHD	1.6900e-004	6.3500e-004
tblVehicleEF	MHD	0.13	0.04
tblVehicleEF	MHD	6.9630e-003	5.3070e-003
tblVehicleEF	MHD	9.0000e-005	7.7000e-005
tblVehicleEF	MHD	1.6100e-004	6.0700e-004
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	6.6560e-003	5.0700e-003
tblVehicleEF	MHD	8.3000e-005	7.1000e-005
tblVehicleEF	MHD	2.2800e-004	0.02
tblVehicleEF	MHD	0.01	3.6090e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.4600e-004	0.00
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.01	9.4520e-003

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	6.6800e-004	1.3380e-003
tblVehicleEF	MHD	9.2240e-003	0.01
tblVehicleEF	MHD	7.0000e-005	6.5000e-005
tblVehicleEF	MHD	2.2800e-004	0.02
tblVehicleEF	MHD	0.01	3.6090e-003
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	1.4600e-004	0.00
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.01	9.4520e-003
tblVehicleEF	MHD	0.04	0.04
tblVehicleEF	OBUS	7.3320e-003	7.7890e-003
tblVehicleEF	OBUS	2.4610e-003	0.01
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.69	0.57
tblVehicleEF	OBUS	0.29	0.32
tblVehicleEF	OBUS	1.68	1.57
tblVehicleEF	OBUS	102.80	91.68
tblVehicleEF	OBUS	1,219.51	1,293.30
tblVehicleEF	OBUS	14.05	13.22
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.12	0.15
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.46	0.34
tblVehicleEF	OBUS	1.41	0.89
tblVehicleEF	OBUS	1.11	0.91
tblVehicleEF	OBUS	1.5300e-004	3.1200e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	8.0870e-003	0.01

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	OBUS	1.5700e-004	1.3000e-004
tblVehicleEF	OBUS	1.4600e-004	2.9900e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.7230e-003	0.01
tblVehicleEF	OBUS	1.4500e-004	1.2000e-004
tblVehicleEF	OBUS	1.0910e-003	0.07
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	5.3900e-004	0.00
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	9.7600e-004	8.6400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.3900e-004	1.3100e-004
tblVehicleEF	OBUS	1.0910e-003	0.07
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.07	0.06
tblVehicleEF	OBUS	5.3900e-004	0.00
tblVehicleEF	OBUS	0.02	0.05
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.09	0.08
tblVehicleEF	SBUS	0.06	0.09
tblVehicleEF	SBUS	3.4080e-003	0.12
tblVehicleEF	SBUS	4.8910e-003	4.5310e-003
tblVehicleEF	SBUS	2.56	1.70
tblVehicleEF	SBUS	0.29	0.73
tblVehicleEF	SBUS	0.68	0.59
tblVehicleEF	SBUS	316.42	179.94

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	SBUS	936.84	950.92
tblVehicleEF	SBUS	3.97	3.50
tblVehicleEF	SBUS	0.04	0.02
tblVehicleEF	SBUS	0.12	0.12
tblVehicleEF	SBUS	4.9690e-003	4.4020e-003
tblVehicleEF	SBUS	2.32	1.05
tblVehicleEF	SBUS	2.57	1.45
tblVehicleEF	SBUS	1.41	0.53
tblVehicleEF	SBUS	1.5510e-003	7.0100e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.02	8.2170e-003
tblVehicleEF	SBUS	5.9000e-005	4.4000e-005
tblVehicleEF	SBUS	1.4840e-003	6.6900e-004
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.7130e-003	2.6220e-003
tblVehicleEF	SBUS	0.02	7.8430e-003
tblVehicleEF	SBUS	5.4000e-005	4.1000e-005
tblVehicleEF	SBUS	5.4600e-004	0.03
tblVehicleEF	SBUS	5.4730e-003	7.8400e-003
tblVehicleEF	SBUS	0.26	0.18
tblVehicleEF	SBUS	2.7600e-004	0.00
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	0.01	9.9350e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	3.0130e-003	1.5920e-003
tblVehicleEF	SBUS	8.9520e-003	8.7240e-003
tblVehicleEF	SBUS	3.9000e-005	3.5000e-005
tblVehicleEF	SBUS	5.4600e-004	0.03

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	SBUS	5.4730e-003	7.8400e-003
tblVehicleEF	SBUS	0.38	0.31
tblVehicleEF	SBUS	2.7600e-004	0.00
tblVehicleEF	SBUS	0.06	0.16
tblVehicleEF	SBUS	0.01	9.9350e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	UBUS	1.76	0.56
tblVehicleEF	UBUS	4.9700e-003	8.9120e-003
tblVehicleEF	UBUS	13.30	6.48
tblVehicleEF	UBUS	0.42	1.32
tblVehicleEF	UBUS	1,631.09	945.26
tblVehicleEF	UBUS	4.00	9.39
tblVehicleEF	UBUS	0.27	0.13
tblVehicleEF	UBUS	3.6960e-003	0.01
tblVehicleEF	UBUS	0.68	0.21
tblVehicleEF	UBUS	0.04	0.08
tblVehicleEF	UBUS	0.07	0.10
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	4.9500e-003	4.0530e-003
tblVehicleEF	UBUS	5.0000e-005	5.7000e-005
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	7.8890e-003	7.1590e-003
tblVehicleEF	UBUS	4.7320e-003	3.8700e-003
tblVehicleEF	UBUS	4.6000e-005	5.2000e-005
tblVehicleEF	UBUS	1.4800e-004	0.02
tblVehicleEF	UBUS	1.8210e-003	5.0980e-003
tblVehicleEF	UBUS	8.8000e-005	0.00
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	3.8300e-004	8.3800e-004

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	UBUS	0.02	0.03
tblVehicleEF	UBUS	0.01	7.3210e-003
tblVehicleEF	UBUS	4.0000e-005	9.3000e-005
tblVehicleEF	UBUS	1.4800e-004	0.02
tblVehicleEF	UBUS	1.8210e-003	5.0980e-003
tblVehicleEF	UBUS	8.8000e-005	0.00
tblVehicleEF	UBUS	1.79	0.61
tblVehicleEF	UBUS	3.8300e-004	8.3800e-004
tblVehicleEF	UBUS	0.02	0.04
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	9.54	9.43
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	8.55	9.43
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.44	9.43
tblWoodstoves	WoodstoveWoodMass	956.80	0.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022								0.0000			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2023								0.0000			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2029								0.0000			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum								**0.0000**			**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022								0.0000			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2023								0.0000			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2029								0.0000			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum								**0.0000**			**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	27.7477	27.7477	3.7700e-003	4.5000e-004	27.9746
Energy											0.0000	553.7679	553.7679	0.0413	0.0115	558.2327
Mobile								0.5293			0.0000	2,122.1181	2,122.1181	0.0902	0.1154	2,158.7598
Waste											69.8147	0.0000	69.8147	4.1259	0.0000	172.9629
Water											5.9117	10.5153	16.4270	0.6096	0.0146	36.0255
Total								**0.5293**			**75.7264**	**2,714.1489**	**2,789.8753**	**4.8708**	**0.1420**	**2,953.9555**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	27.7477	27.7477	3.7700e-003	4.5000e-004	27.9746
Energy											0.0000	550.6057	550.6057	0.0406	0.0114	555.0265
Mobile								0.5029			0.0000	2,020.1680	2,020.1680	0.0885	0.1111	2,055.4969
Waste											34.9073	0.0000	34.9073	2.0630	0.0000	86.4815
Water											5.9117	9.7385	15.6503	0.6094	0.0146	35.2379
Total								**0.5029**			**40.8191**	**2,608.2599**	**2,649.0790**	**2.8052**	**0.1376**	**2,760.2173**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**5.00**	**0.00**	**0.00**	**46.10**	**3.90**	**5.05**	**42.41**	**3.08**	**6.56**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/18/2022	1/17/2022	5	0	
2	Site Preparation	Site Preparation	6/7/2022	6/6/2022	5	0	
3	Grading	Grading	8/30/2022	8/29/2022	5	0	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

Provide Traffic Calming Measures

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated								0.5029			0.0000	2,020.1680	2,020.1680	0.0885	0.1111	2,055.4969
Unmitigated								0.5293			0.0000	2,122.1181	2,122.1181	0.0902	0.1154	2,158.7598

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Single Family Housing	2,696.98	2,696.98	2696.98	6,228,965	5,917,516
Total	2,696.98	2,696.98	2,696.98	6,228,965	5,917,516

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.503199	0.033580	0.242046	0.137254	0.028686	0.007063	0.013389	0.026125	0.001834	0.001925	0.003679	0.000570	0.000649
Single Family Housing	0.503199	0.033580	0.242046	0.137254	0.028686	0.007063	0.013389	0.026125	0.001834	0.001925	0.003679	0.000570	0.000649

5.0 Energy Detail

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated											0.0000	144.1844	144.1844	0.0328	3.9800e-003	146.1900
Electricity Unmitigated											0.0000	147.3466	147.3466	0.0335	4.0600e-003	149.3962
NaturalGas Mitigated											0.0000	406.4214	406.4214	7.7900e-003	7.4500e-003	408.8365
NaturalGas Unmitigated											0.0000	406.4214	406.4214	7.7900e-003	7.4500e-003	408.8365

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	7.61605e+006											0.0000	406.4214	406.4214	7.7900e-003	7.4500e-003	408.8365
Total												**0.0000**	**406.4214**	**406.4214**	**7.7900e-003**	**7.4500e-003**	**408.8365**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	7.61605e+006											0.0000	406.4214	406.4214	7.7900e-003	7.4500e-003	408.8365
Total												**0.0000**	**406.4214**	**406.4214**	**7.7900e-003**	**7.4500e-003**	**408.8365**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.2403e+006	147.3466	0.0335	4.0600e-003	149.3962
Total		**147.3466**	**0.0335**	**4.0600e-003**	**149.3962**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.19222e+006	144.1844	0.0328	3.9800e-003	146.1900
Total		**144.1844**	**0.0328**	**3.9800e-003**	**146.1900**

6.0 Area Detail

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	27.7477	27.7477	3.7700e-003	4.5000e-004	27.9746
Unmitigated											0.0000	27.7477	27.7477	3.7700e-003	4.5000e-004	27.9746

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth											0.0000	24.2788	24.2788	4.7000e-004	4.5000e-004	24.4230
Landscaping											0.0000	3.4689	3.4689	3.3100e-003	0.0000	3.5515
Total											**0.0000**	**27.7477**	**27.7477**	**3.7800e-003**	**4.5000e-004**	**27.9746**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth											0.0000	24.2788	24.2788	4.7000e-004	4.5000e-004	24.4230
Landscaping											0.0000	3.4689	3.4689	3.3100e-003	0.0000	3.5515
Total											**0.0000**	**27.7477**	**27.7477**	**3.7800e-003**	**4.5000e-004**	**27.9746**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	15.6503	0.6094	0.0146	35.2379
Unmitigated	16.4270	0.6096	0.0146	36.0255

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 5.12337	1.1794	2.7000e-004	3.0000e-005	1.1958
Single Family Housing	18.6341 / 11.7476	15.2476	0.6093	0.0146	34.8297
Total		**16.4270**	**0.6096**	**0.0146**	**36.0255**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 4.0987	0.9435	2.1000e-004	3.0000e-005	0.9566
Single Family Housing	18.6341 / 9.39804	14.7067	0.6092	0.0146	34.2813
Total		**15.6503**	**0.6094**	**0.0146**	**35.2380**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	34.9073	2.0630	0.0000	86.4815
Unmitigated	69.8147	4.1259	0.0000	172.9629

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.37	0.0751	4.4400e-003	0.0000	0.1861
Single Family Housing	343.56	69.7396	4.1215	0.0000	172.7769
Total		**69.8147**	**4.1259**	**0.0000**	**172.9629**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.185	0.0376	2.2200e-003	0.0000	0.0930
Single Family Housing	171.78	34.8698	2.0608	0.0000	86.3884
Total		**34.9073**	**2.0630**	**0.0000**	**86.4815**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Construction Emissions
Bridle Gate
Brentwood, California

Summary of Construction Emissions by Source

Construction Subphase	Source	Year	CAP Emissions (lb/year)[1]				GHG Emissions (lb/year)[2]			
			ROG	NO_x	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)	CO_2	CH_4	N_2O	CO_2e
Site Preparation	On-Site Exhaust	2024	44	1,708	36	32	264,787	11	2.1	265,696
	Mobile Exhaust		3.9	3.0	0.045	0.042	8,359	0.30	0.27	8,445
Grading	On-Site Exhaust	2024	69	818	25	24	541,052	22	4.4	542,908
	Mobile Exhaust		7.1	5.5	0.083	0.076	15,231	0.55	0.48	15,389
	On-Site Exhaust	2025	220	2,469	78	74	1,722,302	70	14	1,728,212
	Mobile Exhaust		21	16	0.25	0.23	47,531	1.6	1.5	48,005
	On-Site Exhaust	2026	82	868	29	27	640,062	26	5.2	642,258
	Mobile Exhaust		7.5	5.4	0.090	0.083	17,319	0.57	0.51	17,485
Building Construction	On-Site Exhaust	2026	151	1,616	49	46	393,147	16	3.2	394,497
	Mobile Exhaust		418	1,397	15	14	1,662,364	31	145	1,706,367
	On-Site Exhaust	2027	232	2,451	71	66	625,637	25	5.1	627,784
	Mobile Exhaust		634	2,110	23	22	2,603,046	46	226	2,671,648
	On-Site Exhaust	2028	107	1,116	31	28	299,682	12	2.4	300,711
	Mobile Exhaust		292	961	11	9.9	1,226,852	21	106	1,259,057
Paving	On-Site Exhaust	2028	54	895	34	32	203,989	8.3	1.7	204,689
	Mobile Exhaust		7.2	4.8	0.084	0.077	17,408	0.51	0.48	17,564
	Paving		7.5	--	--	--	--	--	--	--
	On-Site Exhaust	2029	6.0	97	3.6	3.3	22,659	0.92	0.18	22,737
	Mobile Exhaust		0.76	0.49	0.0088	0.0081	1,900	0.054	0.051	1,917
	Paving		0.77	--	--	--	--	--	--	--
Architectural Coating	On-Site Exhaust	2029	25	195	3.2	2.9	32,843	1.3	0.27	32,956
	Mobile Exhaust		103	67	1.2	1.1	259,707	7.3	7.0	261,972
	Architectural Coating		2,402	--	--	--	--	--	--	--
	On-Site Exhaust	2030	26	205	2.9	2.6	34,847	1.4	0.28	34,966
	Mobile Exhaust		105	66	1.2	1.1	270,964	7.3	7.1	273,263
	Architectural Coating		2,548	--	--	--	--	--	--	--
	On-Site Exhaust	2031	4.1	33	0.41	0.37	5,741	0.23	0.047	5,761
	Mobile Exhaust		16	10	0.19	0.17	44,011	1.1	1.1	44,374
	Architectural Coating		420	--	--	--	--	--	--	--

Summary of Construction Emissions by Year

Year	Daily Average CAP Emissions (lb/day)[3]				Daily Average GHG Emissions (MT/year)			
	ROG	NO_x	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)	CO_2	CH_4	N_2O	CO_2e
2024	0.94	19	0.46	0.42	415	0.017	0.0036	378
2025	0.92	9.5	0.30	0.29	885	0.036	0.0077	806
2026	2.5	15	0.36	0.34	1,356	0.037	0.077	1,252
2027	3.3	17	0.36	0.34	1,614	0.036	0.12	1,497
2028	1.8	11	0.29	0.27	874	0.021	0.055	808
2029	9.8	1.4	0.031	0.028	159	0.0048	0.0037	145
2030	10	1.0	0.016	0.014	153	0.0043	0.0037	140
2031	10	1.0	0.014	0.013	25	6.8E-04	5.9E-04	23
BAAQMD Thresholds[4]	**54**	**54**	**82**	**54**	--	--	--	--
Exceed Thresholds?	**No**	**No**	**No**	**No**	**--**	**--**	**--**	**--**

Notes:

1. Emissions were estimated using off-road construction equipment emission factors from CalEEMod and on-road emission factors from EMFAC2021. The emissions above include emissions from emissions from offroad equipment, emissions from worker and vendor trips, and off-gassing emissions from paving and architectural coating. BAAQMD construction thresholds for PM10 and PM2.5 evaluate only exhaust emissions.
2. Emission factors for CO2e were estimated by multiplying the CH4 and N2O emission factors by their global warming potentials from the 40 CFR Part 98 Subpart A, Table A-1.
3. CAP emissions are averaged over the number of workdays per year for each year in the construction period starting in July 2024.
4. Thresholds are from BAAQMD Guidance for Assessing and Mitigating Air Quality Impacts. For PM, this excludes construction fugitive emissions. There are currently no CEQA thresholds for GHG emissions from project construction.

Abbreviations:

CalEEMod - California Emissions Estimator Model
EMFAC2021 - California Air Resources Board EMission FACtor model
ROG - reactive organic gas
NOx - nitrogen dioxide
$PM_{2.5}$ - particulate matter < 2.5 µm
PM_{10} - particulate matter < 10 µm
lb - pound
CAP - criteria air pollutant

References:

The California Emissions Estimator Model (CalEEMod). Available at: http://www.caleemod.com/

California Environmental Quality Act Air Quality Guidelines. 2017. Available at: https://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/%20Draft_BAAQMD_CEQA_Guidelines_May_2010_Final.ashx

Federal Register EPA; 40 CFR Part 98 Subpart A, Table A-1, Available at: https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-98/subpart-A/appendix-Table%20A-1%20to%20Subpart%20A%20of%20Part%2098

Appendix E

Application Form and Planning Survey Report

To Comply With and Receive Permit Coverage Under The East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan

Please complete this application to apply for take authorization under the state and federal East Contra Costa County HCP/NCCP incidental take permits. The East Contra Costa County Habitat Conservancy ("Conservancy") or local jurisdiction (City of Brentwood, City of Clayton, City of Oakley, City of Pittsburg, and Contra Costa County) may request more information in order to deem the application complete.

I. PROJECT OVERVIEW

PROJECT INFORMATION	
PROJECT NAME: Bridle Gate	
PROJECT TYPE: ☒ Residential ☐ Commercial ☐ Transportation ☐ Utility ☐ Other	
PROJECT DESCRIPTION (BRIEF): The proposed project is development of 286 single family residential units, two parks, and open space, with access from the extension of Sand Creek Road. See detailed project description in Attachment A.	
PROJECT ADDRESS/LOCATION: The Study Area is located at the west end of Sand Creek Road, just west of State Highway 4 in Brentwood, Contra Costa County, California.	
PARCEL/PROJECT SIZE (ACRES): 135.31+/- acres (92.13+/- acre Bridle Gate site, 2.64+/- acres of land for the potential extension of Sand Creek Road, and 40.54+/- acres of lands to the north with no improvements)	
PROJECT APN(S): 019-082-009 & 019-082-010	
APPLICATION SUBMITTAL DATE: February 2023	**FINAL PSR DATE:** (City/County/Conservancy use)
LEAD PLANNER:	
JURISDICTION: ☒ City of Brentwood ☐ City of Clayton ☐ City of Oakley ☐ City of Pittsburg ☐ Contra Costa County ☐ Participating Special Entity*	
*Participating Special Entities are organizations not subject to the authority of a local jurisdiction. Such organizations may include school districts, irrigation districts, transportation agencies, local park districts, geological hazard abatement districts, or other utilities or special districts that own land or provide public services.	
DEVELOPMENT FEE ZONE: ☐ Zone I ☒ Zone II ☐ Zone III ☐ Zone IV	
See figure 9-1 of the HCP/NCCP at www.cocohcp.org for a generalized development fee zone map. Detailed development fee zone maps by jurisdiction are available from the jurisdiction.	

PROJECT APPLICANT INFORMATION	
APPLICANT'S NAME: Discovery Builders, Inc.	
AUTHORIZED AGENT'S NAME AND TITLE: Louis Parsons, Project Manager	
PHONE NO.: (925) 682-6419	**APPLICANT'S E-MAIL:** lparsons@discoverybuilders.com
MAILING ADDRESS: 4061 Port Chicago Highway, Concord, California 94520	

BIOLOGIST INFORMATION[1]	
BIOLOGICAL/ENVIRONMENTAL FIRM: Moore Biological Consultants	
CONTACT NAME AND TITLE: Diane S. Moore, M.S., Principal Biologist	
PHONE NO.: (209) 745-1159	**CONTACT'S E-MAIL:** moorebio@softcom.net
MAILING ADDRESS: 10330 Twin Cities Rd., Ste 30, Galt, CA 95632	

[1] A USFWS/CDFW-approved biologist (project-specific) is required to conduct the surveys. Please submit biologist(s) approval request to the Conservancy.

II. PROJECT DETAILS

Please complete and/or provide the following attachments:

1) **Project Description**
   Attach as **Attachment A: Project Description**. Provide a detailed written description that concisely and completely describes the project and location. Include the following information:
   - All activities proposed for the site or project, including roads utilized, construction staging areas, and the installation of underground facilities, to ensure the entire project is covered by the HCP/NCCP permit
   - Proposed construction dates, including details on construction phases, if applicable
   - Reference a City/County application number for the project, if applicable
   - General Best Management Practices, if applicable
   - If the project will have temporary impacts, please provide a restoration plan describing how the site will be restored to pre-project conditions, including revegetation seed mixes or plantings and timing

2) **Project Vicinity Map**
   Provide a project vicinity map. Attach as **Figure 1** in **Attachment B: Figures**.

3) **Project Site Plans**
   Provide any project site plans for the project. Attach as **Figure 2** in **Attachment B: Figures**.

4) **CEQA Document**
   Indicate the status of CEQA documents prepared for the project. Provide additional comments below table if necessary.

Type of Document	Status	Date Completed
☐ Initial Study		
☒ Notice of Preparation	Filed	12/29/22
☐ Draft EIR		
☐ Final EIR		
☐ Notice of Categorical Exemption		
☐ Notice of Statutory Exemption		
☒ Revised EIR	In preparation	

III. EXISTING CONDITIONS AND IMPACTS

Please complete and/or provide the following attachments:

1) **Field-Verified Land Cover Map**[2]
   Attach a field-verified land cover map in **Attachment B: Figures** and label as **Figure 3**. The map should contain all land cover types present on-site overlaid on aerial/satellite imagery. Map colors for the land cover types should conform to the HCP/NCCP (see *Figure 3-3: Landcover in the Inventory Area* for land cover type legend).

2) **Photographs of the Project Site**
   Attach representative photos of the project site in **Attachment B: Figures** and label as **Figure 4**. Please provide captions for each photo.

[2] For PSEs and city or county public works projects, please also identify permanent and temporary impact areas by overlaying crosshatching (permanent impacts) and hatching (temporary impacts) on the land cover map.

3) Land Cover Types and Impacts and Supplemental Tables

- For all terrestrial land cover types please provide calculations to the nearest **hundredth of an acre (0.01)**.
  For aquatic land cover types please provide calculations to the nearest **thousandth of an acre (0.001)**.
- **Permanent Impacts** are broadly defined in the ECCC HCP/NCCP to include all areas removed from an undeveloped or habitat-providing state and includes land in the same parcel or project that is not developed, graded, physically altered, or directly affected in any way but is isolated from natural areas by the covered activity. Unless such undeveloped land is dedicated to the Preserve System or is a deed-restricted creek setback, the development mitigation fee will apply (if proposed, would require Conservancy approval).
- **Temporary Impacts** are broadly defined in the ECCC HCP/NCCP as any impact on vegetation or habitat that does not result in permanent habitat removal (i.e. vegetation can eventually recover).
- If **wetland (riparian woodland/scrub, wetland, or aquatic)** land cover types are present on the parcel but will not be impacted please discuss in the following section 4) Jurisdictional Wetlands and Waters. Wetland impact fees will only be charged if wetland features are impacted. However, development fees will apply to the entire parcel.
- **Stream** land cover type is considered a linear feature where impacts are calculated based on length impacted. The acreage within a stream, below Top of Bank (TOB), must be assigned to the adjacent land cover type(s). Insert area of impact to stream below TOB in parentheses after the Land Cover acreage number (e.g., Riparian Woodland/Scrub: 10 (0.036) – where 10 is the total impacted acreage <u>including</u> 0.036 acre, which is the acreage within stream TOB). Complete following supplemental **Stream Feature Detail** table to provide information for linear feet.
- **Total Impacts** acreage should be the <u>total parcel acreage</u> (development project) or <u>project footprint acreage</u> (rural infrastructure or utility project).

<u>Table 1: Land Cover Types and Impacts (92.13 acre "Bridle Gate Project Site")</u>

Land Cover Type	Permanent Impacts	Temporary Impacts	*Proposed for HCP/NCCP Dedication on the Parcel (Requires Conservancy Approval)*	
			Stream Setback	*Preserve System Dedication*
Grassland				
Annual Grassland				
Alkali Grassland				
Ruderal	86.84 acres			
Shrubland				
Chaparral and Scrub				
Woodland				
Oak Savannah				
Oak Woodland				
Riparian				
Riparian Woodland/Scrub	0.70 acres			
Wetland				
Permanent Wetland				
Seasonal Wetland	4.588 acres (no impact)			
Alkali Wetland				
Aquatic				
Aquatic (Reservoir/Open Water)				
Slough/Channel				
Pond				
Stream (in linear feet)	512 feet (no impact)	-	-	-
Irrigated Agriculture				
Pasture				
Cropland				
Orchard				
Vineyard				
Other				
Nonnative woodland				
Wind turbines				
Developed (not counted toward Fees)				
Urban				
Aqueduct				
Turf				
Landfill				
TOTAL IMPACTS	92.13 acres			

Identify any uncommon vegetation and uncommon landscape features[3]:

Supplemental to Table 1: Uncommon Vegetation and Landscape Features

	Permanent Impacts	Temporary Impacts
Uncommon Grassland Alliances		
Purple Needlegrass Grassland		
Blue Wildrye Grassland		
Creeping Ryegrass Grassland		
Wildflower Fields		
Squirreltail Grassland		
One-sided Bluegrass Grassland		
Serpentine Bunchgrass Grassland		
Saltgrass Grassland		
Alkali Sacaton Bunchgrass Grassland		
☐ Other		
Uncommon Landscape Features		
Rock Outcrops		
Caves		
Springs and seeps		
Scalds		
Sand Deposits		
☐ Mines[4]		
☐ Buildings (bat roosts)[3]		
☒ Potential nest sites (trees or cliffs)[3]		

There are 49 trees in the Bridle Gate project site. Several of these trees are large enough to support nesting raptors, and songbirds may use the trees in the Study Area for nesting. The Bridle Gate project will not involve tree removal.

Please provide details of impacts to stream features: None. The Bridle Gate project will not involve impacts to Sand Creek.

Stream Name: **Watershed:**

Supplemental to Table 1: Stream Feature Detail[5]

Stream Width	Stream Type[6]	Permanent Impacts (linear feet)[7]	Temporary Impacts (linear feet)[7]
☐ ≤ 25 feet wide ☐ > 25 feet wide	☐ Perennial ☐ Intermittent ☐ Ephemeral, 3rd or higher order ☐ Ephemeral, 1st or 2nd order		
☐ ≤ 25 feet wide ☐ > 25 feet wide	☐ Perennial ☐ Intermittent ☐ Ephemeral, 3rd or higher order ☐ Ephemeral, 1st or 2nd order		
☐ ≤ 25 feet wide ☐ > 25 feet wide	☐ Perennial ☐ Intermittent ☐ Ephemeral, 3rd or higher order ☐ Ephemeral, 1st or 2nd order		

[3] These acreages are for Conservancy tracking purposes. Impacts to these uncommon vegetation and landscape features should be accounted for within the land cover types in Table 1 (e.g., x acres of purple needlegrass in this supplemental table should be accounted for within annual grassland in Table 1).
[4] Insert amount/number, not acreage. Provide additional information on these features in Attachment A: Project Description.
[5] Use more than 1 row as necessary to describe impacts to streams on site.
[6] See glossary (Appendix A) for definition of stream type and order.
[7] Stream length is measured along stream centerline, based on length of impact to any part of the stream channel, TOB to TOB.

Table 1a: Land Cover Types and Impacts (2.64 acre "Sand Creek Extension")

Land Cover Type	Permanent Impacts	Temporary Impacts	*Stream Setback*	*Preserve System Dedication*
Grassland				
Annual Grassland				
Alkali Grassland				
Ruderal	2.64 acres			
Shrubland				
Chaparral and Scrub				
Woodland				
Oak Savannah				
Oak Woodland				
Riparian				
Riparian Woodland/Scrub				
Wetland				
Permanent Wetland				
Seasonal Wetland				
Alkali Wetland				
Aquatic				
Aquatic (Reservoir/Open Water)				
Slough/Channel				
Pond				
Stream (in linear feet)	-	-	-	-
Irrigated Agriculture				
Pasture				
Cropland				
Orchard				
Vineyard				
Other				
Nonnative woodland				
Wind turbines				
Developed (not counted toward Fees)				
Urban				
Aqueduct				
Turf				
Landfill				
TOTAL IMPACTS	2.64 acres			

4) Summary of Land Cover Types

Please provide a written summary of descriptions for land cover types found on site including characteristic vegetation.

The 135.31+/- acre Study Area includes the 92.13+/acre Bridle Gate project site and 2.64+/- acres of off-site lands for the extension of Sand Creek Road if the Bridle Gate project is developed in advance of the City's overall Sand Creek Road extension project. The Study Area also includes 40.54+/- acres of lands to the north; there will be no improvements in this 40.54+/- acre area.

Field surveys of the Study Area were conducted on April 1, 9, 16, and 30, 2020, and January 13, 2022.

During the past decade, the Study Area has been subject to substantial earth disturbance related to the construction of State Highway 4. The Study Area has also been farmed in hay crops for many years. Lands to the south of Sand Creek support ruderal grassland vegetation that is periodically disturbed by disking and farming winter wheat. The parcel to the north of Sand Creek also supports ruderal grassland vegetation that is periodically disturbed by disking; this area has also been farmed in winter wheat in recent years. There is a seasonal wetland swale in the west part of the Study Area that drains into Sand Creek. There are numerous

trees in the Sand Creek riparian corridor, a few trees in the field north of Sand Creek, and a few trees along Old Sand Creek Road.

Ruderal Grassland: The Study Area is vegetated with ruderal grassland vegetation that has been highly disturbed by agricultural use and ground disturbance related to highway construction (Figures 3 and 4a-4d). Grasslands in the Study Area have been graded and re-graded numerous times over the years, and are routinely disked. Dominant grass species in the Study Area include oats (*Avena fatua*), soft chess brome (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), and perennial ryegrass (*Lolium perenne*). Other grassland species such yellow star-thistle (*Centaurea solstitialis*), black mustard (*Brassica nigra*), yellow sweetclover (*Melilotus officinalis*), American vetch (*Vicia americana*), purple owl's clover (*Castilleja exserta*) and filaree (*Erodium* spp.) are intermixed with the grasses.

Riparian Woodland/Scrub: Sand Creek flows west to east through the Study Area, including through the northwest tip of the Bridle Gate site (Figures 3, 4d-f, and Wetland Delineation Map in Attachment E). Sand Creek is located in an incised corridor approximately 15 feet below the adjacent grasslands. Valley oak (*Quercus lobata*), California black walnut (*Juglans californica*), California buckeye (*Aesculus californica*), cottonwoods (*Populus fremontii*), almond (*Prunus dulcis*), and fan palm (*Washingtonia filifera*) are the dominant trees along Sand Creek. There are a few scattered elderberry (*Sambucus* nigra ssp. *caerulea*) shrubs and patches of wild rose (*Rosa californica*) along the banks of the stream. Cattails (*Typha* sp.), bulrush (*Schoenoplectus americanus*), water plantain (*Alisma trivale*), and curly dock (*Rumex crispus*) are dominant species in creekbed.

Seasonal Wetland: The seasonal wetland in the west part of the Bridle Gate site has also been routinely disked and is highly disturbed (Figures 3, 4g, and Wetland Delineation Map in Attachment E). Water drains into the Study Area from an off-site basin in the residential subdivision just south of the Study Area and drains through the seasonal wetland feature before draining into Sand Creek in the northwest part of the Study Area. The swale is saturated seasonally but surface water is present only during or shortly after rain events. Perennial ryegrass is the dominant species in the swale, with lesser amounts of Mediterranean barley (*Hordeum marinum*), as well as upland species such as Harding grass (*Phalaris aquatica*) and black mustard.

Trees: There are numerous trees along the Sand Creek riparian corridor and a few in and along the edges of the field north of Sand Creek (Figure 5a). Valley oak and almonds are the most dominant tree species, intermixed with lesser numbers of black walnut, California buckeye, willows (*Salix* spp.), toyon (*Heteromeles arbutifolia*), Fremont cottonwood, and a few ornamental tree species.

5) Jurisdictional Wetlands and Waters

If wetlands and waters are present on the project site, project proponents must conduct a delineation of jurisdictional wetlands and waters. Jurisdictional wetlands and waters are defined on pages 1-18 and 1-19 of the ECCC HCP/NCCP as the following land cover types: permanent wetland, seasonal wetland, alkali wetland, aquatic, pond, slough/channel, and stream. It should be noted that these features differ for federal and state jurisdictions. If you have identified any of these land cover types in Table 1, complete the section below.

a) Attach the wetland delineation report as **Attachment E: Wetland Delineation.** If a wetland delineation has not been completed, please explain below in section 4c.

b) Please check the following permits the project may require. Please submit copies of these permits to the Conservancy prior to the start of construction:

☐ CWA Section 404 Permit[8] ☐ CWA Section 401 Water Quality Certification

☐ Waste Discharge Requirements ☐ Lake and Streambed Alteration Agreement

c) Provide any additional information on impacts to jurisdictional wetland and waters below, including status of the permit(s):

[8] The USACE Sacramento District issued a Regional General Permit 1 (RGP) related to ECCC HCP/NCCP covered activities. The RGP is designed to streamline wetland permitting in the entire ECCC HCP/NCCP Plan Area by coordinating the avoidance, minimization, and mitigation measures in the Plan with the Corps' wetland permitting requirement. Applicants seeking authorization under this RGP shall notify the Corps in accordance with RGP general condition number 18 (Notification).

A wetland delineation of the Study Area was conducted on April 1, 2020 and April 16, 2020 and the mapped wetland boundaries were confirmed in the field on January 5, 2022. There is a total of 5.086+/- acres of potentially jurisdictional Waters of the U.S and Wetlands in the Study Area (see Wetland Delineation Map in Attachment E). This total includes a 4.588+/- acre seasonal wetland and 0.112+/- acres of stream in the Bridle Gate project site and an additional 0.386+/- acres of stream further east.

The project will not involve the placement of fill in in jurisdictional Waters of the U.S. The seasonal wetland swale will be fully avoided and will remain in open space. Sand Creek will be fully avoided by the Bridle Gate project, but will eventually be impacted by the City's overall Sand Creek Road extension project.

6) Species-Specific Planning Survey Requirements

Based on the land cover types found on-site and identified in Table 1, check the applicable boxes in Table 2a.

Table 2a. Species –Specific Planning Survey Requirements

Land Cover Type in Project Area	Required Survey Species	Habitat Element in Project Area	Planning Survey Requirement[9]	Info in HCP
☒ Grasslands, oak savannah, agriculture, or ruderal	☒ San Joaquin kit fox	Assumed if within modeled range of species	If within modeled range of species, identify and map potential breeding or denning habitat within the project site and a 250-ft radius around the project footprint.	pp. 6-37 to 6-38
	☒ Western burrowing owl	Assumed	Identify and map potential breeding habitat within the project site and a 500-ft radius around the project footprint. Please note the HCP requires buffers for occupied burrows. Surveys may need to encompass an area larger than the project footprint.	pp. 6-39 to 6-41
☒ Aquatic (ponds, wetlands, streams, sloughs, channels, and marshes)	☐ Giant garter snake	Aquatic habitat accessible from the San Joaquin River	Identify and map potential habitat.	pp. 6-43 to 6-45
	☐ California tiger salamander	Ponds and wetlands Vernal pools Reservoirs Small lakes	Identify and map potential breeding habitat. Document habitat quality and features. Provide the Conservancy with photo-documentation and report.	pp. 6-45
	☒ California red-legged frog	Slow-moving streams, ponds and wetlands	Identify and map potential breeding habitat. Document habitat quality and features. Provide the Conservancy with photo-documentation and report.	p. 6-46
	☐ Covered shrimp	Seasonal wetlands Vernal pools Sandstone rock outcrops Sandstone depressions	Identify and map potential habitat. Please note the HCP requires a 50 foot non-disturbance buffer from seasonal wetlands that may be occupied by covered shrimp. Surveys may need to encompass an area larger than the project footprint.	pp. 6-46 to 6-48
☐ Any	☐ Townsend's big-eared bat	Rock formations with caves Mines Abandoned buildings outside urban area	Map and document potential breeding or roosting habitat.	pp. 6-36 to 6-37
	☒ Swainson's hawk	Potential nest sites within 1,000 feet of project	Inspect large trees for presence of nest sites. Document and map.	pp. 6-41 to 6-43
	☒ Golden Eagle	Potential nest sites with ½ mile of project	Inspect large trees for presence of nest sites. Document and map.	pp. 6-38 to 6-39

Surveys for all covered species must be conducted by a qualified biologist (USFWS/CDFW project-specific approved). Please submit biologist approval request to the East Contra Costa County Habitat Conservancy.
Surveys for all covered species must be conducted according to the respective USFWS or CDFW survey protocols, as identified in Chapter 6.4.3 in the HCP/NCCP.

[9] The planning survey requirements in this table are not comprehensive. Please refer to Chapter 6.4.3 in the ECCC HCP/NCCP for more detail.

7) Planning Survey Species Habitat Maps

Provide Planning Survey Species Habitat Maps as required in Table 2a, attach as **Figure 5** in **Attachment B: Figures**.

8) Results of Species-Specific Surveys

Provide a written summary describing the results of the planning surveys. Please discuss the location, quantity, and quality of suitable habitat for specified covered wildlife species on the project site.

General Setting: The 135.31+/- acre Study Area is in Brentwood, in Contra Costa County, California (Figure 1). The Study Area is within Section 10 in Township 1 North, Range 2 East of the USGS 7.5-minute Brentwood topographic quadrangle. The Study Area is situated at elevations of approximately 130 to 220 feet above mean sea level.

Land uses in this portion of Brentwood are primarily residential and agricultural. Most of the natural habitats in the project vicinity are either intensively farmed or have been replaced with development. There is a relatively new subdivision to the south of the Study Area and commercial development to the east of the Study Area, across Highway 4. The fields to the north and west of the Study Area have been farmed in hay crops during the past few years.

San Joaquin Kit Fox: The Study Area is ruderal grassland that is within the range of San Joaquin kit fox (*Vulpes macrotis mutica*) (Figure 5a) and is mapped as "suitable core habitat" in the modeled range of the species as mapped in Appendix D of the ECCCCHCP. The Study Area was inspected for burrows or dens with evidence of kit fox occupancy (i.e., scat, tracks) or burrows or dens that meet the dimensional criteria for kit fox. A search of the Study Area for potential San Joaquin kit fox dens was accomplished by driving and walking meandering transects throughout the property. While a few burrows were observed in the Study Area, they were too small and appeared to be used by ground squirrels. No dens with appropriate dimensions and/or evidence of San Joaquin kit fox were observed in the Study Area. The nearest occurrence of this species in California Department of Fish and Wildlife's California Natural Diversity Database (CNDDB, 2023) is a record approximately 3 miles southwest of the Study Area.

Western Burrowing Owl: The Study Area is ruderal grassland (Figure 5a) that is within the range of western burrowing owl (*Athene cunnicularia*). The Study Area and visible areas on adjacent lands were inspected for burrowing owls and ground squirrel burrows with evidence of burrowing owl occupancy (i.e., white wash, pellets, feathers). Comprehensive inspection of potential burrowing owl habitat was accomplished by walking and driving meandering transects throughout the property. No western burrowing owls were observed in the Study Area. No burrows with evidence of burrowing owl occupancy were observed. There are a few occurrences of burrowing owls in the CNDDB (2023) within 500 feet of the Study Area and several other records within half of a mile from the Study Area (Figure 5b).

Swainson's Hawk: The Study Area is ruderal grassland along the extreme western edge of the range of Swainson's hawks (*Buteo swainsoni*). There are several potential nest trees along Sand Creek and in the field north of Sand Creek that may be utilized by Swainson's hawk for nesting (Figure 5a). No Swainson's hawks were observed perching or nesting in the trees within the Study Area or trees visible from the Study Area during the April 2020 field surveys. The grasslands in the Study Area may be used for foraging by Swainson's hawks.

The CNDDB (2023) contains a 2007 record of a pair of Swainson's hawks nesting in a tree along Sand Creek in the Study Area, approximately 100 feet east of the Bridle Gate project site (Figure 5b). During the 2020 field surveys, a nest occupied by great-horned owls was observed in the same location along the creek. There are no other records of nesting Swainson's hawks within 1,000 feet of the Study Area.

Golden Eagle: The Study Area is ruderal grassland and is within the range of golden eagles (*Aquila chrysaetos*). There are a few potential nest trees for golden eagles in the Study Area along Sand Creek and in the field north of Sand Creek (Figure 5a). The nearest occurrence of this species in the CNDDB (2023) is approximately 5 miles southeast of the Study Area; there are no records of nesting golden eagle within 0.5 miles of the Study Area. As described above, trees in and visible from the Study Area were inspected for raptor stick nests and only one was observed along Sand Creek, which was occupied by great-horned owls. No other

raptor stick nests were observed in the trees within the Study Area or trees visible from the Study Area. No golden eagles were observed during the 2020 or 2022 field surveys.

California Red-legged Frog: The Study Area is within the range of California red-legged frog (*Rana auroura draytonii*) and Sand Creek provides low quality, yet potentially suitable habitat for this species. The entire Study Area is "potential migration and aestivation habitat" in the modeled range of California red-legged frog as mapped in Appendix D of the ECCCCHCP; Sand Creek and the seasonal wetland are mapped as potential breeding habitat for this species. California red-legged frog may travel across the grasslands in the Study Area while dispersing from aquatic habitats, but due to intensive disking, they would not be expected to aestivate in the Study Area. There are no notable plunge pools within Sand Creek providing highly suitable breeding habitat; most of the creek consists of shallow runs. The seasonal wetland does not provide suitable California red-legged frog breeding habitat. The nearest occurrence of California red-legged frog in the CNDDB (2023) is a 2005 record approximately 1 mile southwest of the Study Area.

Other Covered Species: The 4.59-acre seasonal wetland (Figure 3) is not a vernal pool. The seasonal wetland swale has directional flow and is saturated seasonally, but surface water is present only during or shortly after rain events. This seasonal wetland feature is highly disturbed from periodic disking and hay farming. This seasonal wetland swale does not provide suitable habitat for vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardi*), or other special-status branchiopods. Due to its hydrological regime, the seasonal wetland does not provide suitable breeding habitat for California tiger salamander (*Ambystoma californiense*). Due to intensive disking, the grasslands in the Study Area are not suitable for California tiger salamander aestivation.

The site mapped in Appendix D of the ECCCCHCP as "primary foraging habitat" for tricolored blackbird (*Agelaius tricolor*). The on-site grasslands may be used by this species for foraging. Vegetation in and adjacent to Sand Creek including patches of wild rose, bulrush, cattails, and willows could be used by tricolored blackbird for nesting.

9) Covered and No-Take Plants

Please check the applicable boxes in Table 2b based on the land cover types found in the project area. If suitable land cover types are present on site, surveys must be conducted using approved CDFW/USFWS methods during the appropriate season for identification of covered and no-take species (see page 6-9 of the ECCC HCP/NCCP). Reference populations of covered and no-take plants should be visited, where possible, prior to conducting surveys to confirm that the plant species is visible and detectable at the time surveys are conducted. In order to complete all the necessary covered and no-take plant surveys, spring, summer, and fall surveys may be required.

Table 2b. Covered and No-Take Plant Species

Plant Species	Covered (C) or No-Take (N)	Associated Land Cover Type	Typical Habitat or Physical Conditions, if Known	Typical Blooming Period	Suitable Land Cover Type Present
Adobe navarretia (*Navarretia nigelliformis* ssp. *radians*) [a]	C	Annual Grassland	Generally found on clay barrens in Annual Grassland [b]	Apr–Jun	☐ Yes ☒ No
Alkali milkvetch (*Astragalus tener* ssp. *tener*)	N	Alkali grassland Alkali wetland Annual grassland Seasonal wetland	Generally found in vernally moist habitat in soils with a slight to strongly elevated pH	Mar–Jun	☒ Yes ☐ No
Big tarplant (*Blepharizonia plumosa*)	C	Annual grassland	Elevation below 1500 feet [d] most often on Altamont Series or Complex soils	Jul–Oct	☐ Yes ☒ No
Brewer's dwarf flax (*Hesperolinon breweri*)	C	Annual grassland Chaparral and scrub Oak savanna Oak woodland	Generally, restricted to grassland areas within a 500+ buffer from oak woodland and/or chaparral/scrub [d]	May–Jul	☐ Yes ☒ No

Brittlescale (*Atriplex depressa*)	C	Alkali grassland Alkali wetland	Restricted to soils of the Pescadero or Solano soil series; generally found in southeastern region of plan area [d]	May–Oct	☐ Yes ☒ No
Caper-fruited tropidocarpum (*Tropidocarpum capparideum)*	N	Alkali grassland		Mar–Apr	☐ Yes ☒ No
Contra Costa goldfields (*Lasthenia conjugens*)	N	Alkali grassland Alkali wetland Annual grassland Seasonal wetland	Generally found in vernal pools	Mar–Jun	☒ Yes ☐ No
Diablo Helianthella (*Helianthella castanea*)	C	Chaparral and scrub Oak savanna Oak woodland	Elevations generally above 650 feet [d]	Mar–Jun	☐ Yes ☒ No
Diamond-petaled poppy (*Eschscholzia rhombipetala*)	N	Annual grassland		Mar–Apr	☐ Yes ☒ No
Large-flowered fiddleneck (*Amsinckia grandiflora*)	N	Annual grassland	Generally on clay soil	Apr–May	☐ Yes ☒ No
Mount Diablo buckwheat (*Eriogonum truncatum*)	N	Annual grassland Chaparral and scrub	Ecotone of grassland and chaparral/scrub	Apr–Sep	☐ Yes ☒ No
Mount Diablo fairy-lantern (*Calochortus pulchellus*)	C	Annual grassland Chaparral and scrub Oak savanna Oak woodland	Elevations generally between 650 and 2,600[d]	Apr–Jun	☐ Yes ☒ No
Mount Diablo Manzanita (*Arctostaphylos auriculata*)	C	Chaparral and scrub	Elevations generally between 700 and 1,860 feet; restricted to the eastern and northern flanks of Mt. Diablo [d] and the vicinity of Black Diamond Mines	Jan–Mar	☐ Yes ☒ No
Recurved larkspur (*Delphinium recurvatum*)	C	Alkali grassland Alkali wetland		Mar–Jun	☐ Yes ☒ No
Round-leaved filaree (*California macrophylla*) [c]	C	Annual grassland		Mar–May	☐ Yes ☒ No
San Joaquin spearscale (*Extriplex joaquiniana*) [e]	C	Alkali grassland Alkali wetland		Apr–Oct	☐ Yes ☒ No
Showy madia (*Madia radiata*)	C	Annual grassland Oak savanna Oak woodland	Primarily occupies open grassland or grassland on edge of oak woodland	Mar–May	☐ Yes ☒ No

[a] The species *Navarretia nigelliformis* subsp. *nigelliformis* is no longer considered to occur within Contra Costa County based on specimen annotations at the UC and Jepson Herbaria at the University of California Berkeley as well as the opinions of experts in the genus. This taxon is now recognized as *Navarretia nigelliformis* subsp. *radians.* Any subspecies of *Navarretia nigelliformis* encountered as a part of botanical surveys in support of a PSR should be considered as covered under this HCP/NCCP.
[b] Habitat for the *Navarretia nigelliformis* subspecies that occurs within the inventory are is inaccurately described in the HCP/NCCP as vernal pools. The entity within the Inventory generally occupies clay barrens within Annual Grassland habitat, which is an upland habitat type.
[c] From California Native Plant Society. 2007. *Inventory of Rare and Endangered Plants* (online edition, v7-07d). Sacramento, CA. Species may be identifiable outside of the typical blooming period; a professional botanist shall determine if a covered or no take plant occurs on the project site. Reference population of covered and no-take plants should be visited, where possible, prior to conducting surveys to confirm that the plant is visible and detectable at the time surveys are conducted.
[d] See Species Profiles in Appendix D of the Final HCP/NCCP. Reference populations of covered and no-take plants should be visited, where possible, prior to conducting surveys to confirm that the plant species is visible and detectable at the time surveys are conducted.
[e] In the recent update to the Jepson eflora (JFP 2013) *Atriplex joaquinana* has been circumscribed and segregated into a new genus called *Extriplex* based on the work of Elizabeth Zacharias and Bruce Baldwin (2010). The etymology of the genus *Extriplex* means, "beyond or outside Atriplex".

10) Results of Covered and No-Take Plant Species

Provide a written summary describing the results of the planning surveys conducted as required in Table 2b. Describe the methods used to survey the site for all covered and no-take plants, including the dates and times of all surveys conducted (see Tables 3-8 and 6-5 of the ECCC HCP/NCCP for covered and no-take plants), including reference populations visited prior to conducting surveys.

If any covered or no-take plant species were found, include the following information in the results summary:

- Description and number of occurrences and their rough population size.
- Description of the "health" of each occurrence, as defined on pages 5-49 and 5-50 of the HCP/NCCP.
- A map of all the occurrences.
- Justification of surveying time window, if outside of the plant's blooming period.

- The CNDDB form(s) submitted to CDFW (if this is a new occurrence).
- A description of the anticipated impacts that the covered activity will have on the occurrence and how the project will avoid impacts to all covered and no-take plant species. If impacts to covered plant species cannot be avoided and plants will be removed by covered activity, the Conservancy must be notified and has the option to salvage the covered plants. All projects must demonstrate avoidance of all six no-take plants (see table 6-5 of the HCP/NCCP).

Survey Methods

Initial surveys to assess potentially suitable habitat for special-status plants in the Study Area were undertaken almost a decade ago, on July 12, 2012 and February 8 and April 30, 2013.

Focused surveys for special-status plants and an updated assessment of the Study Area for potentially suitable habitat for special-status plants were undertaken on April 9 and April 30, 2020, by botanist Jeff Glazner. The Study Area was systematically searched for special-status plants by walking throughout the Study Area, identifying plants as possible in the field, and collecting specimens for subsequent identification in the laboratory. The field survey was floristic in nature with the goal of identifying species observed to the taxonomic level necessary to determine whether it was a special-status species.

A final survey was conducted on January 13, 2022 to confirm the suitability of the Study Area to support special-status plants has not changed since the 2020 surveys.

Survey Results and Discussion

No covered or no-take plants were observed or are expected to occur in the Study Area. The Study Area has been farmed in hay crops for over a decade and the ruderal grassland in the Study Area is highly disturbed and does not provide potentially suitable habitat for any of the covered plants that occur in more natural annual grasslands in the greater project vicinity. No alkaline soils are present in the Study Area. The seasonal wetland is also highly disturbed and provides very poor-quality habitat for covered plants that occur in seasonal wetland habitats (i.e., alkali milkvetch and Contra Costa Goldfields). Covered seasonal wetland plants are discussed below. For the sake of completeness, each of the plant species identified in Table 2b as potentially occurring in annual grassland habitats is also discussed below.

Alkali Milkvetch (*Astragalus tener* ssp. *tener*): Alkali milkvetch, a dicot of the Fabaceae family, is an annual herb native and endemic to California. It is ranked by the CNPS as 1B.2. It produces upright stems up to 30 cm tall with several lance-shaped to oval leaflets. The inflorescence is a dense cluster of pinkish-purple white-smudged flowers. The California Native Plant Society (CNPS) on-line *Inventory of Rare and Endangered Plants* (2023) describes alkali milkvetch as occurring in alkaline habitats of playas, and valley and foothill grasslands in adobe clay soils, and vernal pools, at elevations up to 197 feet. It grows in both coastal and inland areas. The CNPS Inventory also describes this species as extirpated in Contra Costa County. The ECCCHCP/NCCP does not contain a model predicting where this species may occur within the plan area. No alkaline soil is present in the Study Area, and the species was not detected during the rare plant surveys.

Contra Costa Goldfields (*Lasthenia conjugens*): Contra Costa goldfields, a dicot of the Asteraceae family, is an annual herb native and endemic to California, primarily in vernal pools. It is ranked by the CNPS as 1B.2. Stems are simple or freely branched and erect attaining a height of less than 40 cm. The yellow ray flowers may number six to thirteen petals, and the five to ten-millimeter ligules are yellow as well. The yellow disk flowers are numerous, and anther tips are linear to somewhat ovate. The CNPS on-line *Inventory of Rare and Endangered Plants* (2023) describes Contra Costa goldfields as occurring in mesic habitats of cismontane woodland, alkaline playas, valley and foothill grasslands, and vernal pools at elevations up to 1,541 feet. The Study Area falls within the known range of the species; the ECCCHCP/NCCP does not contain a model predicting where this species may occur within the plan area. There are no vernal pools in the Study Area and no suitable habitat for this species. It was not detected during the rare plant surveys.

Adobe (Shining) Navarretia (*Navarretia nigelliformis* ssp. *radians*)[10]: This navarretia, a dicot of the Polemoniaceae family, is an annual herb native to California. It is ranked by the CNPS as 1B.2. The herbage is light gray-green with branches decumbent. The corolla is included, nine to 11 mm long, with lobes one to two mm. The on-line *Inventory of Rare and Endangered Plants* (2023) describes shining navarretia as occurring in vernal pools and clay depressions, at elevations between 492 and 3,280 feet. The Study Area falls within the known range of the species; the ECCCHCP/NCCP does not contain a model predicting where this species may occur within the plan area. There are no vernal pools in the Study Area and other than the wetland swale, no mesic areas were observed in the Study Area. The species was not detected during the rare plant survey.

Big Tarplant (*Blepharizonia plumosa*): Big tarweed, a dicot of the Asteraceae family, is an annual herb native and endemic to California. It is ranked by the CNPS as 1B.1. This aromatic annual herb produces a hairy, erect stem up to two meters tall. The leaves are linear in shape and sometimes toothed. The inflorescence bears several flower heads, each with a fringe of up to 13 red-veined white ray florets. The CNPS on-line *Inventory of Rare and Endangered Plants* (2023) describes big tarplant as occurring in valley and foothill grassland habitats (usually clay) at elevations between 98 and 1,657 feet. It grows in the Central Coast Ranges and adjacent sections of the southern San Francisco Bay Area and Central Valley. The Study Area is mapped in the ECCCHCP/NCCP as both "Suitable" and "Suitable Low Potential Habitat". The ruderal grasslands in the Study Area do not provide suitable habitat for big tarplant, and its likelihood of occurrence is extremely low.

Brewer's Dwarf Flax (*Hesperolinon breweri*): Brewer's dwarf flax, a dicot of the Linaceae family, is an annual herb native and endemic to California, where it is known from three counties in the San Francisco Bay Area. It is ranked by the CNPS as 1B.2. It grows erect to a height of five to 20 cm. Its narrow, linear leaves are greenish to purplish in color, and it produces dense inflorescences of flowers with glandular sepals and five bright yellow petals. The CNPS on-line *Inventory of Rare and Endangered Plants* (2023) describes Brewer's dwarf flax as occurring in chaparral, cismontane woodland, and valley and foothill grasslands, usually in serpentinite soils, at elevations between 295 and 2,953 feet. The Study Area is not mapped in the ECCCHCP/NCCP as "Suitable Low Potential Habitat" or as "Suitable Habitat" for Brewer's dwarf flax. No serpentinite is present in the Study Area. The ruderal grasslands in the Study Area do not provide suitable habitat for Brewer's dwarf flax, and it was not detected during the rare plant surveys.

Brittlescale *(Atriplex depressa):* Brittlescale, a dicot, is an annual herb of the Chenopodiacae family that is native and endemic to California. It is ranked by the CNPS as 1B.2. Brittlescale occurs on alkali soils and typically occurs in barren areas within alkali grassland, alkali meadow, and alkali scrub. The CNPS states that the species occurs in alkaline and clay soils of chenopod scrub, meadows and seeps, playas, valley and foothill grassland and vernal pools. It is occasionally found on the margins of alkali vernal pools. Brittlescale occurs along the western side of the Great Valley from Glenn County to Merced County and in the small valleys of the inner Coast Ranges, including the Livermore Valley. It occurs in the broad flood basins of the valley floor and on alluvial fans associated with the major streams draining from the inner Coast Range foothills. It is generally found at low elevations but has been collected up to 1,055 feet. Brittlescale is diminutive and generally grows prostrate; it rarely exceeds 20 centimeters in height. It blooms from April to October. The Study Area is not mapped in the ECCCHCP/NCCP as "Suitable Habitat" for brittlescale, no alkaline soil is present in the Study Area, and the species was not detected during the rare plant surveys.

Caper-fruited tropidocarpum (*Tropidocarpum capparideum*): Caper-fruited tropicocarpum is an annual herb in the Brassicaceae (mustard) family that is native to California. It is ranked by the CNPS as 1B.1. It occurs in alkaline soils of low hills and Valley and foothill grassland at elevation less than 1,312 feet. The species was generally considered to be extinct since the 1950s, but it has been reported since. According to CNPS, occurrences in Alameda, Contra Costa, Glenn, Santa Clara, and San Joaquin counties are presumed extirpated. Flowers are obovate to spoon-shaped, yellow, occasionally tinged purple, and the bloom period is from March to April. Habitat distribution has not been modeled for caper-fruited tropicocarpum in the ECCCHCP/NCCP. No alkaline soil is present in the Study Area, and the species was not detected during the rare plant surveys.

[10] Per Table 2B, the species *Navarretia nigelliformis* subsp. n*igelliformis* is no longer considered to occur within Contra Costa County based on specimen annotations at the UC and Jepson Herbaria at the University of California Berkeley as well as the opinions of experts in the genus. This taxon is now recognized as *Navarretia nigelliformis* subsp. *radians.*

Diablo helianthella (*Helianthella castanea*): Diablo helianthella, a dicot, is a perennial herb of the sunflower family (Asteraceae) that is native to California and endemic to the San Francisco Bay Area, occurring in the Diablo Range, Berkeley Hills, and San Bruno Mountain. It is ranked by the CNPS as 1B.2. It usually occurs in thin, rocky, well-drained soils, often in partial shade. According to CNPS, its habitats include broadleafed upland forest, chaparral, cismontane and riparian woodland, coastal scrub, and valley and foothill grassland. It most often occurs at elevations below 2,400 feet but it has been collected from locations as high as 3,800 feet. Diablo helianthella grows up to 18 inches tall. Its leaves are up to six inches long. The plant usually produces one yellow flower head per stem. Each head contains both ray flowers and disc flowers. It blooms from March to June. The ECCCHCP/NCCP contains a model predicting where this species may occur within the plan area. However, the Study Area is located well north of areas deemed "Suitable Habitat" for the species, and Diablo helianthella was not detected during the rare plant surveys.

Diamond-petaled poppy (*Eschscholzia rhombipetala*): Diamond-petaled poppy, a dicot of the Papaveraceae family, is an annual herb native and endemic to California, growing 5-30 cm. tall. It is ranked by the CNPS as 1B.1. Diamond-petaled California poppy may have erect or nodding buds, the flowers are small and yellow, and the bases of the leaves are fleshy. The fruits are conspicuous because they are four to seven cm. long, which may nearly equal the height of the plants The CNPS on-line *Inventory of Rare and Endangered Plants* (2023) describes diamond-petaled poppy as occurring in valley and foothill grassland habitats with alkaline or clay soils, at elevations up to 3,198 feet; the CNPS Inventory describes this species as extirpated in Contra Costa County. The Study Area falls within the known range of the species; the ECCCHCP/NCCP does not contain a model predicting where this species may occur within the plan area. No areas of alkaline or clay soils were observed in the Study Area. The ruderal grasslands in the Study Area do not provide suitable habitat for diamond-petaled poppy and it was not detected during the rare plant surveys.

Large-flowered fiddleneck (*Amsinckia grandiflora*): Large-flowered fiddleneck, a dicot of the Boraginaceae family, is an annual herb native and endemic to California. It is ranked by the CNPS as 1B.1. It is a striking annual plant, growing to 50 cm. tall and having bright orange flowers (14-20 mm. long). The CNPS on-line *Inventory of Rare and Endangered Plants* (2023) describes large-flowered fiddleneck as occurring in cismontane woodland and valley and foothill grassland habitats at elevations between 902 and 1,804 feet. The Study Area falls within the known range of the species; the ECCCHCP/NCCP does not contain a model predicting where this species may occur within the plan area. While the ruderal grassland in the Study Area may provide potentially suitable habitat for large-flowered fiddleneck, The Study Area is below the elevation range of this species, and this species was not detected during the rare plant surveys.

Mount Diablo buckwheat (*Eriogonum truncatum*): Mount Diablo buckwheat, a dicot of the Polygonaceae family, is an annual herb native and endemic to California, known only from Mt. Diablo in Contra Costa County. It is ranked by the CNPS as 1B.1. It grows between 150–750 millimeters high and blooms with several dozen pinkish flowers, having a maroon line down the center of each petal. The CNPS on-line *Inventory of Rare and Endangered Plants* (2023) describes Mount Diablo buckwheat as occurring in sandy soils of chaparral, coastal scrub, and valley and foothill grassland habitats, at elevations between ten and 1,148 feet. The Study Area falls within the known range of the species; the ECCCHCP/NCCP does not contain a model predicting where this species may occur within the plan area. No areas of sandy soils were observed in the Study Area. The ruderal grasslands in the Study Area do not provide suitable habitat for Mount Diablo buckwheat, and it was not detected during the rare plant surveys.

Mount Diablo fairy-lantern (*Calochortus pulchellus*): Mount Diablo fairy-lantern, a monocot of the Liliaceae family, is a perennial herb (bulb) that is native and endemic to California. It is ranked by the CNPS as 1B.2. It grows a branching stem up to about 30 cm. tall. The basal leaf is up to 40 cm. long, and does not wither at flowering. The inflorescence is a solitary flower or a cluster of several flowers, which are nodding and usually spherical with all their petal tips touching. The three sepals and three petals are two or three cm long and pale to deep yellow. The CNPS on-line *Inventory of Rare and Endangered Plants* (2023) describes Mount Diablo fairy-lantern as occurring in chaparral, cismontane or riparian woodland, and valley and foothill grassland habitats at elevations between 98 and 2,756 feet. In contrast, the ECCCHCP/NCCP describes this species as occurring at elevations between 650 and 2,600 feet. The Study Area is not mapped in the ECCCHCP/NCCP as "Suitable Habitat". The ruderal grasslands in the Study Area do not provide suitable habitat for Mount Diablo fairy-lantern, and it was not detected during the rare plant surveys.

Mount Diablo manzanita (*Arctostaphylos auriculata*): Mount Diablo manzanita, a dicot, is an evergreen shrub that is native and endemic to Contra Costa County, California. It is ranked by the CNPS as 1B.3. Mount Diablo manzanita occurs primarily in chaparral (sandstone) and cismontane woodland. It can be found as an understory shrub in coast live oak woodland. It is found only on Mount Diablo and in the adjacent foothills, between 700 and 1,860 feet. Mount Diablo manzanita is generally between one and 4.5 meters tall with serpentine, glandless stems covered in white hair. The short, silvery leaves overlap and have deeply lobed bases. It flowers densely in white. The Mount Diablo Manzanita has no basal burl for regrowth and must propagate by seed. While its bloom period is from January to March, this evergreen shrub can be identified at any time of the year. The Study Area is not mapped in the ECCCHCP/NCCP as "Suitable Habitat" for Mount Diablo manzanita; furthermore, the study area is below the reported range for this species, and it was not detected during the rare plant surveys.

Recurved larkspur (*Delphinium recurvatum*): Recurved larkspur, a perennial herb, is a member of the buttercup family (Ranunculaceae) that is native and endemic to California. It is ranked by the CNPS as 1B.2. Recurved larkspur occurs on alkaline soils in chenopod scrub, cismontane woodland, and valley and foothill grasslands ranging in elevation from 328 to 6,562 feet. The species now appears to be very rare outside the southern San Joaquin Valley. Four occurrences are reported from the inventory area, three of which are on private land southeast of Byron. (East Contra Costa County HCP). This species reaches a maximum height of about half a meter. Its deeply lobed leaves are mainly basal, with those located further up the dark purple stem being much smaller. The flowers are generally pale blue, with the sepals and lower petals darker than the upper petals. The sepals are usually curved back, the trait which gives the plant its name. It blooms from March to June. No alkaline soils are present in the Study Area, and the Study Area is located below the elevational range of the species. In addition, the Study Area is not mapped in the ECCCHCP/NCCP as "Suitable Habitat" for recurved larkspur, and the species was not detected during the rare plant surveys.

Round-leaved filaree (*California macrophylla*): Round-leaved filaree, a dicot of the Geraniaceae family, is an annual herb native to California. It is ranked by the CNPS as CBR (Considered but Rejected) (CNPS 2023). It grows only a few centimeters high, forming a patch of slightly lobed, somewhat kidney-shaped to rounded leaves on long, slender petioles. The inflorescence is an umbel of flowers with petals around a centimeter long and white in color, often tinted pinkish or purplish. The fruit has a fuzzy base and a long, narrow style which may reach five cm. in length. The 2016 version of the CNPS on-line *Inventory of Rare and Endangered Plants* described round-leaved filaree as blooming from March through May and occurring in annual grassland habitats with clay soils, at elevations between 49 and 3,937 feet. The 2023 version of the *Inventory* provides no description of the species. Portions of the northern and eastern edges of the Study Area are mapped in the ECCCHCP/NCCP as "Secondary Habitat". The ruderal grasslands in the Study Area do not provide suitable habitat for round-leaved filaree, and it was not detected during the rare plant surveys.

San Joaquin spearscale (*Atriplex joaquiniana*): San Joaquin spearscale, a dicot, is an annual herb of the Chenopodiacae family that is native and endemic to California. It is ranked by the CNPS as 1B.2. San Joaquin spearscale typically occurs in alkaline soils of chenopod scrub, meadows and seeps, playas and valley and foothill grassland. San Joaquin spearscale occurs along the western side of the Great Valley from Glenn County to Merced County and in the small valleys of the inner Coast Ranges, including the Livermore Valley. It occurs in the broad flood basins of the valley floor and on alluvial fans associated with the major streams draining from the inner Coast Range foothills. It is generally found at low elevations but has been collected up to 1,055 feet. It is an annual herb between one and three feet tall, blooming from April to October. According to the ECCCHCP/NCCP, "a species distribution model was developed that had the same assumptions as the model developed for brittlescale (all alkali grasslands and alkali wetlands on soils of the Pescadero or Solano soil series). Many occurrences, however, fell outside of the modeled habitat. Comparison with detailed mapping of San Joaquin spearscale populations in the Los Vaqueros Watershed (Jones & Stokes Associates 1989) showed that this species is not restricted to soils of the Solano and Pescadero soil series. Other soil series on which the species was found were too widespread to provide a useful prediction of the species' distribution in the inventory area. Therefore, the original species model was discarded." No alkaline soils are present in the Study Area, and San Joaquin spearscale was not detected during the rare plant surveys.

Showy madia (*Madia radiata)*: Showy madia, a dicot of the Asteraceae family, is an annual herb native to California, mostly from the Central Coast Ranges and adjacent edges of the San Francisco Bay Area and Central Valley. It is ranked by the CNPS as 1B.1. It grows upright ten to 90 cm. tall, the stem often branching and coated

in bulbous resin glands. The bristly, glandular leaves are up to 10 cm. long, often wider at the top of the plant than below. The inflorescence produces flower heads lined with hairy, gland-studded phyllaries. The head has golden yellow ray florets up to almost two cm, long and a center filled with many disc florets. The CNPS on-line *Inventory of Rare and Endangered Plants* (2023) describes showy madia as blooming from March through May, and occurring in cismontane woodland and valley and foothill grassland habitats at elevations between 82 and 2,953 feet. The Inventory also describes this species as extirpated in Contra Costa County. The Study Area falls within the known range of the species; the ECCCHCP/NCCP does not contain a model predicting where this species may occur within the plan area. The ruderal grasslands in the Study Area do not provide suitable habitat for showy madia, and it was not detected during the rare plant surveys.

IV. SPECIES-SPECIFIC AVOIDANCE AND MINIMIZATION REQUIREMENTS

Please complete and/or provide the following attachments:

1) Species-Specific Avoidance and Minimization for Selected Covered Wildlife
Complete the following table and check the applicable box for covered species determined by the planning surveys.

Table 3. Summary of Applicable Preconstruction Surveys, Avoidance and Minimization, and Construction Monitoring Requirements[11]

Species	Preconstruction Survey Requirements	Avoidance and Minimization Requirements	Construction Monitoring Required	Info in HCP
☒ San Joaquin kit fox	• On project footprint and 250-ft radius, map all dens (>5 in. diameter) and determine status • Provide written survey results to USFWS within 5 working days after surveying	• Monitor dens • Destroy unoccupied dens • Discourage use of occupied (non-natal) dens	• Establish exclusion zones (>50 ft for potential dens, and >100 ft for known dens) • Notify USFWS of occupied natal dens	pp. 6-37 to 6-38
☒ Western burrowing owl	• On project footprint and 500-ft radius, identify and map all owls and burrows, and determine status • Document use of habitat (e.g. breeding, foraging)	• Avoid occupied nests during breeding season (Feb-Sep) • Avoid occupied burrows during nonbreeding season (Sep – Feb) • Install one-way doors in occupied burrow (if avoidance not possible) • Monitor burrows with doors installed	• Establish buffer zones (250 ft around nests) • Establish buffer zones (160 ft around burrows)	pp. 6-39 to 6-41
☐ Giant garter snake	• Delineate aquatic habitat up to 200 ft from water's edge on each side • Document any occurrences	• Limit construction to Oct-May • Dewater habitat April 15 – Sep 30 prior to construction • Minimize clearing for construction	• Delineate 200 ft buffer around potential habitat near construction • Provide field report on monitoring efforts • Stop construction activities if snake is encountered; allow snake to passively relocate • Remove temporary fill or debris from construction site • Mandatory training for construction personnel	pp. 6-43 to 6-45
☐ California tiger salamander	• Provide written notification to USFWS and CDFW regarding timing of construction and likelihood of occurrence on site	• Allow agency staff to translocate species, if requested	• None	p. 6-45
☒ California red-legged frog	• Provide written notification to USFWS and CDFW regarding timing of construction and likelihood of occurrence on site	• Allow agency staff to translocate species, if requested	• None	p. 6-46
☐ Covered shrimp	• Establish presence/absence • Document and evaluate use of all habitat features (e.g. vernal pools, rock outcrops)	• Establish buffer near construction activities • Prohibit incompatible activities	• Establish buffer around outer edge of all hydric vegetation associated with habitat (50 ft or immediate watershed, whichever is larger) • Mandatory training for construction personnel	pp. 6-46 to 6-48

[11] The requirements in this table are not comprehensive; they are detailed in the next section on the following page.

☐ Townsend's big-eared bat	• Establish presence/absence • Determine if potential sites were recently occupied (guano)	• Seal hibernacula before Nov • Seal nursery sites before April • Delay construction near occupied sites until hibernation or nursery seasons are over	• None	pp. 6-36 to 6-37
☒ Swainson's hawk	• Determine whether potential nests are occupied	• No construction within 1,000 ft of occupied nests within breeding season (March 15 - Sep 15) • If necessary, remove active nest tree after nesting season to prevent occupancy in second year.	• Establish 1,000 ft buffer around active nest and monitor compliance (no activity within established buffer)	pp. 6-41 to 6-43
☒ Golden Eagle	• Establish presence/absence of nesting eagles	• No construction within ½ mile near active nests (most activity late Jan – Aug)	• Establish ½ mile buffer around active nest and monitor compliance with buffer	pp. 6-38 to 6-39

2) Required Preconstruction Surveys, Avoidance and Minimization, and Construction Monitoring

All preconstruction surveys shall be conducted in accordance with the requirements set forth in Section 6.4.3, Species-Level Measures, and Table 6-1 of the ECCC HCP/NCCP. Detailed descriptions of preconstruction surveys, avoidance and minimization, and construction monitoring applicable to each of the wildlife species in Table 3 are located below. Please remove the species-specific measures that do not apply to your project (highlight entire section and delete).

SAN JOAQUIN KIT FOX

Preconstruction Surveys

Prior to any ground disturbance related to covered activities, a USFWS/CDFW– approved biologist will conduct a preconstruction survey in areas identified in the planning surveys as supporting suitable breeding or denning habitat for San Joaquin kit fox. The surveys will establish the presence or absence of San Joaquin kit foxes and/or suitable dens and evaluate use by kit foxes in accordance with USFWS survey guidelines (U.S. Fish and Wildlife Service 1999). Preconstruction surveys will be conducted within 30 days of ground disturbance. On the parcel where the activity is proposed, the biologist will survey the proposed disturbance footprint and a 250-foot radius from the perimeter of the proposed footprint to identify San Joaquin kit foxes and/or suitable dens. Adjacent parcels under different land ownership will not be surveyed. The status of all dens will be determined and mapped. Written results of preconstruction surveys will be submitted to USFWS within five working days after survey completion and before the start of ground disturbance. Concurrence is not required prior to initiation of covered activities.

If San Joaquin kit foxes and/or suitable dens are identified in the survey area, the measures described below will be implemented.

Avoidance and Minimization Requirements

- If a San Joaquin kit fox den is discovered in the proposed development footprint, the den will be monitored for three days by a USFWS/CDFW– approved biologist using a tracking medium or an infrared beam camera to determine if the den is currently being used.
- Unoccupied dens should be destroyed immediately to prevent subsequent use.
- If a natal or pupping den is found, USFWS and CDFW will be notified immediately. The den will not be destroyed until the pups and adults have vacated and then only after further consultation with USFWS and CDFW.
- If kit fox activity is observed at the den during the initial monitoring period, the den will be monitored for an additional five consecutive days from the time of the first observation to allow any resident animals to move to another den while den use is actively discouraged. For dens other than natal or pupping dens, use of the den can be discouraged by partially plugging the entrance with soil such that any resident animal can easily escape. Once the den is determined to be unoccupied it may be excavated under the direction of the biologist. Alternatively, if the animal is still present after five or more consecutive days of plugging and monitoring, the den may have to be excavated when, in the judgment of a biologist, it is temporarily vacant (i.e., during the animal's normal foraging activities).

Construction Monitoring

If dens are identified in the survey area outside the proposed disturbance footprint, exclusion zones around each den entrance or cluster of entrances will be demarcated. The configuration of exclusion zones should be circular, with a radius measured outward from the den entrance(s). No covered activities will occur within the exclusion zones. Exclusion zone radii for potential dens will be at least 50 feet and will be demarcated with four to five flagged stakes. Exclusion zone radii for known dens will be at least 100 feet and will be demarcated with staking and flagging that encircles each den or cluster of dens but does not prevent access to the den by kit fox.

WESTERN BURROWING OWL

Preconstruction Surveys

Prior to any ground disturbance related to covered activities, a USFWS/CDFW- approved biologist will conduct a preconstruction survey in areas identified in the planning surveys as having potential burrowing owl habitat. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines (California Department of Fish and Game 1995).

On the parcel where the activity is proposed, the biologist will survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls will be identified and mapped. Surveys will take place no more than 30 days prior to construction. During the breeding season (February 1– August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1–January 31), surveys will document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted.

Avoidance and Minimization and Construction Monitoring

This measure incorporates avoidance and minimization guidelines from CDFW's *Staff Report on Burrowing Owl Mitigation* (California Department of Fish and Game 1995).

If burrowing owls are found during the breeding season (February 1 – August 31), the project proponent will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance will include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 – January 31), the project proponent should avoid the owls and the burrows they are using, if possible. Avoidance will include the establishment of a buffer zone (described below).

During the breeding season, buffer zones of at least 250 feet in which no construction activities can occur will be established around each occupied burrow (nest site). Buffer zones of 160 feet will be established around each burrow being used during the nonbreeding season. The buffers will be delineated by highly visible, temporary construction fencing.

If occupied burrows for burrowing owls are not avoided, passive relocation will be implemented. Owls should be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors should be in place for 48 hours prior to excavation. The project area should be monitored daily for one week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 1995). Plastic tubing or a similar structure should be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

CALIFORNIA RED- LEGGED FROG

Minimization

Written notification to USFWS, CDFW, and the Implementing Entity, including photos and habitat assessment, is required prior to disturbance of any suitable breeding habitat. The project proponent will also notify these parties of the approximate date of removal of the breeding habitat at least 30 days prior to this removal to allow USFWS or CDFW staff to translocate individuals, if requested. USFWS or CDFW must notify the project proponent of their intent to translocate California red-legged frog within 14 days of receiving notice from the project proponent. The applicant must allow USFWS or CDFW access to the site prior to construction if they request it.

There are no restrictions under this Plan on the nature of the disturbance or the date of the disturbance unless CDFW or USFWS notify the project proponent of their intent to translocate individuals within the required time period. In this case, the project proponent must coordinate the timing of disturbance of the breeding habitat to allow USFWS or CDFW to translocate the individuals. USFWS and CDFW shall be allowed 45 days to translocate individuals from the date the first written notification was submitted by the project proponent (or a longer period agreed to by the project proponent, USFWS, and CDFW).

SWAINSON'S HAWK

Preconstruction Survey

Prior to any ground disturbance related to covered activities that occurs during the nesting season (March 15–September 15), a qualified biologist will conduct a preconstruction survey no more than one month prior to construction to establish whether Swainson's hawk nests within 1,000 feet of the project site are occupied. If potentially occupied nests within 1,000 feet are off the project site, then their occupancy will be determined by observation from public roads or by observations of Swainson's hawk activity (e.g., foraging) near the project site. If nests are occupied, minimization measures and construction monitoring are required (see below).

Avoidance and Minimization and Construction Monitoring

During the nesting season (March 15–September 15), covered activities within 1,000 feet of occupied nests or nests under construction will be prohibited to prevent nest abandonment. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be used, the Implementing Entity will coordinate with CDFW/USFWS to determine the appropriate buffer size.

If young fledge prior to September 15, covered activities can proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant can apply to the Implementing Entity for a waiver of this avoidance measure. Any waiver must also be approved by USFWS and CDFW. While the nest is occupied, activities outside the buffer can take place.

All active nest trees will be preserved on site, if feasible. Nest trees, including non-native trees, lost to covered activities will be mitigated by the project proponent according to the requirements below.

Mitigation for Loss of Nest Trees

The loss of non-riparian Swainson's hawk nest trees will be mitigated by the project proponent by:

- If feasible on-site, planting 15 saplings for every tree lost with the objective of having at least five mature trees established for every tree lost according to the requirements listed below.

  AND either

  1) Pay the Implementing Entity an additional fee to purchase, plant, maintain, and monitor 15 saplings on the HCP/NCCP Preserve System for every tree lost according to the requirements listed below, OR

  2) The project proponent will plant, maintain, and monitor 15 saplings for every tree lost at a site to be approved by the Implementing Entity (e.g., within an HCP/NCCP Preserve or existing open space linked to HCP/NCCP preserves), according to the requirements listed below.

The following requirements will be met for all planting options:

- Tree survival shall be monitored at least annually for five years, then every other year until year 12. All trees lost during the first five years will be replaced. Success will be reached at the end of 12 years if at least five trees per tree lost survive without supplemental irrigation or protection from herbivory. Trees must also survive for at least three years without irrigation.
- Irrigation and fencing to protect from deer and other herbivores may be needed for the first several years to ensure maximum tree survival.
- Native trees suitable for this site should be planted. When site conditions permit, a variety of native trees will be planted for each tree lost to provide trees with different growth rates, maturation, and life span, and to provide a variety of tree canopy structures for Swainson's hawk. This variety will help to ensure that nest trees will be available in the short term (five to ten years for cottonwoods and willows) and in the long term (e.g., Valley oak, sycamore). This will also minimize the temporal loss of nest trees.
- Riparian woodland restoration conducted as a result of covered activities (i.e., loss of riparian woodland) can be used to offset the nest tree planting requirement above, if the nest trees are riparian species.
- Whenever feasible and when site conditions permit, trees should be planted in clumps together or with existing trees to provide larger areas of suitable nesting habitat and to create a natural buffer between nest trees and adjacent development (if plantings occur on the development site).
- Whenever feasible, plantings in the Study Area should occur closest to suitable foraging habitat outside the UDA.
- Trees planted in the HCP/NCCP preserves or other approved offsite location will occur within the known range of Swainson's hawk in the inventory area and as close as possible to high-quality foraging habitat.

GOLDEN EAGLE

Preconstruction Survey

Prior to implementation of covered activities, a qualified biologist will conduct a preconstruction survey to establish whether nests of golden eagles are occupied (see Section 6.3.1, *Planning Surveys*). If nests are occupied, minimization requirements and construction monitoring will be required.

Avoidance and Minimization

Covered activities will be prohibited within 0.5 mile of active nests. Nests can be built and active at almost any time of the year, although mating and egg incubation occurs late January through August, with peak activity in March through July. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be appropriate or that a larger buffer should be implemented, the Implementing Entity will coordinate with CDFW/USFWS to determine the appropriate buffer size.

Construction Monitoring

Construction monitoring will focus on ensuring that no covered activities occur within the buffer zone established around an active nest. Although no known golden eagle nest sites occur within or near the ULL, covered activities inside and outside of the Preserve System have the potential to disturb golden eagle nest sites. Construction monitoring will ensure that direct effects to golden eagles are minimized.

3) Construction Monitoring Plan

Before implementing a covered activity, the applicant will develop and submit a construction monitoring plan to the planning department of the local land use jurisdiction and the East Contra Costa County Habitat Conservancy for review and approval. Elements of a brief construction monitoring plan will include the following:

- Results of planning and preconstruction surveys.[12]
- Description of avoidance and minimization measures to be implemented, including a description of project-specific refinements to the measures or additional measures not included in the HCP/NCCP.
- Description of monitoring activities, including monitoring frequency and duration, and specific activities to be monitored.
- Description of the onsite authority of the construction monitor to modify implementation of the activity.

☒ Check box to acknowledge this requirement.

V. SPECIFIC CONDITIONS ON COVERED ACTIVITIES

1) Check off the HCP conservation measures that apply to the project.

APPLIES TO ALL PROJECTS

☒ **Conservation Measure 1.11. Avoid Direct Impacts on Extremely Rare Plants, Fully Protected Wildlife Species, or Migratory Birds.** This conservation measure applies to all projects. All projects will avoid all impacts on extremely rare plants and fully protected species listed in Table 6-5 of the ECCC HCP/NCCP. See HCP pp. 6-23 to 6-25, and Table 6-5.

APPLIES TO PROJECTS THAT IMPACT COVERED PLANT SPECIES

☐ **Conservation Measure 3.10. Plant Salvage when Impacts are Unavoidable.** This condition applies to projects that cannot avoid impacts on covered plants and help protect covered plants by prescribing salvage whenever avoidance of impacts is not feasible. Project proponents wishing to remove populations of covered plants must notify the Conservancy of their construction schedule to allow the Conservancy the option of salvaging the populations. See HCP pp. 6-48 to 6-50.

APPLIES TO PROJECTS THAT INCLUDE ARE ADJACENT TO STREAMS, PONDS, OR WETLANDS

☒ **Conservation Measure 2.12. Wetland, Pond, and Stream Avoidance and Minimization.** All projects will implement measures described in the HCP to avoid and minimize impacts on wetlands, ponds, streams, and riparian woodland/scrub. See HCP pp. 6-33 to 6-35.

APPLIES TO NEW DEVELOPMENT PROJECTS

☒ **Conservation Measure 1.10. Maintain Hydrologic Conditions and Minimize Erosion.** All new development must avoid or minimize direct and indirect impacts on local hydrological conditions and erosion by incorporating the applicable Provision C.3 Amendments of the Contra Costa County Clean Water Program's (CCCCWP's) amended NPDES Permit (order no. R2-2003-0022; permit no. CAS002912). The overall goal of this measure is to ensure that new development covered under the HCP has no or minimal adverse effects on downstream fisheries to avoid take of fish listed under ESA or CESA. See HCP pp. 6-21 to 6-22.

APPLIES TO NEW DEVELOPMENT PROJECTS THAT INCLUDE OR ARE ADJACENT TO STREAMS, PONDS, OR WETLANDS

☒ **Conservation Measure 1.7. Establish Stream Setbacks.** A stream setback will be applied to all development projects covered by the HCP according to the stream types listed in Table 6-2 of the HCP. See HCP pp. 6-15 to 6-18 and Table 6-2.

APPLIES TO NEW DEVELOPMENT PROJECTS ADJACENT TO EXISTING PUBLIC OPEN SPACE, HCP PRESERVES, OR LIKELY HCP ACQUISITION SITES

☐ **Conservation Measure 1.6. Minimize Development Footprint Adjacent to Open Space.** Project applicants are encouraged to minimize their development footprint and set aside portions of their land to contribute to the HCP Preserve System. Land set aside that contributes to the HCP biological goals and objectives may be credited against development fees. See HCP pages 6-14 to 6-15.

☐ **Conservation Measure 1.8. Establish Fuel Management Buffer to Protect Preserves and Property.** Buffer zones will provide a buffer between development and wildlands that allows adequate fuel management to minimize the risk of wildlife damage to property or to the preserve. The minimum buffer zone for new development is 100 feet. See HCP pages 6-18 to 6-19.

[12] If the preconstruction surveys do not trigger construction monitoring, results of preconstruction surveys should still be submitted to the local jurisdiction and the East Contra Costa County Habitat Conservancy.

☐ **Conservation Measure 1.9. Incorporate Urban-Wildlife Interface Design Elements.** These projects will incorporate design elements at the urban-wildlife interface to minimize the indirect impacts of development on the adjacent preserve. See HCP pp. 6-20 to 6-21.

APPLIES TO ROAD MAINTENANCE PROJECTS OUTSIDE THE UDA

☐ **Conservation Measure 1.12. Implement Best Management Practices for Rural Road Maintenance.** Road maintenance activities have the potential to affect covered species by introducing sediment and other pollutants into downstream waterways, spreading invasive weeds, and disturbing breeding wildlife. In order to avoid and minimize these impacts, BMPs described in the HCP will be used where appropriate and feasible. See HCP pp. 6-25 to 6-26.

APPLIES TO NEW ROADS OR ROAD IMPROVEMENTS OUTSIDE THE UDA

☐ **Conservation Measure 1.14. Design Requirements for Covered Roads Outside the Urban Development Area (UDA).** New roads or road improvements outside the UDA have impacts on many covered species far beyond the direct impacts of their project footprints. To minimize the impacts of new, expanded, and improved roads in agricultural and natural areas of the inventory area, road and bridge construction projects will adopt siting, design, and construction requirements described in the HCP and listed in Table 6-6. See HCP pp. 6-27 to 6-33 and Table 6-6.

APPLIES TO FLOOD CONTROL MAINTENANCE ACTIVITIES

☐ **Conservation Measure 1.13. Implement Best Management Practices for Flood Control Facility Maintenance.** Flood control maintenance activities have the potential to affect covered species by introducing sediment and other pollutants into downstream waterways and disturbing breeding wildlife. In order to avoid and minimize these impacts, BMPs described in the HCP will be used where appropriate and feasible. See HCP pp. 6-26 to 6-27.

2) For all checked conservation measures, describe how the project will comply with each measure. Attach as Attachment C: Project Compliance to HCP Conditions.

VI. MITIGATION MEASURES

1) Mitigation Fee Calculator(s)
Complete and attach the fee calculator (use permanent and/or temporary impact fee calculator as appropriate), and attach as **Attachment D: Fee Calculator(s)**.

2) Briefly describe the amount of fees to be paid and when applicant plans to submit payment.

The Developer, the City, and the East Contra Costa County Habitat Conservancy entered into a Multi-Party Mitigation and Land Dedication In-Lieu of Development Fee Agreement dated August 26, 2019 ("Mitigation Agreement") in which Developer will pay an adjusted HCP development fee and dedicate that certain real property referred to therein as the Nortonville Strip, Britton Property, and Britton Adjacent Property upon mutually agreed terms and provisions.

On December 12, 2019, the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife issued a joint letter approving use of the Mitigation Agreement for the Bridle Gate project. The adjusted fee for the Bridle Gate project is $3,156,002.00.

Construction is expected to commence in late-2023 or early-2024. Fees will be paid in accordance with the Multi-Party Mitigation and Land Dedication In-Lieu of Development Fee Agreement.

ATTACHMENT A: PROJECT DESCRIPTION

Bridle Gate
Project Description
February 2023

The 135.31+/- acre Bridle Gate Tentative Map site is in Brentwood, Contra Costa County, California. The site is within Section 10, in Township 1 North, Range 2 East of the USGS 7.5-minute Brentwood topographic quadrangle (Figure 1). The site is at the west end of Sand Creek Road, just west of Highway 4. Sand Creek flows meanders from west to east across the north part of the site.

The 135.31+/- acre Bridle Gate Tentative Map site includes the 92.13+/acre Bridle Gate project site and 2.64+/- acres of off-site lands for the extension of Sand Creek Road if the Bridle Gate project is developed in advance of the City's overall Sand Creek Road extension project. The Study Area also includes 40.54+/- acres of lands to the north; there will be no improvements in this 40.54+/- acre area.

Discovery Builders, Inc., proposes the development of 286 single-family residential units in the Bridle Gate project site, each with a home and ancillary services (Figure 2a and 2b). Approximately 20 acres of land in the northeast part of the site will be developed for commercial uses. Approximate 14 acres north of Sand Creek is for multi-family development of 258 apartments (Figure 2c). The Bridle Gate project includes over 14 acres of parks and approximately 25 acres of land in the west part of the Bridle Gate project site will remain in open space.

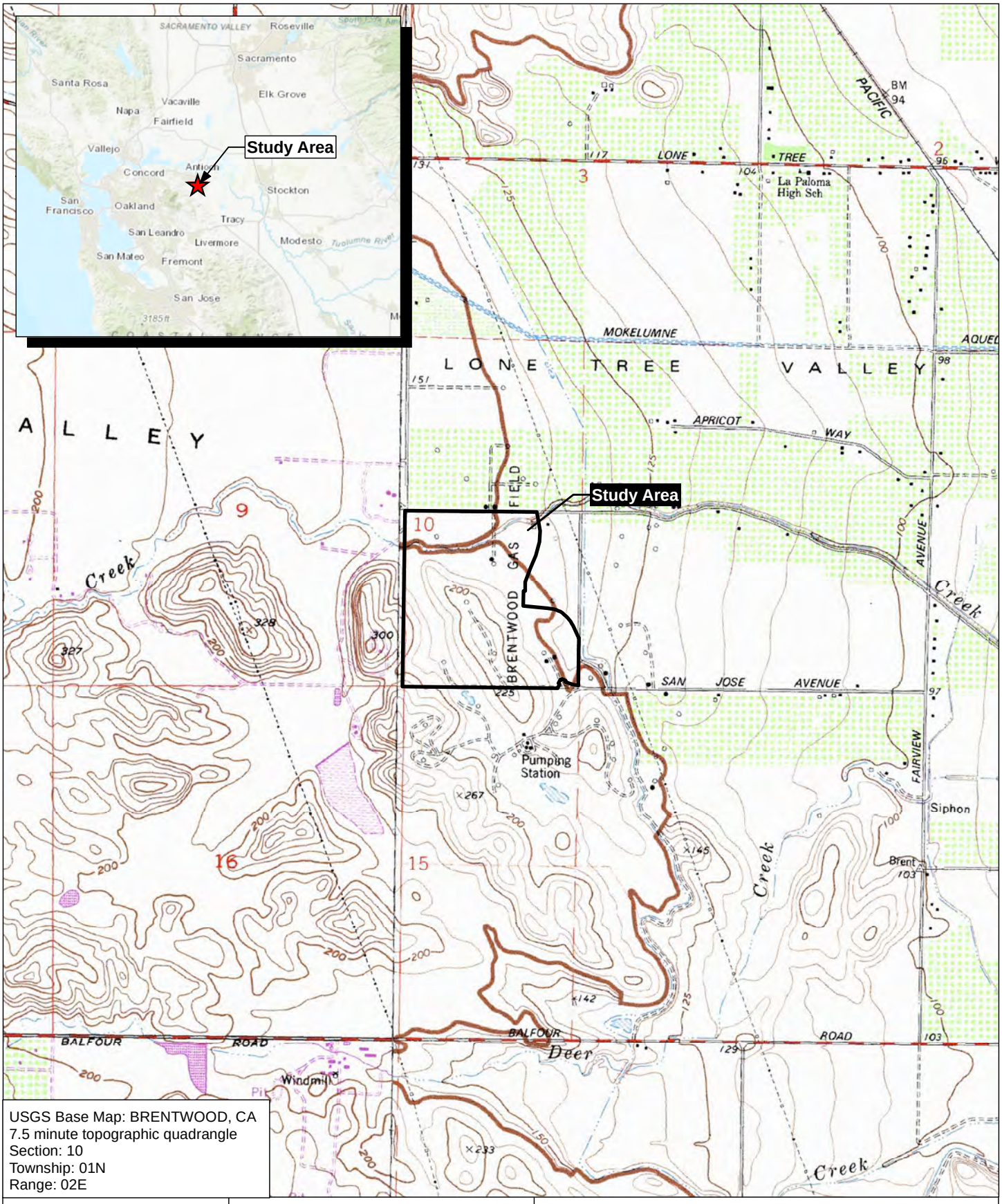
Access to the southeast part of the Bridle Gate project site will be from San Jose Drive and Saint Regis Avenue. Sand Creek Road will be extended approximately 800 feet west to provide access to the north part of the site via Bridle Gate Road. Dependent on which project goes first, the City of Brentwood may construct this section of Sand Creek Road concurrent with their overall "Sand Creek Road Extension" project.

Storm water from the Bridle Gate project site will be conveyed in to several C.3 treatment basins, where it will be treated before being discharged into Sand Creek via existing storm drain outfalls. The new lots will tie into the City's existing sewer and water system.

Standard construction best management practices (BMPs) will be employed during construction to minimize the potential for erosion and off-site transport of fines. BMPs will include use of water trucks, appropriate compaction of soil, and installation of straw wattles, silt fences or other technologies along the perimeter of the site during construction, and stabilization of bare soils as appropriate with seeding, straw, and/or hydrolmulch.

Construction is expected to begin in late-2023 or early-2024 and is expected to continue approximately 2 years.

ATTACHMENT B: FIGURES



USGS Base Map: BRENTWOOD, CA
7.5 minute topographic quadrangle
Section: 10
Township: 01N
Range: 02E

Figure 1

0 1,000 2,000
Feet
1 inch = 2,000 feet

Map Date: 02/07/2023

Site Map/USGS

Bridle Gate

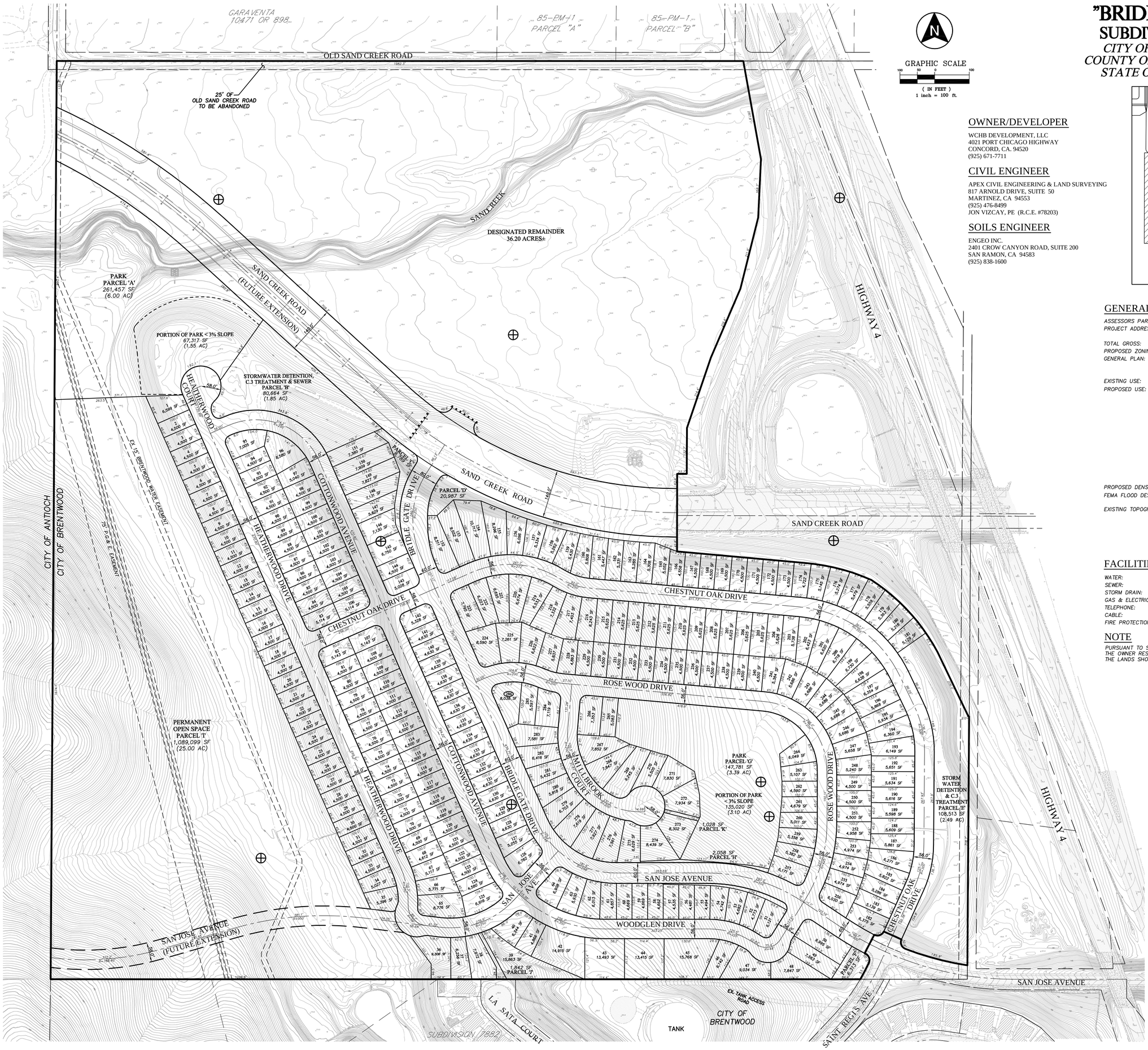
City of Brentwood, Contra Costa County, CA

Moore Biological Consultants

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VESTING TENTATIVE MAP
"BRIDLE GATE"
SUBDIVISION 9586
CITY OF BRENTWOOD
COUNTY OF CONTRA COSTA
STATE OF CALIFORNIA

GRAPHIC SCALE
100 50 0 100
(IN FEET)
1 inch = 100 ft.



OWNER/DEVELOPER

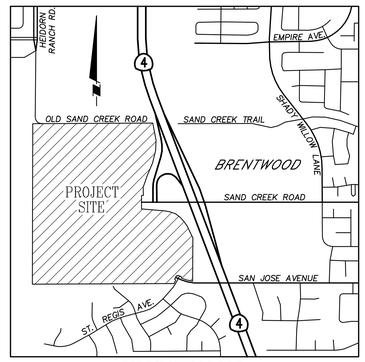
WCHB DEVELOPMENT, LLC
4021 PORT CHICAGO HIGHWAY
CONCORD, CA. 94520
(925) 671-7711

CIVIL ENGINEER

APEX CIVIL ENGINEERING & LAND SURVEYING
817 ARNOLD DRIVE, SUITE 50
MARTINEZ, CA 94553
(925) 476-8499
JON VIZCAY, PE (R.C.E. #78203)

SOILS ENGINEER

ENGEO INC.
2401 CROW CANYON ROAD, SUITE 200
SAN RAMON, CA 94583
(925) 838-1600



VICINITY MAP
NOT TO SCALE

GENERAL

ASSESSORS PARCEL NO(s):	*019-082-007*
PROJECT ADDRESS:	*WEST TERMINUS OF SAN JOSE AVENUE & SAND CREEK ROAD IN BRENTWOOD, CA*
TOTAL GROSS:	*135.31 ACRES*
PROPOSED ZONING:	*PD-PLANNED DEVELOPMENT*
GENERAL PLAN:	*R-LD: RESIDENTIAL-LOW DENSITY* *P: PARK* *P-OS: PERMANENT OPEN SPACE*
EXISTING USE:	*VACANT LAND-CATTLE GRAZING*
PROPOSED USE:	*286 SINGLE FAMILY RESIDENTIAL LOTS (4,500 SF MIN.)* *PARCEL A: 6.00 AC (PARK) (1.55 AC < 3% SLOPE)* *PARCEL B: 1.85 AC (STORM, C.3, SEWER)* *PARCEL C: 0.20 AC (LANDSCAPING)* *PARGEL D: 0.48 AC (LANDSCAPING)* *PARCEL E: 2.49 AC (STORM, C.3)* *PARCEL F: 0.14 AC (LANDSCAPING)* *PARCEL G: 3.39 AC (PARK) (3.10 AC < 3% SLOPE)* *PARCEL H: 0.05 AC (LANDSCAPING)* *PARCEL I: 25.00 AC (OPEN SPACE)* *PARCEL J: 0.04 AC (PEDESTRIAN ACCESS)* *PARCEL K: 0.02 AC (PEDESTRIAN ACCESS)*
PROPOSED DENSITY:	*3 DU/AC (SOUTH OF SAND CREEK ROAD CENTERLINE)*
FEMA FLOOD DESIGNATION:	*ZONES "A", "AE" & "X" (FIRM MAPS 06013C0335F & 06013C0353F, DATED 06-16-2009)*
EXISTING TOPOGRAPHY DATE:	*05-23-2017*

FACILITIES

WATER:	*CITY OF BRENTWOOD*
SEWER:	*CITY OF BRENTWOOD*
STORM DRAIN:	*CITY OF BRENTWOOD*
GAS & ELECTRIC:	*PACIFIC GAS & ELECTRIC*
TELEPHONE:	*AT&T*
CABLE:	*COMCAST*
FIRE PROTECTION:	*CONTRA COSTA COUNTY*

NOTE

PURSUANT TO SECTION 66456.1 OF THE SUBDIVISION MAP ACT, THE OWNER RESERVES THE RIGHT TO FILE MULTIPLE MAPS ON THE LANDS SHOWN ON THIS MAP.

BENCHMARK

CONTRA COSTA COUNTY BM. NO. 982, A P.K. NAIL SET IN SOUTWEST LEG OF P.G.&E. TOWER 200 FEET EAST OF BRIDGE CROSSING SAND CREEK ON OLD SAND CREEK ROAD 40 FEET NORTH OF CENTERLINE OF ROAD. ELEV.=135.43

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS MAP IS DETERMINED BY FOUND MONUMENTS SHOWN HEREON; THE BEARING BEING N89°28'41"W BETWEEN STATION 2129 AND STATION 2120 PER RECORD OF SURVEY NO. 2496 (118 LSM 40). THE BEARING SHOWN ARE ON CALIFORNIA COORDINATE SYSTEM ZONE III (NAD 83). MULTIPLY DISTANCES AS SHOWN BY 0.99993501 TO OBTAIN GRID DISTANCES.

SHEET INDEX

SHEET No.	DESCRIPTION
1	TITLE SHEET
2	PRELIMINARY GRADING & UTILITY PLAN

LEGEND

EXISTING	*PROPOSED*	*ITEM*
		PAVEMENT
		SIDEWALK
		CURB & GUTTER
8" SS	8" SS	*SANITARY SEWER MAIN*
		SANITARY SEWER MANHOLE
8" SD	8" SD	*STORM DRAIN LINE*
		STORM DRAIN MH
		INLET OR CATCH BASIN
		FIRE HYDRANT
6" W	6" W	*WATER LINE & VALVE*
		WATER METER & BACKFLOW DEVICE
		AIR RELEASE VALVE
		SIGN
		STREET LIGHT
		UTILITY POLE
		STREET MONUMENTS
71	75	*CONTOURS*
		RIGHT-OF-WAY
		LOT BOUNDARY
		ADJACENT PROPERTY LINE
		DIRECTION OF DRAINAGE FLOW
		RETAINING WALL
		ABANDONED OIL WELL

THE CITY OF BRENTWOOD
PUBLIC WORKS DEPARTMENT
708 Third Street, Brentwood, CA 94513
Ph: (925) 516-5420 • FAX: (925) 516-5421
www.ci.brentwood.ca.us

APEX CIVIL ENGINEERING & LAND SURVEYING
817 Arnold Drive, Ste. 50
Martinez, CA 94553
Ph: (925) 476-8499
www.apexce.net

NO.	REVISIONS	NO	BY	DATE

DESIGN: JV
DRAWN: STAFF
CHECKED: JV
PROJECT #: 20066

REGISTERED PROFESSIONAL ENGINEER JON J. VIZCAY NO. 78203 CIVIL STATE OF CALIFORNIA

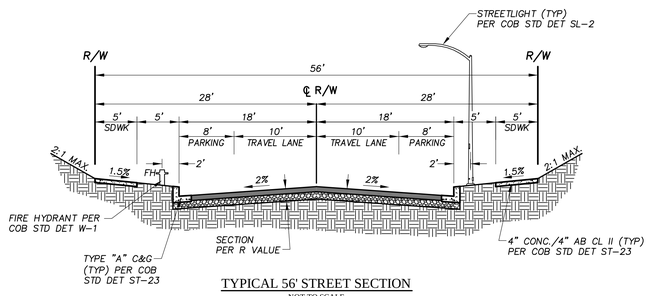
VESTING TENTATIVE MAP
"BRIDLE GATE" SUB # 9586 BRENTWOOD, CA

SHEET 1 OF 2
DATE 01-06-2022

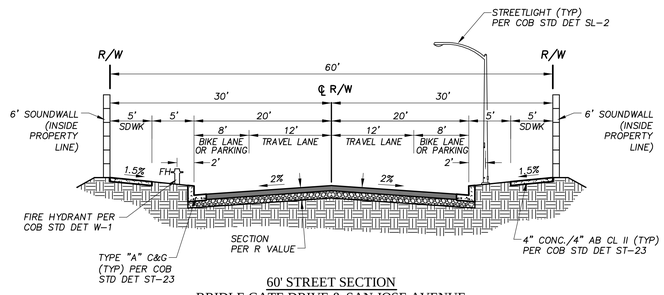
BRIDLE GATE - VESTING TENTATIVE MAP - 01-06-2022

Figure 2a. Bridle Gate Tentative Map Sheet 1

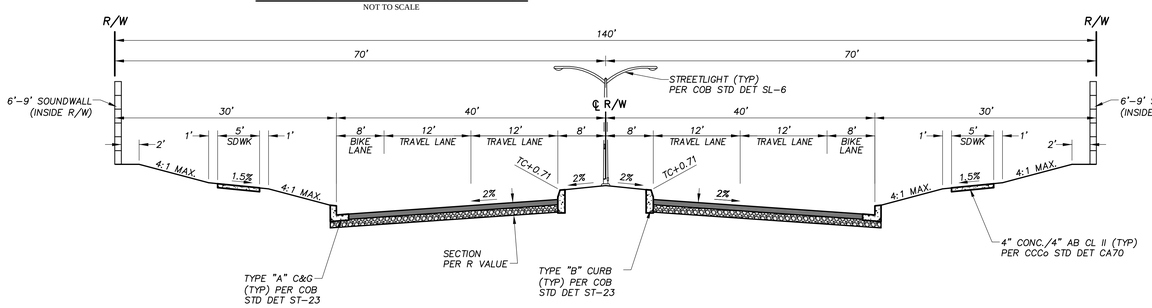
PRELIMINARY GRADING & UTILITY PLAN
"BRIDLE GATE"
SUBDIVISION 9586
CITY OF BRENTWOOD
COUNTY OF CONTRA COSTA
STATE OF CALIFORNIA



TYPICAL 56' STREET SECTION
NOT TO SCALE



60' STREET SECTION
BRIDLE GATE DRIVE & SAN JOSE AVENUE
NOT TO SCALE



140' STREET SECTION
SAND CREEK ROAD
NOT TO SCALE

GRAPHIC SCALE
100 50 0 100
(IN FEET)
1 inch = 100 ft.

ABBREVIATIONS

AB	–	AGGREGATE BASE
AC	–	ACRE
AD	–	AREA DRAIN
BW	–	BOTTOM OF WALL
CB	–	CATCH BASIN
CCWD	–	
COB	–	CITY OF BRENTWOOD
CONC	–	CONCRETE
DET	–	DETAIL
DU	–	DWELLING UNITS
EX	–	EXISTING
FC	–	FACE OF CURB
FF	–	FINISH FLOOR
FG	–	FINISH GRADE
FL	–	FLOW LINE ELEVATION
G	–	GRATE ELEVATION
GL	–	GARAGE LIP ELEVATION
HP	–	HIGH POINT
LF	–	LINEAR FEET
P	–	PAD
℄	–	PROPERTY LINE
PVC	–	POLYVINYL CHLORIDE
R/W	–	RIGHT OF WAY
SD	–	STORM DRAIN
SDWK	–	SIDEWALK
SF	–	SQUARE FEET
SO	–	SIDE OPENING
SS	–	SANITARY SEWER
SSCO	–	SANITARY SEWER CLEANOUT
SSE	–	SANITARY SEWER EASEMENT
STD	–	STANDARD
TC	–	TOP OF CURB
TW	–	TOP OF WALL
TYP	–	TYPICAL
WTRNCH	–	WATER SERVICES TRENCH

DIAL TOLL FREE
1 800 227 2600
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF NORTHERN CALIFORNIA

NOTE:
THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES DURING CONSTRUCTION.

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NO.	REVISIONS	NO	BY	DATE

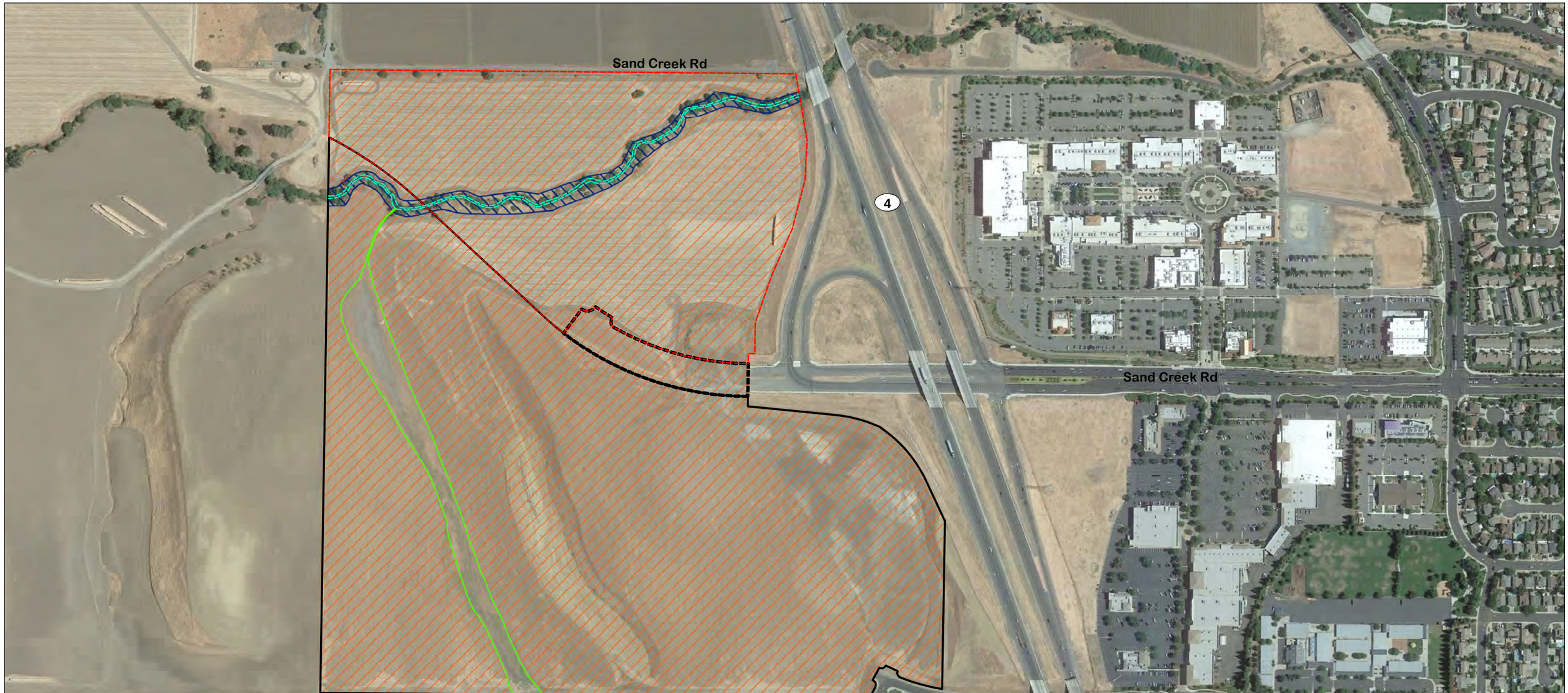
DESIGN: JV
DRAWN: STAFF
CHECKED: JV
PROJECT #: 20066

REGISTERED PROFESSIONAL ENGINEER JOHN J. VITTORY NO. 78203 CIVIL STATE OF CALIFORNIA

VESTING TENTATIVE MAP
PRELIMINARY GRADING & UTILITY PLAN
"BRIDLE GATE" SUB # 9586 BRENTWOOD, CA

SHEET 2 OF 2
DATE 01-06-2022

Figure 2b. Bridle Gate Tentative Map Sheet 2



	Riparian Woodland/Scrub (Acres)*	Seasonal Wetland (Acres)	Ruderal Grassland (Acres)
Project Site	0.70	4.588	86.84
Sand Creek Road Extension	-	-	2.64
Off Site - No Improvements	2.65	-	37.89
Total	**3.35**	**4.588**	**127.37**

**Includes 0.50-acre of Waters of the U.S.*

Figure 3

Moore Biological Consultants

Project Site (92.13 acres)

Off Site - No Improvements (40.54 acres)

Sand Creek Road Extension (2.64 acres)

Ordinary High Water Mark (OHWM)

N W E S

0 250 500

Map Date: 02/13/2023
Aerial Source: Google Earth 06/2018)

Field Verified Landcover Map

Bridle Gate

City of Brentwood, Contra Costa County, CA

C:\EEC_INC\Projects\Moore Biological\Bridlegate\MXD\2023\bridlegate ecco_figure_3_2023.mxd



Disked ruderal grassland in the southwest part of the site, looking north along the western fenceline; 04/16/20. Due to periodic disking for over a decade, the grasslands do not provide suitable aestivation habitat for California tiger salamander.



Ruderal grassland in the northeast part of the site, looking west; 01/13/22.

FIGURE 4a

MOORE BIOLOGICAL **REPRESENTATIVE PHOTOGRAPHS**



Recently planted winter wheat in the northeast part of the site, looking west; 01/13/22.



Ruderal grassland and soil stockpile near Highway 4, looking east; 04/01/20.

FIGURE 4b

MOORE BIOLOGICAL **REPRESENTATIVE PHOTOGRAPHS**



Ruderal grassland in the southeast part of the site, looking north from San Jose Avenue; 01/13/22.



East edge of the site where Sand Creek Road will be extended, providing access to the site, looking west; 01/13/22.

FIGURE 4c

MOORE BIOLOGICAL **REPRESENTATIVE PHOTOGRAPHS**



Recently planted winter wheat along the south edge of the site, looking west from St. Regis Avenue; 01/13/22.



Sand Creek riparian corridor, looking west; 04/16/20.

FIGURE 4d

MOORE BIOLOGICAL **REPRESENTATIVE PHOTOGRAPHS**



Sand Creek near the west edge of the site, looking west; 04/16/20.



Sand Creek, looking west from approximately mid-way down the stream from the west edge of the site; 01/13/22.

FIGURE 4e

MOORE BIOLOGICAL **REPRESENTATIVE PHOTOGRAPHS**



Large cottonwoods along Sand Creek near the east edge of the site, looking east; 04/16/20.



Sand Creek approximately 800 feet west of the east edge of the site, looking southwest; 04/16/20. Sand Creek provides poor quality habitat for California red-legged frog.

FIGURE 4f

MOORE BIOLOGICAL **REPRESENTATIVE PHOTOGRAPHS**



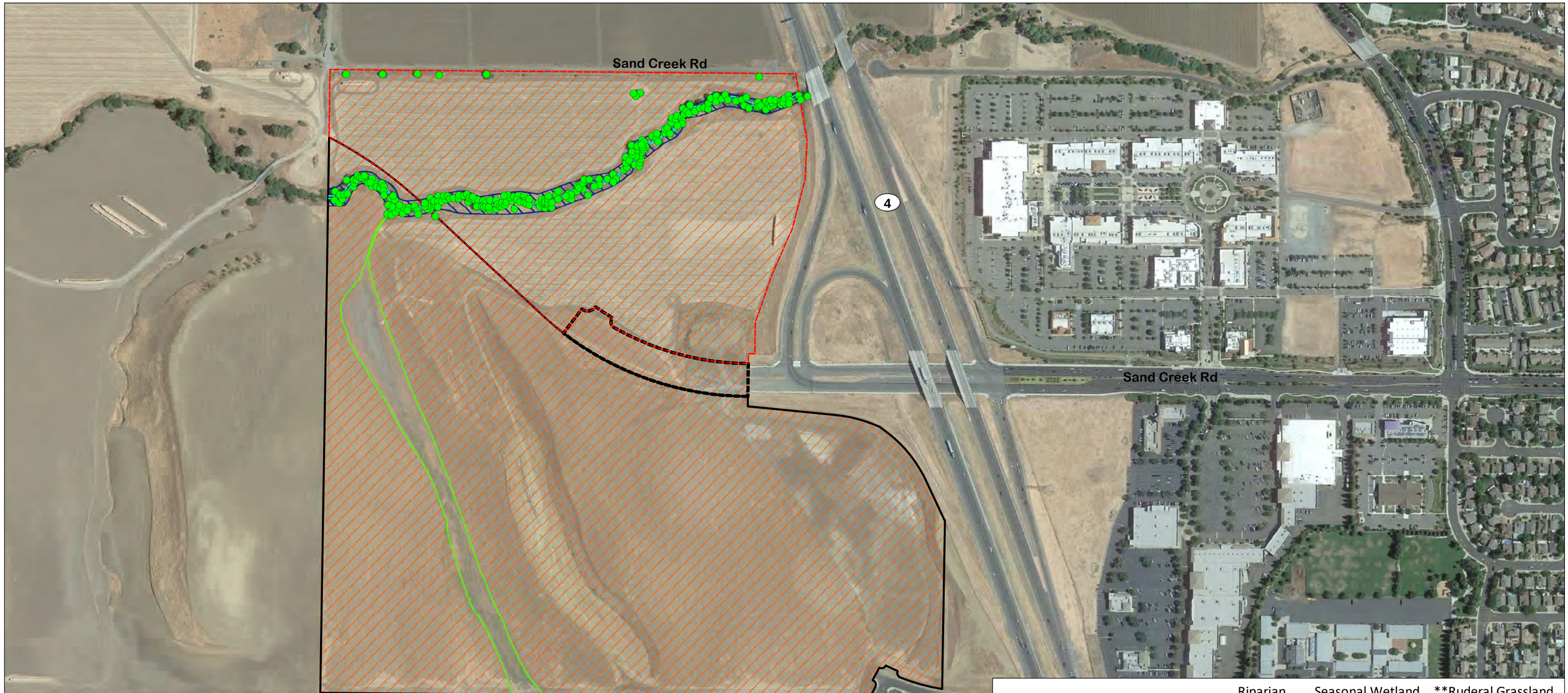
Seasonal wetland swale in the west part of the site, looking northeast; 01/13/22.



Off-site pond just south of the site, looking southwest; 04/01/20. Areas to the south of this pond drain north in to the seasonal wetland swale.

FIGURE 4g

MOORE BIOLOGICAL **REPRESENTATIVE PHOTOGRAPHS**



	Riparian Woodland/Scrub (Acres)*	Seasonal Wetland (Acres)	**Ruderal Grassland (Acres)
Project Site	0.70	4.588	86.84
Sand Creek Road Extension	-	-	2.64
Off Site - No Improvements	2.65	-	37.89
Total	**3.35**	**4.588**	**127.37**

**Includes 0.50-acre of Waters of the U.S.*

**Assumed habitat for western burrowing owl and San Joaquin kit fox.

Figure 5a

Moore Biological Consultants

Project Site (92.13 acres)

Sand Creek Road Extension (2.64 acres)

Off Site - No Improvements (40.54 acres)

Ordinary High Water Mark (OHWM); area below the OHWM potential breeding habitat for California red-legged frog.

Trees; assumed habitat for Swainson's hawk, golden eagle, and white-tailed kite.

N W E S

0 250 500

Map Date: 02/13/2023
Aerial Source: Google Earth 06/2018)

Planning Survey Species Habitat Map

Bridle Gate

City of Brentwood, Contra Costa County, CA

C:\EEC_INC\Projects\Moore Biological\Bridlegate\MXD\2023\bridlegate eccco figure 5a 2023.mxd

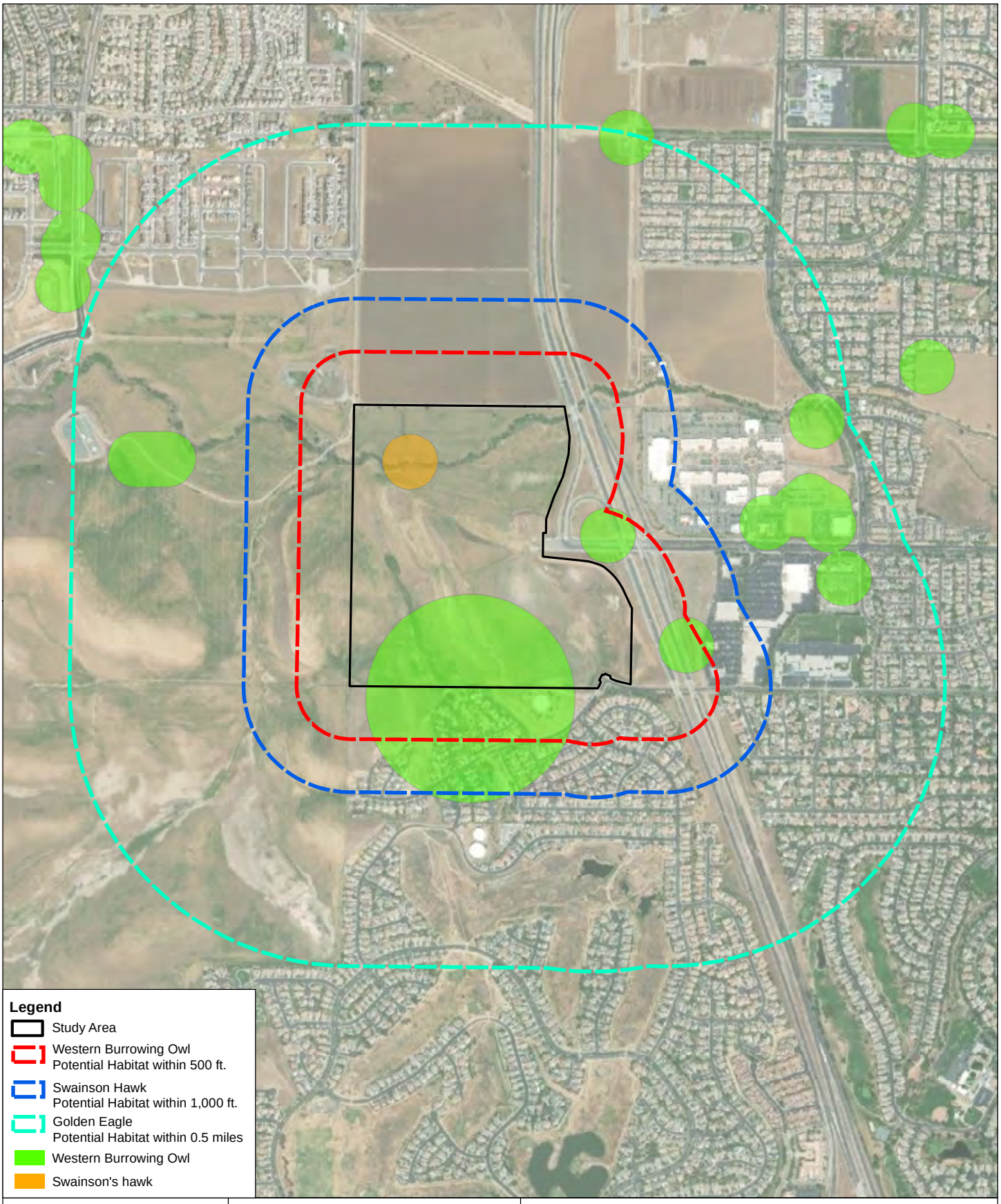


Figure 5b

Moore Biological Consultants

0 500 1,000

N W E S

Map Date: 02/13/2023
Aerial Photo: Maxar 05/26/2021

Regional Species Habitat Map

Bridle Gate

City of Brentwood, Contra Costa County, CA

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ATTACHMENT C: PROJECT COMPLIANCE TO HCP CONDITIONS

Bridle Gate
Project Compliance to HCP Conditions

February 2023

HCP/NCCP Conservation Measure 1.11. Avoid Direct Impacts on Extremely Rare Plants, Fully Protected Wildlife Species, or Covered Migratory Birds:

The potential for special-status plants to occur within the site is considered low, as described in Section III (10).

Species-specific pre-construction surveys, and if needed, monitoring and avoidance requirements for burrowing owl, Swainson's hawk, and golden eagle will be conducted as described in Section IV (2). There is no suitable habitat in the site for ringtail (*Bassariscus astutus*), a "fully protected species," per California Fish and Game Code Section 4700. Similarly, there is no suitable nesting habitat in the site for peregrine falcon (*Falco peregrinus*), a "fully protected species," per California Fish and Game Code Section 3511.

White-tailed kite (*Elanus caeruleus*), another "fully protected species," per California Fish and Game Code Section 3511 could potentially nest in trees in or near the site. Prior to any ground disturbance related to covered activities that occur during the nesting season (March 15-August 31), a qualified biologist will conduct a preconstruction survey no more than 1 month prior to construction to establish whether white-tailed kite is nesting in trees within or visible from the site. In the event active nests are found, an initial 300-foot buffer shall be established around the nest tree. Ground disturbance related to covered activities within the buffer shall either be delayed until a qualified biologist determines nesting is complete, or until the applicant and consults with the Implementing Entity and CDFW and implements CDFW-approved measures to minimize potential disturbance.

Tricolored blackbird (*Agelaius tricolor*), a State of California threatened species, could nest in vegetation in and adjacent to Sand Creek such as patches of wild rose, bulrush, cattails, and willows. On-site grasslands and vegetation could be used by other species of nesting birds protected by the Migratory Bird Treaty Act. If possible, any ground disturbance related to covered activities will occur outside of the general bird nesting season (February 1 through August 31). Alternately, a qualified biologist will conduct a preconstruction survey no more than 2 weeks

prior to any ground disturbance related to covered activities. In the event active raptors or tricolored blackbird nests are found, and initial 300-foot buffer shall be established around the nests. In the event nests o other birds are found, a initial 50-foot buffer shall be established around the nest. Ground disturbance related to covered activities within the buffers shall either be delayed until a qualified biologist determines nesting is complete, or until the applicant consults with the Implementing Entity and CDFW and implements CDFW-approved measures to minimize potential disturbance.

HCP/NCCP Conservation Measure 2.12. Wetland, Pond, and Stream Avoidance and Minimization:

Potentially jurisdictional Waters of the U.S. and wetlands in the site are being avoided to the maximum extent practicable. The stream in the north part of the site (Sand Creek) will not be impacted by the project. A 75-foot stream setback will be implemented along Sand Creek. The seasonal wetland will be preserved in an Open Space parcel and a portion of a park parcel where no improvements are proposed.

The following measures from pages 6-33 through 6-35 will be implemented to avoid and minimize impacts of covered activities on wetlands:

- The project will comply with the stream setback requirements in Conservation Measure 1.7.
- The project will comply with the guidelines in Conservation Measure 1.10 to minimize the effects of urban development on downstream hydrology, streams, and wetlands.
- All wetlands to be avoided by covered activities will be temporarily staked in the field by a qualified biologist.
- The project will establish a buffer zone between Sand Creek and development as described in Conservation Measure 1.7.
- Personnel conducting ground-disturbing activities adjacent to the seasonal wetland in the west part of the site or the buffer zone along Sand Creek will be trained by a qualified biologist in these avoidance and minimization and the permit obligations of project proponents working under the ECCCHCP. Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas.
- Trash generated during project construction will be promptly and properly removed from the site.
- No construction or maintenance vehicles will be refueled within 200 feet of

Sand Creek or the seasonal wetland unless a bermed and lined refueling area is constructed and hazardous material absorbent pads are available in the event of a spill.

- Appropriate erosion-control measures (e.g., fiber rolls, filter fences, vegetative buffer strips) will be used on site to reduce siltation and runoff of contaminants into Sand Creek or the seasonal wetland. Filter fences and mesh will be of material that will not entrap reptiles and amphibians. Erosion control blankets shall be used as a last resort because of their tendency to biodegrade slowly and trap reptiles and amphibians.
- Fiber rolls used for erosion control will be certified as free of noxious weed seed.
- Seed mixtures applied for erosion control will not contain invasive non-native species, and will be composed of native species or sterile nonnative species.
- Herbicides will not be applied within the buffer area along Sand Creek unless needed to control serious invasive plants. In this case, herbicides that have been approved for use by EPA in or adjacent to aquatic habitats may be used as long as label instructions are followed and applications avoid or minimize impacts on covered species and their habitats. Appropriate herbicides may be applied to the ruderal grassland within the buffer area during the dry season to control nonnative invasive species such as yellow star-thistle. Herbicide drift shall be minimized by applying the herbicide as close to the target area as possible.

HCP/NCCP Conservation Measure 1.10. Maintain Hydrologic Conditions and Minimize Erosion:

The project has been designed to maintain hydrologic conditions and minimize erosion. Site drainage will be conveyed to Sand Creek.

The project applicant will develop a Storm Water Pollution Prevention Plan (SWPPP) that will identify best management practices (BMPs) to be implemented to minimize the introduction of foreign material into waterbodies, control stormwater runoff, minimize erosion and sedimentation, and limit the amount of surface disturbance to the area.

Standard construction BMPs will be employed during construction to minimize the potential for erosion and off-site transport of fines. BMPs will include use of water trucks, appropriate compaction of soil, and installation of straw

wattles, silt fences or other technologies along the perimeter of the site during construction, and stabilization of bare soils as appropriate with seeding, straw, and/or hydrolmulch.

HCP/NCCP Conservation Measure 1.7. Establish Stream Setbacks:

A stream is defined in Chapter 3 of the ECCCHCP as "a long, narrow body of flowing water that occupies a channel with defined bed and bank and moves to lower elevations under the force of gravity".

The stream in the north part of the site (Sand Creek) will not be impacted by the project. A 75-foot stream setback will be implemented along Sand Creek.

Stream setbacks are designed to protect existing habitat quality, to protect water quality and hydrologic processes through buffering, and allow for at least minimal restoration (page 6-16). The stream setback measure is intended to achieve several purposes as listed on pages 6-16 and 6-17 of the ECCCHCP, along a variety of stream types. Six of the seven purposes have applicability to the project:

- Maintain or improve water quality by filtering sediments and pollutants from urban runoff before they reach the stream,
- Allow for protection of preserved and restored riparian woodland and scrub within and adjacent to the stream,
- Maintain a buffer zone between urban development and existing and restored nesting habitat for Swainson's hawk and other bird species,
- Maintain and enhance the water quality of the stream to protect native fish populations, including populations of special-status species that occur in downstream creeks (i.e., fall-run Chinook salmon in Marsh Creek),
- Maintain a more viable wildlife corridor for some species (e.g., California red-legged frog, foothill yellow-legged frog) than would be present with a narrower buffer zone, and
- Maximize the natural flood protection value of the floodplain.

ATTACHMENT D: FEE CALCULATOR

***** NOT APPLICABLE DUE TO SETTLEMENT AGREEMENT IN PLACE THAT ESTABLISHES FEES *****

ATTACHMENT E: WETLAND DELINEATION

-121.755914, 37.947132

Sand Creek Rd

6 UP

S-1

5 UP

4

1

2 UP

WS-1

3

4 UP

Sand Creek Rd

San Jose Ave

-121.735904, 37.939270

	Seasonal Wetland (SW-1)		Stream (S-1)	
	Acres	SF	Acres	SF
Project Site	4.588	199,850	0.112	4,879
Sand Creek Road Extension	-	-	-	-
Off Site - No Improvements	-	-	0.386	16,830
	4.588	**199,850**	**0.498**	**21,709**

Data Disclaimer:
The delineation has been done in accordance with the 1987 Wetlands Delineation Manual, US Army Corps of Engineers and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. The boundaries and jurisdictional status of all waters shown on this map are preliminary and subject to verification by the U.S. Army Corps of Engineers.

Aerial Source: Google Earth (06/2018)

Moore Biological Consultants

Project Site (92.13 acres)

Sand Creek Road Extension (2.64 acres)

Off Site - No Improvements (40.54 acres)

1 3-Parameter Data Point

N

0 200 400

Potential Waters of the U.S. and Wetlands

Bridle Gate

City of Brentwood, Contra Costa County, CA

Map Date: 02/13/2023

Appendix F



BRIDLE GATE
BRENTWOOD, CALIFORNIA

PHASE I ENVIRONMENTAL SITE ASSESSMENT

SUBMITTED TO
Mr. Louis Parsons
West Coast Home Builders, Inc.
4061 Port Chicago Highway, Suite H
Concord, CA 94520

PREPARED BY
ENGEO Incorporated

May 6, 2020

PROJECT NO.
3359.210.001

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ENGEO
Expect Excellence

Project No.
3592.210.001

May 6, 2020

Mr. Louis Parsons
West Coast Home Builders, Inc.
4061 Port Chicago Highway, Suite H
Concord, CA 94520

Subject: Bridle Gate
Sand Creek Road and San Jose Ave.
Brentwood, California

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Dear Mr. Parsons:

ENGEO is pleased to present our phase I environmental site assessment of the subject property (Property), located in Brentwood, California. The attached report includes a description of the site assessment activities, along with ENGEO's findings, opinions, and conclusions regarding the Property.

ENGEO has the specific qualifications based on education, training, and experience to assess the nature, history, and setting of the Property, and has developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312 and the American Standard Testing Method (ASTM) Practice E1527-13. We declare that, to the best of our professional knowledge and belief, the responsible charge for this study meets the definition of Environmental Professional as defined in Section 312.10 of 40 CFR Part 312 and ASTM E1527-13.

We are pleased to be of service to you on this project. If you have any questions concerning the contents of our report, please contact us.

Sincerely,

ENGEO Incorporated

Brooke Spruit, PE

Shawn Munger, CHG

bs/sm/cjn

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EXECUTIVE SUMMARY

ENGEO conducted a phase I environmental site assessment for the property located at Sand Creek Road and San Jose Ave. in Brentwood, California (Property). The Property is approximately 133.7 acres in area and is identified by Assessor's Parcel Number (APN) 019-082-007.

The Property consists of partially graded undeveloped land being dry farmed. Review of historical records indicates that the Property has been used for dry farming of grains or hay from at least 1939 until the late 1990s. Between 1962 and 1966, seven oil wells were drilled on the subject property and a tank complex and production water impoundment was built in the southeastern portion of the site to separate the oil/water mixture, store oil, and collect the natural oil from the wells. These oil production facilities were decommissioned in between 1994 and 1996. Records of abandonment were reviewed for all the wells shown on-site (Figure 2).

This assessment included a review of local, state, tribal, and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources. A reconnaissance of the Property was conducted to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially hazardous materials and interviews with persons knowledgeable about current and past site use.

The site reconnaissance and records review did find documentation of past soil or groundwater impairments, which were subsequently mitigated and provided closure by RWQCB in 1996. A review of regulatory databases maintained by county, state, tribal, and federal agencies found documentation of hazardous materials discharge on the Property; however, these previous impacts were mitigated under the oversight of the RWQCB and provided closure. No contaminated facilities were identified within the appropriate American Society for Testing and Materials (ASTM) search distances that would reasonably be expected to impact the Property.

Based on the findings of this assessment, one Recognized Environmental Condition (REC), one historical REC, and no controlled RECs were identified for the Property.

The following historical REC was identified:

- Seven oil production wells operated on the Property from 1962 to 1996 (Figure 2). These wells were decommissioned and abandoned in accordance with the Department of Oil and Gas (now CalGEM) regulations. Records of abandonment were reviewed on the CalGEM website. The Property also contained an above-ground storage tank complex for the separation of oil, condensate, and water which was decommission by 1996. The former Brentwood crude oil pipeline also operated within the Property (Figure 2). Remedial activities for the decommissioning of the well sites and tank farm included soil, excavation, bioremediation, soil sampling/analysis and groundwater monitoring. Confirmation sampling and laboratory testing demonstrated successful remediation to the approved cleanup objectives set forth by Central Valley RWQCB. Closure letters for the Sullenger Tank Farm, Ward Tank Farm, and Wells 3-10, 34-10, 32-10, and 38-10 were issued in 1996 through 2000 by the Central Valley RWQCB. Confirmation samples obtained from the bioremediated soil stockpile had TPH concentrations up to 1,800 parts per million (ppm) which exceeds current TPH residential screening levels. It is likely that TPH concentrations have significantly degraded over time. This can be confirmed with supplemental analysis. We

understand this soil, at the direction of RWQCB, was used as a suitable backfill for oil well remedial excavations.

The following potential environmental REC was identified:

- Possible residual impacts could remain within the vicinity of the former oil wells, the former Brentwood crude oil pipeline, and the former tank farm. These wells were decommissioned and abandoned in accordance with the regulatory requirements of CalGEM..

ENGEO has performed a phase I environmental site assessment in general conformance with the scope and limitations of ASTM E1527-13 and the standards and practices of the All Appropriate Inquiry – Final Rule (40 Code of Federal Regulations Part 312).

It is our opinion that the findings of this study are based on a sufficient level of information obtained during our contracted scope of services to render a conclusion as to whether additional appropriate investigation is required to identify the presence or likely presence of a REC. The following data gap was identified:

- We did not receive a response from the Central Valley RWQCB regarding files pertaining to their oversight of the former oil wells and facilities. We were provided some closure documents from West Coast Home Builders, Inc. which included closure letters for Wells 3-10, 34-10, 32-10, and 38-10 issued in 1996 through 2000 by the Central Valley RWQCB.

ENGEO recommends the following:

<u>Former Oil Well Operations</u>

Seven oil wells decommissioned and abandoned in accordance with the Department of Oil and Gas (CalGEM) requirements, and a former above-ground tank/processing area were located within the Property boundaries. The following is recommended to address the past oil production activities:

- Limited phase II environmental site assessment in the area of the former tank farm and oil wells.
- A topographic survey of Well 36-10.
- Any remaining abandoned oil pipelines found within the areas of the project site planned for development should be removed during construction.
- Preparation of a Soil Management Plan (SMP) could be prepared for the Property prior to construction activity. This SMP could outline procedures and guidelines for handling unanticipated impacted material associated with former oil site use. If indicators of apparent soil contamination (soil staining, odors, debris fill material, etc.) are encountered at the project site, specifically in the vicinity of abandoned oil wells, or during removal of abandoned oil pipelines, the impacted area should be isolated from surrounding, non-impacted areas. The project environmental professional shall obtain samples of the potentially impacted soil for analysis of the contaminants of concern and comparison with current applicable regulatory residential screening levels.
- Prior to final map approval, the project applicant shall submit to the City of Brentwood Engineering Department, for review and approval, plot plans which show that future inhabited structures will not be located directly over the seven on-site abandoned oil wells.

1.0 INTRODUCTION

1.1 PURPOSE OF PHASE I ENVIRONMENTAL SITE ASSESSMENT

This assessment was performed at the request of West Coast Home Builders, Inc. The objective of this phase I environmental site assessment is to identify Recognized Environmental Conditions (RECs) associated with the Property. As defined in the ASTM Standard Practice E1527-13, an REC is "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

1.2 DETAILED SCOPE OF SERVICES

The scope of services performed included the following:

- A review of previous environmental reports prepared for the Property.
- A review of publicly available and practicably reviewable standard local, state, tribal, and federal environmental record sources.
- A review of publicly available and practicably reviewable standard historical sources, aerial photographs, fire insurance maps and physical setting sources.
- A reconnaissance of the Property to review site use and current conditions. The reconnaissance was conducted to check for the storage, use, production or disposal of hazardous or potentially hazardous materials.
- Written/oral interviews with owners/occupants and public sector officials.
- Preparation of this report with our findings, opinions, and conclusions.

1.3 SITE LOCATION AND DESCRIPTION

ENGEO conducted a phase I environmental site assessment for the Property located at Sand Creek Road and San Jose Avenue in Brentwood, California (Figures 1 and 2). The approximately 133.7-acre Property is identified as APN 019-082-007 (Figure 3) and is currently partially graded undeveloped land being dry farmed.

1.4 CURRENT USE OF PROPERTY AND ADJOINING PROPERTIES

The Property is partially graded undeveloped currently being dry farmed. Sand Creek traverses across the northern portion of the Property in the east-west direction.

Interstate 4 borders the Property to the immediate east and commercial development resides further east of Interstate 4. Residential development borders the Property to the south. Primarily undeveloped land resides to the north and west.

1.5 SITE AND VICINITY CHARACTERISTICS

According to published topographic maps, the Property varies in elevation from approximately 220 to 230 feet above mean sea level (msl) central, southern, and western portions of the Property to approximately 130 feet above msl in the northern and eastern portions. Review of

the Antioch South and Brentwood Quadrangle Geologic Map (Dibblee, 2006) found that the Property is underlain by various formations including Qa (surficial sediments consisting of pebble, gravel, sand, and clay), Tkm (Kreyenhagen Formation consisting of sandstone), Tds (Domengine Sandstone consisting of sandstone), Tkn (Kreyenhagen Formation consisting of clay shale or claystone), and Tmge (Meganos Formation consisting of siltstone and silty mudstone).

Geocheck – Physical Setting Source Summary of the Environmental Data Resources, Inc. (EDR) report (Appendix A) indicated no Federal United States Geological Survey (USGS) and no State wells located within 1 mile of the Property. The Physical Setting Source Summary also provided hydrogeologic information for use as an indicator of groundwater flow direction in the immediate area. This section indicated no wells within a mile of the Property.

We reviewed the Department of Water Resources On-line Water Data Library for depth to water in the vicinity of the Property. The website did not identify any wells within 1 mile of the Property. Former monitoring wells within the Property indicated depth to groundwater to be between 17 and 32 feet bgs and flow to be in the easterly direction.

We reviewed EnviroStor, a website maintained by the State of California Department of Toxic Substances Control, and GeoTracker, a website maintained by the State of California Water Resources Control Board, for nearby facilities with records that include depth to groundwater measurements. The following information was obtained regarding local groundwater conditions.

TABLE 1.5-1: Local Groundwater Conditions

PROXIMITY TO PROPERTY	REPORTED DEPTH TO GROUNDWATER	REPORTED GROUNDWATER FLOW DIRECTION
Adjacent NW	20-30 feet bgs	East

The site-specific depth to groundwater and direction of groundwater flow was not determined as part of this assessment. Fluctuations in groundwater levels may occur seasonally and over a period of years due to variations in precipitation, temperature, irrigation, and other factors.

We reviewed the Department of Conservation, Geologic Energy Management (CalGEM), formerly the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR), website and map database to determine if any historic oil and/or gas wells were located within the Property. There are seven plugged and capped oil wells shown within the Property. These wells are shown consistent with 3-10, 38-10, 36, 32-10, 39, and 31 shown on Figure 2. One plugged and capped dry gas well is shown within the Property, consistent with 34-10 shown on Figure 2. Records of abandonment for these wells are summarized in Section 2.0. There are an additional 75 plugged and capped oil and gas wells within a mile of the Property. The following table provides a summary of the abandoned wells in accordance with the Department of Oil and Gas (CalGEM) requirements within the Property:

TABLE 1.5-2

WELL NAME	DATE DRILLED	DATE ABANDONED	APPROXIMATE TOTAL DEPTH (FT BGS)
Ward 39	June 1975	December 1976	4,808
Ward 31	January 1963	April 1986	5,108

WELL NAME	DATE DRILLED	DATE ABANDONED	APPROXIMATE TOTAL DEPTH (FT BGS)
Ward 36-10	June 1964	April 1986	4,541
Ward 3-10	September 1962	August 1992	4,900
Ward 32-10	May 1963	May 1993	4,700
Ward 34-10	November 1963	August 1992	4,200
Ward 38-10	August 1964	February 1994	4,068

2.0 PREVIOUS ENVIRONMENTAL REPORTS

ENGEO; Modified Phase I Environmental Site Assessment; Colchico Parcel; Sand Creek Road, Antioch, California; January 14, 1992.

We reviewed the Modified Phase I ESA for the source of the known undocumented fill placed within the Property. The ESA identified that the borrow site had been used for agricultural purposes since at least the 1950s. Agricultural activity appeared to have been limited to orchards, principally walnut trees. A limited soil sampling program was conducted to determine if soils had been impacted by past agricultural practices. The program included the recovery of two near-surface soil samples analyzed for organochlorine pesticides. No compounds were detected above laboratory detection limits.

Groundwater Technology: Remedial Action Plan; Various Oxy/Shell/Apache Lease Sites; Brentwood Oil Field; Brentwood, California; January 19, 1994.

This Remedial Action Plan (RAP) was designed for the clean-up of crude oil-containing soil at various OXY USA, Inc./Shell Western E&P Inc./Apache Corporation former lease sites in the Brentwood Oil and Gas Field. The Property is included within this larger study. The objectives of the RAP were to excavate and transport soil to a central on-site location and treat using bioremediation technology and/or to a soil recycling facility. Further, a groundwater assessment at three sites was to be addressed after applicable lease site soil is remediated. The RAP prescribed the following:

- Excavation: Soil with concentrations greater than 100 ppm TPH (or greater than 0.3 ppm benzene) were to be excavated for remediation. Soil samples were to be collected from the base and sidewalls of each excavation area.
- Bioremediation: Treatment system where impacted soil is loaded into a 60-mil HDPE lined cell with leachate capture. Treatment cells were to be operated and maintained until soil analyses indicate a total TPH concentration below 100 ppm.

The proposed clean-up levels were as follows:

- TPH (total): 100 ppm
- Benzene: 0.3 ppm
- Toluene: 0.3 ppm
- Ethylbenzene: 1 ppm
- Xylenes: 1 ppm

The RAP indicated the Central Valley division of RWQCB was the lead regulatory agency, however, Contra Costa County Health Agency was to be copied on data and plans.

Groundwater Technology; Additional Assessment Report; Remediation Action Plan Modifications; Various Oxy/Shell/Apache E & P Lease Sites; Brentwood Oil Field; Brentwood, California; December 13, 1994.

This report summarized additional environmental site assessment work and the pilot study results for bioremediation. The purpose of this assessment was to obtain additional site-specific hydrogeologic data and to further define the extent of petroleum hydrocarbons that were potentially present in the shallow water-bearing zone at various lease sites, which included Ward 3-10 and Ward 34-10 within the Property. The pilot study was designed to determine the effectiveness of bioremediating crude oil-containing soil. The pilot study was successful and bioremediation was determined to be an effective treatment.

Four soil borings were drilled and nineteen monitoring wells were installed during June and July 1994 at Enea Capital 2-8 (off-site), Prewett 4-5 (off-site), Ward 3-10 (on-site), and Ward 34-10 (on-site). Two additional borings and four monitoring wells were drilled and installed at Enea Capital 2-8 (off-site), Prewett 4-5 (off-site), and Ward 34-10 (on-site), Groundwater sample analysis showed varying low concentrations of TPH and BTEX for each site and minor PAH concentrations. Soil samples and WET analysis indicated low leaching potential.

The following modifications to the RAP previously submitted in January of 1994 were made:

- Soil with benzene concentrations greater than 5.5 ppm and total TPH concentrations greater than 500 ppm were to be excavated for remediation laterally and to a depth of 10 feet bgs. Confirmatory sidewall samples were to be collected and analyzed for TPH, BTEX, and PAH concentrations. The excavations were to be backfilled with treated soil. *Subsequent remedial work within the Property was performed, which achieved these cleanup objectives (Fluor Daniel, 1996; RWQCB, 1996).*

- Residual hydrocarbon-containing soil below 10 feet with benzene concentrations less than 14 ppm and TPH concentrations less than 10,000 ppm (residential scenario) were to be left in place to undergo naturally occurring biodegradation. Waste Extraction Test (WET) leachibility data indicated a very low leaching potential. The compacted silty/clayey backfill material was concluded an effective barrier to surface infiltration. Additionally, water in the localized upper water-bearing zones was not considered to be beneficial with no future receptors anticipated. *Subsequent remedial work within the Property was performed which achieved these cleanup objectives (Fluor Daniel, 1996; RWQCB, 1996).*

Groundwater Technology; Human Health Based Soil Remediation Target Concentrations Report; Oxy USA, Inc.; Oil and Gas Field; Brentwood/Antioch, California; February 23, 1995.

The purpose of this report was to determine health-protective concentrations of constituents of concern in soil at remediation sites. Remediation target concentrations for groundwater were not addressed in this report. The recommended remediation goals for soil at these sites were determined from the following exposures:

- Surface soil (to a depth of 10 feet bgs) remediation goals were based on the combined adult/child resident most likely exposure which resulted in a risk exposure between 10^{-6} and

10^{-4} and a hazard index of 1.0. Thus, soil with benzene concentrations greater than 2.5 to 250 mg/kg; individual carcinogenic PAH concentrations greater than 20 to 2,000 µg/kg; toluene, ethylbenzene, or xylenes concentrations greater than 200 mg/kg; or individual non-carcinogenic PAH concentrations greater than 40 mg/kg were to be remediated. *Subsequent remedial work within the Property was performed which achieved these cleanup objectives (Fluor Daniel, 1996; RWQCB, 1996).*

- Surface soil (below 10 feet bgs) remediation goals based on indoor inhalation of benzene vapors by residents, and on direct exposures by construction workers for all other compounds. Thus, soil with benzene concentrations greater than 5 to 500 mg/kg; or individual non-carcinogenic PAH concentrations greater than 1,800 mg/kg were to be remediated. *Subsequent remedial work within the Property was performed which achieved these cleanup objectives (Fluor Daniel, 1996; RWQCB, 1996).*

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 39 December 3, 1976.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 31 August 10, 1986.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 36 August 10, 1986.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 3-10; August 18, 1992.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 32-10; May 6, 1993.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 34-10; August 18, 1992.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 38-10; February 28, 1994.

The above well abandonment records were reviewed for the referenced sites within the Property.

Fluor Daniel GTI; Request for Site Closure – Former Ward 3-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 2, 1996.

We reviewed a Request for Site Closure document addressed to RWQCB for the closure of 3-10. Approximately 3,699 cubic yards of impacted soil was excavated from the former Ward 3-10 site. Soil samples were obtained from three excavation locations (A, B, and C). The first excavation area (A) had samples collected from the sidewalls at depths of 2 feet, 5 feet, 10 feet, and 17 feet bgs and from the bottom of the excavation (18 feet bgs). Two other excavation areas (B and C) did not have visual, olfactory, or PID indications of hydrocarbons. Reported constiuents were below approved soil cleanup criteria. *RWQCB issued a closure letter for Well 3-10 in July of 2007 (RWQCB, 2007).*

Fluor Daniel GTI; Request for Site Closure – Former Ward 34-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 2, 1996.

We reviewed a Request for Site Closure document addressed to RWQCB for the closure of Warm 34-10. Approximately 635 cubic yards of impacted soil was excavated from the former Ward 34-10 site. Confirmation samples were collected from the sidewalls at depths of 2 feet, 5 feet, 10 feet, and 18 feet bgs and the base at 18 feet bgs.. Reported constituents were below approved soil cleanup criteria . *RWQCB issued a closure letter for Well 34-10 in July of 2007 (RWQCB, 2007).*

Fluor Daniel GTI; Request for Site Closure – Former Ward Tank Farm Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 2, 1996.

We reviewed a Request for Site Closure document addressed to RWQCB for the closure of Ward Tank Farm. Approximately 25,600 cubic yards of impacted soil was excavated from the former Ward Tank Farm site. Confirmation samples were collected from the sidewalls at depths of 2 feet, 5 feet, 10 feet, 18 feet bgs. BTEX, PAHs, and TPHs were below approved soil cleanup criteria. *RWQCB issued a closure letter for Ward Tank Farm in July of 2007 (RWQCB, 2007).*

RWQCB; Request for Site Closure – Former Ward 32-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 19, 1996.

RWQCB issued closure for the Former Ward 32-10 site, which indicated no further investigation, remedial or removal action, or monitoring is required. This followed implementation of approved remedial action plans. Approximately 1,667 cubic yards of soil was excavated from the former Ward 32-10 site within the Property. Soil samples were obtained from the excavation sidewalls at depths of 2 feet, 5 feet, 10 feet, and 16 feet bgs. Confirmation sampling did not indicate BTEX, PAHs, and TPHs above approve soil cleanup criteria.

RWQCB; Request for Site Closure – Former Ward 35-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 19, 1996.

RWQCB issued closure for the Former Ward 35-10 site (off-site), which indicated no further investigation, remedial or removal action, or monitoring is required. This followed implementation of approved remedial action plans. Approximately 11 cubic yards of soil was excavated from the former Ward 35-10 site within the Property. Impacted material was biotreated on-site. Confirmation samples were obtained at depths of 5 feet, 5 feet, 10 feet, and 18 feet bgs. Base and sidewall confirmation samples were below cleanup objective levels..

RWQCB; Request for Site Closure – Former Ward 37-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 19, 1996.

RWQCB issued closure for the Former Ward 37-10 site (off-site), which indicated no further investigation, remedial or removal action, or monitoring is required. This followed implementation of approved remedial action plans. Approximately 11 cubic yards of soil was excavated from the former Ward 37-10 site within the Property. Visual, odorous, or PID indications of hydrocarbons were not observed. Analyses did not show TPH-mo above laboratory detections.

RWQCB; Request for Site Closure – Former Ward 38-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 19, 1996.

RWQCB issued closure for the Former Ward 38-10 site, which indicated no further investigation, remedial or removal action, or monitoring is required. This followed implementation of approved remedial action plans. Approximately 11 cubic yards of soil was excavated from the former Ward 38-10 site within the Property. Impacted material was biotreated on-site. Visual, odorous, or PID indications of hydrocarbons were not observed. BTEX and TPHs were not reported above detection limits for the 11 confirmation samples obtained.

Fluor Daniel GTI; Groundwater Monitoring and Sampling Activities; Ward 3-10 Lease; Former OXY Oil and Gas Field; Brentwood, California; March 18, 1998.

Seven groundwater monitoring wells were sampled (MW-15, MW-16, MW-56, MW-57, MW-77, MW-78, and MW-79). Samples were analyzed for TPH-g/BTEX, TPH-d/mo, and PAHs. Additionally samples were analyzed for water quality parameters (sulfide, sulfate, nitrite, nitrate, chlorides, TDS, alkalinity) and dissolved metals (iron, aluminum, boron, copper, manganese, arsenic, selenium). Laboratory analyses indicated only one well had detectable concentrations of BTEX. Minor concentrations of toluene, ethylbenzene, and xylenes were reported. TPH-g and TPH in the kerosene range were reported. PAHs were only detected slightly above detection limits in five of the wells.

Fluor Daniel GTI; Groundwater Monitoring and Sampling Activities; Ward 34-10 Lease; Former OXY Oil and Gas Field; Brentwood, California; March 18, 1998.

Seven groundwater monitoring wells were sampled (MW-22, MW-29, MW-54, MW-55, MW-75, MW-76, and MW-96). Samples were analyzed for TPH-g/BTEX, TPH-d/mo, and PAHs. Additionally samples were analyzed for water quality parameters (sulfide, sulfate, nitrite, nitrate, chlorides, TDS, alkalinity) and dissolved metals (iron, aluminum, boron, copper, manganese, arsenic, selenium). Laboratory analyses indicated no wells had detectable concentrations of BTEX and minor TPH concentrations in the diesel and motor oil range. PAHs were detected slightly above detection limits in all seven wells.

Fluor Daniel GTI; Groundwater Monitoring and Sampling Activities; Ward Tank Farm Lease; Former OXY Oil and Gas Field; Brentwood, California; March 18, 1998.

Ten groundwater monitoring wells were sampled including the existing MW-53, MW-65, MW-66, MW-67, MW-68, MW-85, MW-86, and MW-87 wells, and two additional wells installed MW-100 and MW-101. Samples were analyzed for TPH-g/BTEX, TPH-d/mo, and PAHs. Additionally samples were analyzed for water quality parameters (sulfide, sulfate, nitrite, nitrate, chlorides, TDS, alkalinity) and dissolved metals (iron, aluminum, boron, copper, manganese, arsenic, selenium). Laboratory analyses indicated that two wells had detectable concentrations of BTEX. Minor detections of TPHs were detected. PAHs were detected slightly above detection limits in seven wells.

RWQCB; No Further Action Required; Brentwood Oil and Gas Field, Contra Costa County; July 7, 2000.

RWQCB reviewed a closure report that included documentation that showed a total of 30 monitoring well wells were properly abandoned at Ward 34-10, Ward 3-10, Ward Tank Farm, and Sullenger Tank farm. The letter referenced the closure report indicated low levels of TPHs

as gasoline, kerosene, and diesel detected in soil confirmation samples below cleanup objective levels. Benzene and toluene were not detected. Ethylbenzene and xylenes were detected below water quality objectives at Ward 3-10 and Ward 34-10. Residual TPH concentrations were reported above current maximum contaminant levels (MCLs).

Partner Engineering and Science, Inc.; Transaction Screen Assessment Report; Colchico Quail Cove; Antioch, California; September 23, 2019.

A Transaction Screen Assessment (TSA) was prepared for the site located at south side of Prewett Ranch Drive and the west side of Heidcorn Ranch Road in Antioch. Undocumented soil from this site was imported to the Bridle Gate Property according to West Coast Home Builders, Inc. Partner concluded that the possible former use of agricultural chemicals was not expected to represent a significant environmental concern. Partner recommended no further investigation at the site.

3.0 RECORDS REVIEW

3.1 PROPERTY RECORDS

3.1.1 Title Report/Ownership

The Title Report lists recorded land title detail, ownership fees, leases, land contracts, easements, liens, deficiencies, and other encumbrances attached to or recorded against a subject property. Laws and regulations pertaining to land trusts vary from state to state and the detail of information presented in a Title Report can vary greatly by jurisdiction. As a result, ENGEO utilizes a Title Report, when provided to us, as a supplement to other historical record sources.

A Preliminary Title Report for the Property, prepared by Old Republic Title Company and dated March 17, 2020, was provided for our review. The Property title is vested in West Coast Home Builders, Inc. A deed to PG&E is referenced for electrical power transmission lines and a gas pipeline. The title report also states oil and gas leases for the Property. No references to environmental liens, deed restrictions or other potential environmental issues were noted. This report is included in Appendix B.

3.2 HISTORICAL RECORD SOURCES

The purpose of the historical record review is to develop a history of the previous uses or occupancies of the Property and surrounding area in order to identify those uses or occupancies that are likely to have led to recognized environmental conditions on the Property.

3.2.1 Historical Topographic Maps/Aerial Photographs/Sanborn Maps

Historical USGS topographic maps, aerial photographs, and Sanborn Fire insurance maps were reviewed to determine if discernible changes pertaining to the Property had been recorded. EDR provided the following maps and photographs, presented in Appendices D, E, and F.

The site has historically been used for dry farming of grains or hay from at least 1939 until the present time. By 1939, a homesite was located at the northeastern corner of the parcel. Between 1962 and 1964, seven oil wells were drilled on the subject Property. By 1966, two

small tanks and a production water impoundment had been built in the southeastern portion of the Property to separate the oil/water mixture, store oil and collect the condensate from the wells. A review of the 1976 aerial photograph noted a linear trace of disturbed soil along the existing PG&E pipeline easement. These oil production facilities were decommission by 1996. Aerial photographs between 1998 and 2016 show the Property as mostly undeveloped until 2016 when some apparent grading occurred within the southern central portion of the Property.

The parcels north of the subject property were developed for orchard and more recently row crops. East of the subject property, the parcels were used for orchard crops from 1939 to 1981 and row crops after 1981. The parcels to the south and west have been used for grazing or dry farming from the earliest photographs reviewed. A residential development was built to the south of the Property and Interstate 4 to the east in the early 2000's. An interchange was built to the east along Interstate 4 in the 2016 photograph.

3.2.2 City Directory

City Directories, published since the 18th century for major towns and cities, list the name of the resident or business associated with each address. A city directory search conducted by EDR is located in Appendix F. The Property is not associated with listings. Surrounding listings are primarily residential and commercial.

3.3 ENVIRONMENTAL RECORD SOURCES

EDR performed a search of federal, tribal, state, and local databases regarding the Property and nearby properties. Details regarding the databases searched by EDR are provided in Appendix A. A list of the facilities documented by EDR within the approximate minimum search distance of the Property is provided below.

3.3.1 Environmental Records

3.3.1.1 Subject Property

The Property is listed on Environmental Record source databases as NPDES and CIWQS for Bridle Gate. This is associated with stormwater permitting during grading.

3.3.1.2 Other Properties

The following databases include facilities listed within the appropriate ASTM search distances of the Property on Environmental Records sources.

TABLE 3.3.1.2-1

FACILITY	STREET	DATABASES
SAND CREEK STATION	HEIDORN RANCH & SAND CREEK	CONTRA COSTA CO. SITE LIST
VICTORIA SECRET STORE #1411	2845 SAND CREEK RD SPC E-4	CERS HAZ WASTE
SHELL YARD	3052 HEIDORN RANCH RD	CPS-SLIC, CDL, CERS
THE TALBOTS INC. #1193	2565 SAND CREEK RD STE 104	CERS HAZ WASTE

FACILITY	STREET	DATABASES
LENSCRAFTERS #5612	2565 SAND CREEK RD STE 124	CONTRA COSTA CO. SITE LIST, HAZNET, HWTS, CONTRA COSTA CO. SITE LIST, CERS HAZ WASTE, RCRA NONGEN/NLR
ROUND TABLE PIZZA	2540 SAND CREEK RD	CONTRA COSTA CO. SITE LIST
EXPRESS FASHION OPERATIONS LLC	2545 SAND CREEK RD	CONTRA COSTA CO. SITE LIST, HAZNET, CERS HAZ WASTE, HWTS, RCRA NONGEN/NLR
BRENTWOOD SHOPPING CENTER	2200 SAN JOSE AVENUE	CPS-SLIC, CERS
ROSS DRESS FOR LESS #0629	2520 SAND CREEK RD	CONTRA COSTA CO. SITE LIST, HAZNET, CERS HAZ WASTE, HWTS, RCRA NONGEN/NLR
HOLLISTER CO	2505 SAND CREEK RD	CONTRA COSTA CO. SITE LIST, CERS HAZ WASTE
BATH & BODY WORKS #2077	2505 SAND CREEK RD STE H-2	CERS, CERS HAZ WASTE, RCRA NONGEN/NLR
HOLLISTER CO	2505 SAND CREEK RD	RCRA NonGen / NLR
KELLY-MOORE PAINT CO INC	2480 SAND CREEK RD	RCRA NonGen / NLR, CONTRA COSTA CO. SITE LIST, HAZNET, CERS, CERS HAZ WASTE, HWTS
PARTY CITY #444 BRENTWOOD	2470 SAND CREEK RD	CONTRA COSTA CO. SITE LIST, HAZNET, CHMIRS, CERS, CERS HAZ WASTE, HWTS, RCRA NONGEN/NLR
REI #126	2475 S SAND CREEK RD 100	CONTRA COSTA CO. SITE LIST
HOMEGOODS 0237	2460 SAND CREEK RD	RCRA NonGen / NLR, CONTRA COSTA CO. SITE, CERS HAZ WASTE
ULTA BEAUTY 353	2465 SAND CREEK RD	RCRA NonGen / NLR, CONTRA COSTA CO. SITE LIST, HAZNET, CERS, CERS HAZ WASTE, HWTS
MAC 695434	2455 SAND CREEK RD STE 116	CONTRA COSTA CO. SITE LIST, HAZNET, NPDES, CIWQS, HWTS, CERS HAZ WASTE, RCRA NONGEN/NLR
TJ MAXX 0858	2450 SAND CREEK RD	CONTRA COSTA CO. SITE LIS, HAZNET, CERS HAZ WASTE, HWTS, RCRA NONGEN/NLR
SHELL PURCHASE	SAND CREEK ROAD	HIST UST, EMI, CERS
COSMOPROF BEAUTY	2440 SAND CREEK RD STE E 2	RCRA NonGen / NLR, CONTRA COSTA CO. SITE LIST, CERS HAZ WASTE
BJ'S RESTAURANT & BREWHOUSE	2365 SAND CREEK RD	CONTRA COSTA CO. SITE LIST, NPDES
RALEY'S #336	2400 SANDCREEK RD	FINDS, RCRA NONGEN/NLR, CONTRA COSTA CO. SITE, CONTRA COSTA CO. SITE
EQUILON PIPLINE CO LLC	3052 SAND CREEK RD	CONTRA COSTA CO. SITE LIST
LOMA VISTA ELEMENTARY CLASSROOM ADDITION	2110 SAN JOSE AVENUE	SCH, ENVIROSTOR
T-MOBILE WEST CORP/BA01704A	2110 SAN JOSE AVE	CONTRA COSTA CO. SITE LIST
RED ROBIN #590 (BRENTWOOD)	2385 SAND CREEK RD	CONTRA COSTA CO. SITE LIST, CERS,
TERMO COMPANY	SAN JOSE AVE	LUST, HIST CORTESE, CERS
EMPIRE ELEMENTARY SCHOOL	EMPIRE AVENUE/AMBER LANE	SCH, ENVIROSTOR
MILES-FENELL PROPERTY	2200 SHADY WILLOW LANE,2301 & 2251 EMPIRE AVENUE	VCP, ENVIROSTOR

We reviewed GeoTracker and EnviroStor for nearby sites that may have the potential to impact the Property:

Shell Yard, located at 3052 Heidorn Ranch Road, adjacent to the northwest, a closed leaking underground storage tank (LUST) case. The 10-acre lot was formerly used as an office and maintenance yard for pipeline operations, with secondary use as a support area for oil and gas production operations. Between 1997 and 2009, OXY identified four areas of petroleum hydrocarbon contamination and excavated 77,800 cubic yards of contaminated soil, except for two small areas near the high pressure gas lines, bio-treated the soil on-site, and backfilled the site to grade. Groundwater monitoring was conducted on the site from 2005 to 2010. Prior to closure, TPH-d was only detected at 320 µg/L since 2006. Given the remedial activities, closure status, and low residual concentrations, this is unlikely to pose an environmental concern for the Property.

Based on the distances to the identified database sites, regional topographic gradient, and the EDR findings, the above-stated database sites would not pose an environmental risk to the Property. Properties that are on the "Orphan Summary" list appear to be located beyond the ASTM recommended radius search criteria.

3.4 REGULATORY AGENCY FILES AND RECORDS

The following agencies were contacted pertaining to possible past development and/or activity at the Property.

TABLE 3.4-1: Regulatory Agency Records

NAME OF AGENCY	RECORDS REVIEWED
City of Brentwood Building and Planning Departments	We contacted the City of Brentwood Building and Planning Department. We were informed no building records exist for the Property. We were informed that the City of Brentwood prepared a Mitigated Negative Declaration (MND) (2006) report for the Property; however, this has since been superseded by an Environmental Impact Report (EIR).
East Contra Costa County Fire Prevention Department	The East Contra Costa County Fire Prevention Department provided files for 2530 Sand Creek Road (listed incorrectly as the Property in their system). They did not have files available pertaining to the Property.
Contra Costa County Department of Environmental Health	We were provided files for OXY USA Brentwood Oil Fields related records. We were provided the following: • Emergency Response Plans • Hazardous Materials Business Plans (1988-1992) • Change of Operatorship from Shell Western E&P to OXY USA (1988) • Inspections (1990) • Approval of proposed soil remediation for Brentwood Oil and Gas Field by RWQCB (1995) • RWQCB review of Cleanup Levels outlined in DTSC's 1995 letter for the Brentwood Oil and Gas Fields (1995) • Memorandum from DTSC in providing consultative services in risk assessment for the Brentwood Oil and Gas Fields Site to support RWQCB pertaining to the potential human health effects of impacted soil at the site

NAME OF AGENCY	RECORDS REVIEWED
	(1995). This memo it would be best to set the target coil cleanup level at the RME 10^{-6} risk level for all carcinogens and a hazard ratio of 1.0. It was also stated that during remediation, RWQCB may determine that it is not technically possible or too costly to achieve those low target soil levels for the carcinogens, in which case Oxy may clean up to a higher concentration level corresponding to an alternative risk level between 10^{-4} and 10^{-6}. • Phase II Site Investigation Final Report for Brentwood Oil and Gas Field (1992) prepared by Oxy USA, Inc. It was determined that several sites have impacted groundwater quality including Ward 3-10 and Ward 32-10 within the Property. RWQCB issued closure for wells in Section 2.0. • Notice of Violation for Oxy USA for an effluent sample containing benzene at 36.8 ppb. The violation does not specifically identify the Property as the discharge location. • We reviewed monitoring well destruction permits issued in 2000 for 30 monitoring wells including MW-22, MW-29, MW-54, MW-55, MW-75, MW-76, MW-96, MW-15, MW-16, MW-56, MW-57, MW-77, MW-78, MW-79, MW-53, MW-65, MW-66, MW-67, MW-68, MW-85, MW-56, MW-87, MW-100, MW-101, MW-46, MW-62, MW-63, MW-64, MW-88, MW-89.
Contra Costa County Assessor's Office	We reviewed the online database and confirm the Property is associated with APN 019-082-007. The Property is incorrectly listed as 2530 Sand Creek Road in the GIS database.
Central Valley California State Water Resources Control Board	The Property was not listed on GeoTracker, the RWQCB online database; however, the Central Valley RWQCB provided oversight on the former tank farm and oil gas wells. We were provided closure documents by West Coast Home Builders, Inc. pertaining to the former oil wells. We reached out to the Central Valley RWQCB division, however, in response to the COVID-19 Shelter-in-Place Order, non-essential file reviews are not being performed. We did not receive an official response by the completion of this report.
Department of Toxic Substances Control	The Property is not listed on the Department of Toxic Substances Controls' online database, EnviroStor.

3.5 INDOOR AIR QUALITY

An evaluation of indoor air quality, mold, or radon was not included as part of the contracted scope of services. The California Department of Public Health has conducted studies of radon risks throughout the state, sorted by zip code. Results of the studies indicate that 11 tests were conducted within the Property zip code, with no tests exceeding the current EPA action level of 4 picocuries per liter {pCi/L}[1]).

[1] California Department of Public Health – Radon Program– (https://www.cdph.ca.gov/Programs/CEH/DRSEM/CDPH%20Document%20Library/EMB/Radon/Radon%20Test%20Results.pdf).

In accordance with ASTM E2600-15 (Tier 1) (*Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*); There are potential petroleum hydrocarbon sources for vapor intrusion within 1/10 mile of the Property or volatile organic compound (VOCs) sources within 1/3 mile of the Property. Seven oil wells, an above ground storage tank facility, and crude oil underground pipeline previously operated on the Property (Figure 2). The former oil field operations could pose a potential vapor intrusion consideration.

4.0 SITE RECONNAISSANCE

4.1 METHODOLOGY

ENGEO conducted a reconnaissance of the Property on March 25, 2020. The reconnaissance was performed by Brooke Spruit, Project Engineer of ENGEO. The Property was viewed for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The Property was also checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks. Photographs taken during the site reconnaissance are presented in Figure 4.

4.2 SITE OBSERVATIONS

The following table summarizes our observations during the reconnaissance:

TABLE 4.2-1: Site Observations

FEATURE TYPE	OBSERVATIONS
Structures	No structures were observed during the site reconnaissance.
Hazardous Substances and Petroleum Products in Connection with Identified Uses	We observed signage for a PG&E underground gas pipeline within the southwestern portion of the Property traversing from south to northeast.
Storage Tanks (underground and above-ground)	No above-ground storage tanks or evidence of existing underground storage tanks was observed during the site reconnaissance.
Odors	No odors indicative of hazardous materials or petroleum material impacts were noted at the time of the reconnaissance.
Pools of Potentially Hazardous Liquid	No pools of potentially hazardous liquid were observed within the Property at the time of our reconnaissance.
Drums	No drums were observed on the Property at the time of the reconnaissance.
Polychlorinated Biphenyls (PCBs)	No PCB-containing materials, including transformers, were observed within the Property during our site reconnaissance.
Hazardous Substances and Petroleum Product Containers	No hazardous substance or petroleum product containers were observed on the Property at the time of our reconnaissance.
Pits, Ponds, and Lagoons	No pits, ponds or lagoons were observed within the Property at the time of our reconnaissance.
Stained Soil/Pavement	No stained soil or pavement was observed within the Property at the time of our reconnaissance.
Stressed Vegetation	No signs of stressed vegetation were observed on the Property at the time of our reconnaissance.

FEATURE TYPE	OBSERVATIONS
Solid Waste/Debris	We observed small items stored within the central portion of the Property (Figure 4).
Stockpiles/Fill Material	Minor stockpiles were observed from prior grading activities. We understand approximately 25,000 cubic yards of soil was imported to the site as excess dirt from a nearby residential subdivision the owner is developing (See Section 2.0 and 5.0). A limited soil sampling program was conducted to determine if soils had been impacted by past agricultural practices from the import soil site origin. The program included the recovery of two near surface soil samples analyzed for organochlorine pesticides. No compounds were reported above laboratory detection limits.
Wastewater	No wastewater conveyance systems were observed at the Property during the reconnaissance. We observed signage for an underground water utility line within the central portion of the Property.
Wells	No wells were found within the Property during our site reconnaissance. There are 7 abandoned/plugged oil wells (Figure 2). No visual evidence of the oil wells was noted. We are aware 30monitoring wells formally operated on the Property, which were abandoned under permit.
Septic Systems	No septic systems were found within the Property during our site reconnaissance.

4.3 ASBESTOS-CONTAINING MATERIALS AND LEAD-BASED PAINT

No structures are currently located on the Property.

5.0 INTERVIEWS

Mr. Dick Sestero completed an environmental site questionnaire pertaining to user-related applicable environmental information regarding the Property. In the questionnaire, Mr. Sestero did identify potentially environmentally related issues with the Property. Approximately 25,000 cubic yards of undocumented “clean” soil was imported to the site as excess dirt from a nearby residential subdivision the owner is developing (see Modified Phase I ESA performed by ENGEO in 1992, summarized in Section 2.0). Mr. Sestero indicated there were several oil, wells, oil pipelines, and a small tank farm on the property, which were, operated by Shell Oil and later, Occidental Petroleum. He also mentioned the Property was previously used for grazing and row crops. The tanks and pipelines were removed and the wells were abandoned in the late 1990s. Groundwater was monitored and cleared and impacted oily dirt was remediated under oversight of RWQCB. We understand soil excavated from impacted oil well locations was bioremediated onsite at one location and following successful remediation, this material was used to backfill well excavations. A no further action letter on March 7, 2000 and March 29, 2001. The questionnaire is presented in its entirety in Appendix G.

6.0 FINDINGS AND CONCLUSIONS

This assessment included a review of local, state, tribal, and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources. A reconnaissance of the Property was conducted to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially

hazardous materials and interviews with persons knowledgeable about current and past site use.

The site reconnaissance and records review did find documentation of past soil or groundwater impairments, which were subsequently mitigated and provided closure by RWQCB in 1996. A review of regulatory databases maintained by county, state, tribal, and federal agencies found documentation of hazardous materials discharge on the Property; however these previous impacts were mitigated under the oversight of the RWQCB and provided closure. No contaminated facilities were identified within the appropriate American Society for Testing and Materials (ASTM) search distances that would reasonably be expected to impact the Property.

Based on the findings of this assessment, one Recognized Environmental Conditions (RECs), one historical RECs, and no controlled RECs were identified for the Property.

The following historical REC was identified:

Seven oil production wells operated on the Property from 1962 to 1996 (Figure 2). These were decommissioned and abandoned in accordance with the Department of Oil and Gas (now CalGEM) regulations. Records of abandonment were reviewed on the CalGEM website. The Property also contained an above-ground storage tank complex for the separation of oil, condensate and water which was decommission by 1996. The former Brentwood crude oil pipeline also operated within the Property (Figure 2). Remedial activities for the decommissioning of the well sites and tank farm included soil, excavation, bioremediation, soil sampling/analysis and groundwater monitoring. Confirmation sampling and laboratory testing demonstrated successful remediation to the approved cleanup objectives set forth by the Central Valley RWQCB. Closure letters for the Sullenger Tank Farm, Ward Tank Farm, and wells: 3-10, 34-10, 32-10, and 38-10 were issued in 1996 through 2000 by the Central Valley RWQCB. Confirmation samples obtained from the bioremediated soil stockpile had TPH concentrations up to 1,800 parts per million (ppm) which exceed current TPH residential screening levels. It is likely that TPH concentrations have significantly degraded over time. This can be confirmed with supplemental analysis. We understand this soil at the direction of RWQCB was used as a suitable backfill for oil well remedial excavations.
The following potential environmental REC was identified:

- Possible residual impacts could remain within the vicinity of the former oil wells, the former Brentwood crude oil pipeline, and the former tank farm. These wells were decommissioned and abandoned in accordance with the regulatory requirements of CalGEM.

ENGEO has performed a phase I environmental site assessment in general conformance with the scope and limitations of ASTM E1527-13 and the standards and practices of the All Appropriate Inquiry – Final Rule (40 Code of Federal Regulations Part 312).

ENGEO recommends the following:

<u>Former Oil Well Operations</u>

Seven oils wells were decommissioned and abandoned in accordance with the Department of Oil and Gas (CalGEM) requirements and a former above ground tank/processing area were located within the Property boundaries. The following is recommended to address the past oil production activities:

- Limited phase II environmental site assessment in the area of the former tank farm and oil wells.
- A topographic survey of Well 36-10.
- Any remaining abandoned oil pipelines found within the areas of the project site planned for development should be removed during construction.
- Preparation of a Soil Management Plan (SMP) could be prepared for the Property prior to construction activity. This SMP could outline procedures and guidelines for handling unanticipated impacted material associated with former oil site use. If indicators of apparent soil contamination (soil staining, odors, debris fill material, etc.) are encountered at the project site, specifically in the vicinity of abandoned oil wells, or during removal of abandoned oil pipelines, the impacted area should be isolated from surrounding, non-impacted areas. The project environmental professional shall obtain samples of the potentially impacted soil for analysis of the contaminants of concern and comparison with current applicable regulatory residential screening levels.
- Prior to final map approval, the project applicant shall submit to the City of Brentwood Engineering Department, for review and approval, plot plans which show that future structures will not be located within 10 feet of the seven on-site abandoned oil wells.

7.0 LIMITATIONS

7.1 SIGNIFICANT ASSUMPTIONS OR DEVIATIONS FROM ASTM STANDARD PRACTICE

There were no significant deviations from the ASTM standard.

7.2 OPINIONS AND DATA GAPS

It is our opinion that the findings of this study are based on a sufficient level of information obtained during our contracted scope of services to render a conclusion as to whether additional appropriate investigation is required to identify the presence or likely presence of a REC. The following data gap was identified:

- We did not receive a response from the Central Valley RWQCB regarding files pertaining to their oversight of the former oil wells and facilities. We were provided some closure documents from West Coast Home Builders, Inc. which included closure letters for Wells 3-10, 34-10, 32-10, and 38-10, issued in 1996 through 2000 by the Central Valley RWQCB.

The data gaps identified during this process may affect the conclusions as to the presence or lack of presence of RECs at the Property.

7.3 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

The professional staff at ENGEO strives to perform its services in a proper and professional manner with reasonable care and competence but is not infallible. The recommendations and conclusions presented in this report were based on the findings of our study, which were developed solely from the contracted services. The findings of the report are based in part on

contracted database research, out-of-house reports, and personal communications. The opinions formed by ENGEO are based on the assumed accuracy of the relied upon data in conjunction with our relevant professional experience related to such data interpretation. ENGEO assumes no liability for the validity of the materials relied upon in the preparation of this report.

This document must not be subject to unauthorized reuse; that is, reuse without written authorization of ENGEO. Such authorization is essential because it requires ENGEO to evaluate the document's applicability given new circumstances, not the least of which is passage of time. The findings from a phase I environmental site assessment are valid for one year after completion of the report. Updates of portions of the assessment may be necessary after a period of 180 days after completion.

This phase I environmental site assessment is not intended to represent a complete soil, soil gas, or groundwater characterization, nor define the depth or extent of soil, soil gas, or groundwater contamination. It is intended to provide an evaluation of potential environmental concerns associated with the use of the Property. A more extensive assessment that would include a subsurface exploration with laboratory testing of soil, soil gas, and groundwater samples could provide more definitive information concerning site-specific conditions. If additional assessment activities are considered for the Property and if other entities are retained to provide such services, ENGEO cannot be held responsible for any and all claims arising from or resulting from the performance of such services by other persons or entities. ENGEO can also not be held responsible from any and all claims arising or resulting from clarifications, adjustments, modifications, discrepancies or other changes necessary to reflect changed field or other conditions.

7.4 SPECIAL TERMS AND CONDITIONS

ENGEO has prepared this report for the exclusive use of our client, West Coast Home Builders, Inc. It is recognized and agreed that ENGEO has assumed responsibility only for undertaking the study for the Client. The responsibility for disclosures or reports to a third party and for remedial or mitigative action shall be solely that of the Client.

Laboratory testing of soil, soil gas, or groundwater samples was not within the scope of the contracted services. The assessment did not include an asbestos survey, an evaluation of lead-based paint, an inspection of light ballasts for polychlorinated biphenyls (PCBs), or a mold survey. A radon evaluation was not performed.

This report is based upon field and other conditions discovered at the time of preparation of ENGEO's assessment. Visual observations referenced in this report are intended only to represent conditions at the time of the reconnaissance. ENGEO would not be aware of site contamination, such as dumping and/or accidental spillage, that occurred subsequent to the reconnaissance conducted by ENGEO personnel.

SELECTED REFERENCES

Dibblee, Geologic Map of Antioch South and Brentwood Quadangle; Contra Costa County, California; 2006.

Google Maps (http://maps.google.com)

California Department of Water Resources (http://www.water.ca.gov/waterdatalibrary/)

California Department of Conservation (DOGGR) (http://maps.conservation.ca.gov/doms/doms-app.html)

California Department of Public Health – Radon Program– (https://www.cdph.ca.gov/Programs/CEH/DRSEM/CDPH%20Document%20Library/EMB/Radon/Radon%20Test%20Results.pdf).

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Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 36 August 10, 1986.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 3-10; August 18, 1992.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 32-10; May 6, 1993.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 34-10; August 18, 1992.

Department of Conservation Division of Oil and Gas; Report of Well Abandonment – Ward 38-10; February 28, 1994.

Fluor Daniel GTI; Request for Site Closure – Former Ward 3-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 2, 1996.

Fluor Daniel GTI; Request for Site Closure – Former Ward 34-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 2, 1996.

Fluor Daniel GTI; Request for Site Closure – Former Ward Tank Farm Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 2, 1996.

Fluor Daniel GTI; Groundwater Monitoring and Sampling Activities; Ward 3-10 Lease; Former OXY Oil and Gas Field; Brentwood, California; March 18, 1998.

Fluor Daniel GTI; Groundwater Monitoring and Sampling Activities; Ward 34-10 Lease; Former OXY Oil and Gas Field; Brentwood, California; March 18, 1998.

Fluor Daniel GTI; Groundwater Monitoring and Sampling Activities; Ward Tank Farm Lease; Former OXY Oil and Gas Field; Brentwood, California; March 18, 1998.

Groundwater Technology: Remedial Action Plan; Various Oxy/Shell/Apache Lease Sites; Brentwood Oil Field; Brentwood, California; January 19, 1994.

Groundwater Technology; Additional Assessment Report; Remediation Action Plan Modifications; Various Oxy/Shell/Apache E & P Lease Sites; Brentwood Oil Field; Brentwood, California; December 13, 1994.

Groundwater Technology; Human Health Based Soil Remediation Target Concentrations Report; Oxy USA, Inc.; Oil and Gas Field; Brentwood/Antioch, California; February 23, 1995.

ENGEO; Phase I Environmental Site Assessment; Elissondo Property; Brentwood, California; November 8, 1991.

RWQCB; Request for Site Closure – Former Ward 32-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 19, 1996.

RWQCB; Request for Site Closure – Former Ward 35-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 19, 1996.

RWQCB; Request for Site Closure – Former Ward 37-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 19, 1996.

RWQCB; Request for Site Closure – Former Ward 38-10 Site, Brentwood Oil and Gas Field, OXY USA Inc., Contra Costa County; December 19, 1996.

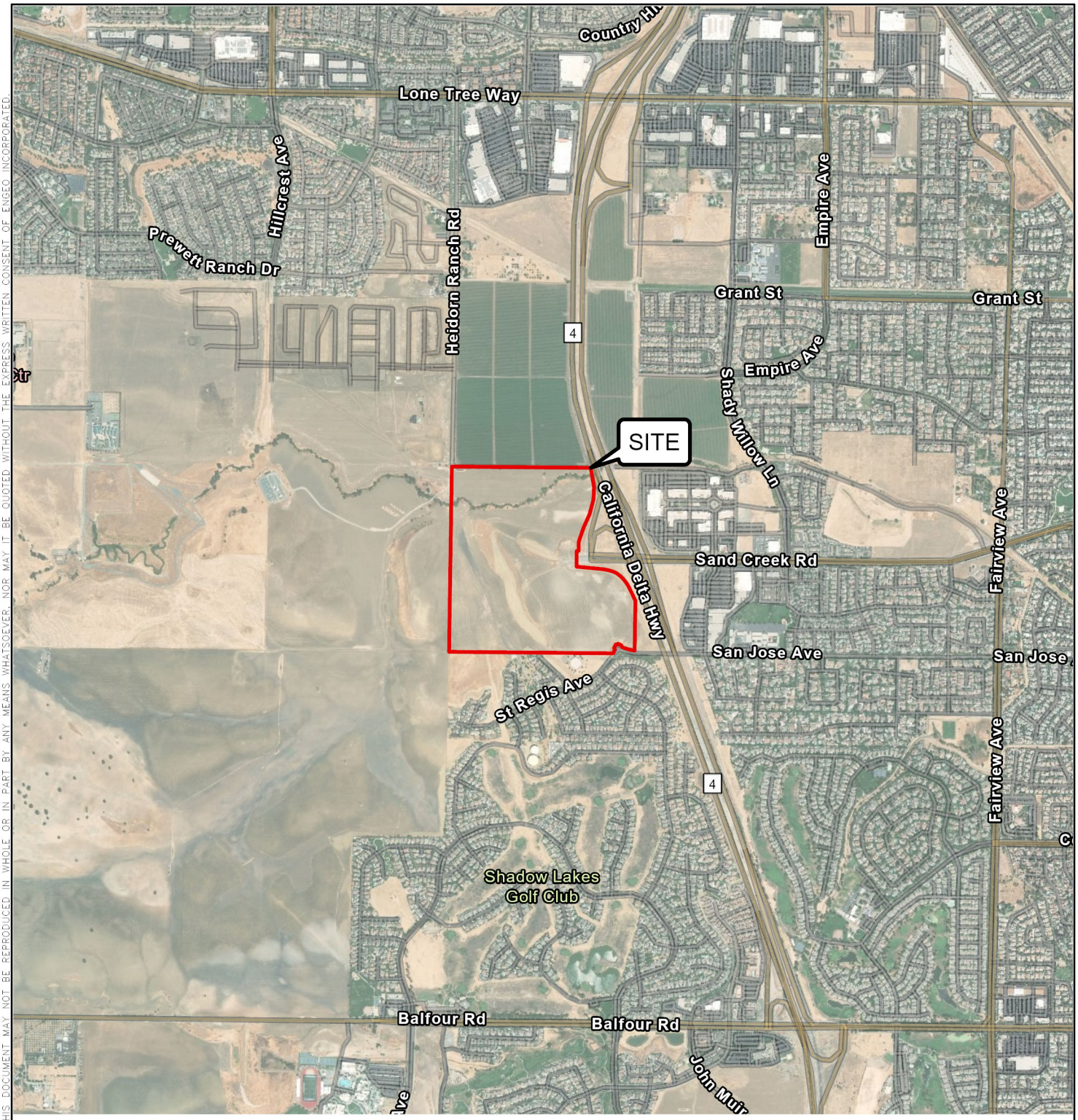
ENGEO; Phase I Environmental Site Assessment; Elissondo Property; Brentwood, California; June 16, 1999.

RWQCB; No Further Action Required; Brentwood Oil and Gas Field, Contra Costa County; July 7, 2000.



FIGURES

FIGURE 1: Vicinity Map
FIGURE 2: Site Plan
FIGURE 3: Assessor's Parcel Map
FIGURE 4: Site Photographs



BASEMAP SOURCE: ESRI MAPPING SERVICE 2017

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VICINITY MAP

BRIDLE GATE

BRENTWOOD, CALIFORNIA

PROJECT NO. :	3359.210.001
SCALE:	AS SHOWN
DRAWN BY: JV	CHECKED BY: BES

FIGURE NO. 1

PATH: G:\DRAFTING\PROJECTS_PROMO\2020\P2020000507\ENVIRONMENTAL\ESA\P2020000507.APRX
LAYOUT: VICINITY USER: JVERGARA

ORIGINAL FIGURE PRINTED IN COLOR

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FEET

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- PG&E UNDERGROUND GAS PIPELINE
- FORMER BRENTWOOD CRUDE OIL PIPELINE
- ⑨ PHOTO LOCATIONS
- 39 ABANDONED WELLHEAD (ISAKSON, 2019)
- 36-10 ABANDONED WELLHEAD (CALGEM, 2020) (APPROXIMATE - LOCATION NOT SURVEYED)

BASE MAP SOURCE: ESRI MAPPING SERVICE 2017 AND DEPT. OF CONSERVATION

ENGEO Expect Excellence

SITE PLAN
BRIDLE GATE
BRENTWOOD, CALIFORNIA

PROJECT NO. : 3359.210.001
SCALE: AS SHOWN
DRAWN BY: JV
CHECKED BY: BES

FIGURE NO. 2

PATH: G:\DRAFTING\PROJECTS_PROMO\2020\P2020000507\ENVIRONMENTAL\ESA\P2020000507.APRX
LAYOUT: ESA FIG 2 USER: JVERGARA

ORIGINAL FIGURE PRINTED IN COLOR



BASEMAP SOURCE: ESRI MAPPING SERVICE

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ASSESSOR'S PARCEL MAP

BRIDLE GATE

BRENTWOOD, CALIFORNIA

PROJECT NO. :	3359.210.001
SCALE:	AS SHOWN
DRAWN BY: JV	CHECKED BY: BES

FIGURE NO. 3

PATH: G:\DRAFTING\PROJECTS_PROMO\2020\P2020000507\ENVIRONMENTAL\ESA\P2020000507.APRX
LAYOUT: PARCEL USER: JVERGARA

ORIGINAL FIGURE PRINTED IN COLOR



PETROLEUM UNDERGROUND LINE ONSITE



UNDERGROUND WATER UTILITY



STORM DRAIN INLET



STORED ITEMS WITHIN CENTRAL PORTION OF SITE



VIEW OF SITE FROM NORTHWEST CORNER



VIEW OF SITE FACING SOUTHEAST

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SITE PHOTOGRAPHS

BRIDLE GATE

BRENTWOOD, CALIFORNIA

PROJECT NUMBER: **3359.210.001**		FIGURE NO. 4A
SCALE: **NO SCALE**		
DRAWN BY: **JV**	CHECKED BY: **BES**	

ORIGINAL FIGURE PRINTED IN COLOR



MINOR STOCKPILED MATERIAL



VIEW OF SITE FACING WEST



SAND CREEK

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SITE PHOTOGRAPHS

BRIDLE GATE

BRENTWOOD, CALIFORNIA

PROJECT NUMBER: **3359.210.001**		FIGURE NO. 4B
SCALE: **NO SCALE**		
DRAWN BY: **JV**	CHECKED BY: **BES**	

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APPENDIX A

ENVIRONMENTAL DATA RESOURCES, INC.

Radius Map Report

Bridlegate
Sand Creek Road and San Jose Ave.
Brentwood, CA 94513

Inquiry Number: 06010925.2r
March 17, 2020

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Map Findings Summary	4
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Physical Setting Source Addendum	A-1
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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

SAND CREEK ROAD AND SAN JOSE AVE.
BRENTWOOD, CA 94513

COORDINATES

Latitude (North):	37.9431970 - 37° 56' 35.50''
Longitude (West):	121.7468410 - 121° 44' 48.62''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	610113.8
UTM Y (Meters):	4200047.5
Elevation:	204 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5640376 BRENTWOOD, CA
Version Date:	2012
West Map:	5640044 ANTIOCH SOUTH, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140606
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
SAND CREEK ROAD AND SAN JOSE AVE.
BRENTWOOD, CA 94513

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	BRIDLE GATE	INTERSECTION OF HWY	NPDES, CIWQS		TP
A2	BRIDLE GATE COMMERCI	SAN CREEK RD	CIWQS		TP
A3	BRIDLE GATE RESIDENT	SAND CREEK RD	CIWQS		TP
4	SAND CREEK STN	HEIDORN RANCH & SAND	CONTRA COSTA CO. SITE LIST	Lower	38, 0.007, NW
5	VICTORIA SECRET STOR	2845 SAND CREEK RD S	CERS HAZ WASTE	Lower	42, 0.008, NNE
6	SHELL YARD	3052 HEIDORN RANCH R	CPS-SLIC, CDL, CERS	Lower	366, 0.069, NW
B7	THE TALBOTS INC. #11	2565 SAND CREEK RD S	CERS HAZ WASTE	Lower	488, 0.092, East
B8	LENSCRAFTERS #5612	2565 SAND CREEK RD S	HAZNET, CONTRA COSTA CO. SITE LIST, HWTS	Lower	488, 0.092, East
B9	LENSCRAFTERS #5612	2565 SAND CREEK RD	CERS HAZ WASTE, CONTRA COSTA CO. SITE LIST	Lower	488, 0.092, East
B10	LENSCRAFTERS #5612	2565 SAND CREEK RD S	RCRA NonGen / NLR	Lower	488, 0.092, East
B11		2565 SAND CREEK RD S	RCRA NonGen / NLR	Lower	488, 0.092, East
B12	ROUND TABLE PIZZA	2540 SAND CREEK RD	CONTRA COSTA CO. SITE LIST	Lower	503, 0.095, East
B13	EXPRESS FASHION OPER	2545 SAND CREEK RD	CERS HAZ WASTE, HAZNET, CONTRA COSTA CO. SITE...	Lower	537, 0.102, East
B14	EXPRESS 2007	2545 SANDCREEK ROAD	RCRA NonGen / NLR	Lower	537, 0.102, East
15	BRENTWOOD SHOPPING C	2200 SAN JOSE AVENUE	CPS-SLIC, CERS	Lower	547, 0.104, ESE
B16	ROSS DRESS FOR LESS	2520 SAND CREEK RD	CERS HAZ WASTE, HAZNET, CONTRA COSTA CO. SITE...	Lower	565, 0.107, East
B17	ROSS DRESS FOR LESS	2520 SAND CREEK RD	RCRA NonGen / NLR	Lower	565, 0.107, East
B18	HOLLISTER CO	2505 SAND CREEK RD	CERS HAZ WASTE, CONTRA COSTA CO. SITE LIST	Lower	651, 0.123, East
B19	BATH & BODY WORKS #2	2505 SAND CREEK RD S	CERS HAZ WASTE, CERS	Lower	651, 0.123, East
B20	BATH & BODY WORKS #2	2505 SAND CREEK RD S	RCRA NonGen / NLR	Lower	651, 0.123, East
B21	HOLLISTER CO	2505 SAND CREEK RD	RCRA NonGen / NLR	Lower	651, 0.123, East
C22	KELLY-MOORE PAINT CO	2480 SAND CREEK RD	RCRA NonGen / NLR	Lower	745, 0.141, East
C23	KELLY-MOORE PAINT CO	2480 SAND CREEK RD	CERS HAZ WASTE, HAZNET, CONTRA COSTA CO. SITE...	Lower	745, 0.141, East
C24	PARTY CITY #444 BREN	2470 SAND CREEK RD	CERS HAZ WASTE, CHMIRS, HAZNET, CONTRA COSTA CO..	Lower	792, 0.150, East
C25	PARTY CITY CORPORATI	2470 SAND CREEK RD	RCRA NonGen / NLR	Lower	792, 0.150, East
C26	REI #126	2475 S SAND CREEK RD	CONTRA COSTA CO. SITE LIST	Lower	796, 0.151, East
C27	HOMEGOODS 0237	2460 SAND CREEK RD	RCRA NonGen / NLR	Lower	840, 0.159, East
C28	HOMEGOODS 0237	2460 SAND CREEK RD	CERS HAZ WASTE, CONTRA COSTA CO. SITE LIST	Lower	840, 0.159, East
C29	ULTA BEAUTY 353	2465 SAND CREEK RD	RCRA NonGen / NLR	Lower	841, 0.159, East
C30	ULTA BEAUTY 353	2465 SAND CREEK RD	CERS HAZ WASTE, HAZNET, CONTRA COSTA CO. SITE...	Lower	841, 0.159, East
C31	MAC 695434	2455 SAND CREEK RD S	HAZNET, NPDES, CONTRA COSTA CO. SITE LIST, CIWQS,...	Lower	888, 0.168, East
C32	MAC 12000153	2455 SAND CREEK RD S	CERS HAZ WASTE	Lower	888, 0.168, East
C33	MAC 695434	2455 SANDCREEK RD SP	RCRA NonGen / NLR	Lower	888, 0.168, East
C34	MAC 12000153	2455 SANDCREEK	RCRA NonGen / NLR	Lower	888, 0.168, East
C35	TJ MAXX 0858	2450 SAND CREEK RD	CERS HAZ WASTE, HAZNET, CONTRA COSTA CO. SITE...	Lower	888, 0.168, East
C36	TJ MAXX 0858	2450 SAND CREEK RD	RCRA NonGen / NLR	Lower	888, 0.168, East
D37	SHELL PURCHASE	SAND CREEK ROAD	HIST UST, EMI, CERS	Lower	912, 0.173, NE
C38	COSMOPROF BEAUTY	2440 SAND CREEK RD S	RCRA NonGen / NLR	Lower	936, 0.177, East
C39	COSMOPROF BEAUTY	2440 SAND CREEK RD E	CONTRA COSTA CO. SITE LIST	Lower	936, 0.177, East

MAPPED SITES SUMMARY

Target Property Address:
SAND CREEK ROAD AND SAN JOSE AVE.
BRENTWOOD, CA 94513

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
C40	COSMOPROF BEAUTY	2440 SAND CREEK RD S	CERS HAZ WASTE	Lower	936, 0.177, East
41	BJ'S RESTAURANT & BR	2365 SAND CREEK RD	NPDES, CONTRA COSTA CO. SITE LIST	Lower	1078, 0.204, East
E42	RALEY'S #336	2400 SANDCREEK RD	RCRA NonGen / NLR, FINDS	Lower	1128, 0.214, East
E43	RALEYS #336	2400 SAND CREEK RD	CONTRA COSTA CO. SITE LIST	Lower	1128, 0.214, East
D44	EQUILON PIPLINE CO L	3052 SAND CREEK RD	CONTRA COSTA CO. SITE LIST	Lower	1129, 0.214, NE
F45	LOMA VISTA ELEMENTAR	2110 SAN JOSE AVENUE	ENVIROSTOR, SCH	Lower	1201, 0.227, ESE
F46	T-MOBILE WEST CORP/B	2110 SAN JOSE AVE	CONTRA COSTA CO. SITE LIST	Lower	1201, 0.227, ESE
E47	RED ROBIN #590 (BREN	2385 SAND CREEK RD	CONTRA COSTA CO. SITE LIST, CERS	Lower	1243, 0.235, East
48	TERMO COMPANY	SAN JOSE AVE	LUST, HIST CORTESE, CERS	Lower	1882, 0.356, ESE
49	EMPIRE ELEMENTARY SC	EMPIRE AVENUE/AMBER	ENVIROSTOR, SCH	Lower	4212, 0.798, NE
50	MILES-FENELL PROPERT	2200 SHADY WILLOW LA	ENVIROSTOR, VCP	Lower	4462, 0.845, NNE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 9 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
BRIDLE GATE INTERSECTION OF HWY BRENTWOOD, CA 94513	NPDES CIWQS	N/A
BRIDLE GATE COMMERCI SAN CREEK RD BRENTWOOD, CA 94513	CIWQS	N/A
BRIDLE GATE RESIDENT SAND CREEK RD BRENTWOOD, CA 94513	CIWQS	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

EXECUTIVE SUMMARY

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
UST ---------- Active UST Facilities
AST ---------- Aboveground Petroleum Storage Tank Facilities
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP ---------- Voluntary Cleanup Priority Listing
VCP ---------- Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS ---------- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

EXECUTIVE SUMMARY

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT	Waste Management Unit Database
SWRCY	Recycler Database
HAULERS	Registered Waste Tire Haulers Listing
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands
ODI	Open Dump Inventory
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS	Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL	Delisted National Clandestine Laboratory Register
HIST Cal-Sites	Historical Calsites Database
CDL	Clandestine Drug Labs
Toxic Pits	Toxic Pits Cleanup Act Sites
US CDL	National Clandestine Laboratory Register
PFAS	PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

SWEEPS UST	SWEEPS UST Listing
CERS TANKS	California Environmental Reporting System (CERS) Tanks
CA FID UST	Facility Inventory Database

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties

PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
DOCKET HWC	Hazardous Waste Compliance Docket Listing
UXO	Unexploded Ordnance Sites
ECHO	Enforcement & Compliance History Information
FUELS PROGRAM	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
DRYCLEANERS	Cleaner Facilities
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
HAZNET	Facility and Manifest Data
ICE	ICE
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
MINES	Mines Site Location Listing
MWMP	Medical Waste Management Program Listing
PEST LIC	Pesticide Regulation Licenses Listing
PROC	Certified Processors Database
Notify 65	Proposition 65 Records
UIC	UIC Listing
UIC GEO	UIC GEO (GEOTRACKER)
WASTEWATER PITS	Oil Wastewater Pits Listing
WDS	Waste Discharge System
WIP	Well Investigation Program Case List
MILITARY PRIV SITES	MILITARY PRIV SITES (GEOTRACKER)
PROJECT	PROJECT (GEOTRACKER)
WDR	Waste Discharge Requirements Listing
CERS	CERS
NON-CASE INFO	NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS	OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS	PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT	SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)
MINES MRDS	Mineral Resources Data System

HWTS Hazardous Waste Tracking System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP EDR Proprietary Manufactured Gas Plants
EDR Hist Auto EDR Exclusive Historical Auto Stations
EDR Hist Cleaner EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF Recovered Government Archive Solid Waste Facilities List
RGA LUST Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 10/28/2019 has revealed that there are 3 ENVIROSTOR sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LOMA VISTA ELEMENTAR	***2110 SAN JOSE AVENUE***	***ESE 1/8 - 1/4 (0.227 mi.)***	***F45***	***167***

Facility Id: 7820007
Status: No Action Required

EMPIRE ELEMENTARY SC	***EMPIRE AVENUE/AMBER***	***NE 1/2 - 1 (0.798 mi.)***	***49***	***174***
Facility Id: 1010005 Status: Certified				
MILES-FENELL PROPERT	***2200 SHADY WILLOW LA***	***NNE 1/2 - 1 (0.845 mi.)***	***50***	***176***
Facility Id: 60001996 Status: No Further Action				

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TERMO COMPANY	***SAN JOSE AVE***	***ESE 1/4 - 1/2 (0.356 mi.)***	***48***	***173***
Database: LUST REG 5, Date of Government Version: 07/01/2008 Status: Case Closed				

CPS-SLIC: Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the CPS-SLIC list, as provided by EDR, has revealed that there are 2 CPS-SLIC sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELL YARD	***3052 HEIDORN RANCH R***	***NW 0 - 1/8 (0.069 mi.)***	***6***	***16***
Database: CPS-SLIC, Date of Government Version: 12/09/2019 Database: SLIC REG 5, Date of Government Version: 04/01/2005 Facility Status: Completed - Case Closed Global Id: SL0601369421				
BRENTWOOD SHOPPING C	***2200 SAN JOSE AVENUE***	***ESE 0 - 1/8 (0.104 mi.)***	***15***	***39***
Database: CPS-SLIC, Date of Government Version: 12/09/2019 Database: SLIC REG 5, Date of Government Version: 04/01/2005 Facility Status: Completed - Case Closed Global Id: SL0601334843				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

SCH: This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category. depending on the level of threat to public health and safety or the. environment they pose.

A review of the SCH list, as provided by EDR, and dated 10/28/2019 has revealed that there is 1 SCH site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LOMA VISTA ELEMENTAR	***2110 SAN JOSE AVENUE***	***ESE 1/8 - 1/4 (0.227 mi.)***	***F45***	***167***
Facility Id: 7820007				
Status: No Action Required				

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 10/21/2019 has revealed that there are 14 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
VICTORIA SECRET STOR	2845 SAND CREEK RD S	NNE 0 - 1/8 (0.008 mi.)	5	14
THE TALBOTS INC. #11	2565 SAND CREEK RD S	E 0 - 1/8 (0.092 mi.)	B7	17
LENSCRAFTERS #5612	***2565 SAND CREEK RD***	***E 0 - 1/8 (0.092 mi.)***	***B9***	***23***
EXPRESS FASHION OPER	***2545 SAND CREEK RD***	***E 0 - 1/8 (0.102 mi.)***	***B13***	***34***
ROSS DRESS FOR LESS	***2520 SAND CREEK RD***	***E 0 - 1/8 (0.107 mi.)***	***B16***	***40***
HOLLISTER CO	***2505 SAND CREEK RD***	***E 0 - 1/8 (0.123 mi.)***	***B18***	***59***
BATH & BODY WORKS #2	***2505 SAND CREEK RD S***	***E 0 - 1/8 (0.123 mi.)***	***B19***	***63***
KELLY-MOORE PAINT CO	***2480 SAND CREEK RD***	***E 1/8 - 1/4 (0.141 mi.)***	***C23***	***71***
PARTY CITY #444 BREN	***2470 SAND CREEK RD***	***E 1/8 - 1/4 (0.150 mi.)***	***C24***	***79***
HOMEGOODS 0237	***2460 SAND CREEK RD***	***E 1/8 - 1/4 (0.159 mi.)***	***C28***	***90***
ULTA BEAUTY 353	***2465 SAND CREEK RD***	***E 1/8 - 1/4 (0.159 mi.)***	***C30***	***95***
MAC 12000153	2455 SAND CREEK RD S	E 1/8 - 1/4 (0.168 mi.)	C32	130
TJ MAXX 0858	***2450 SAND CREEK RD***	***E 1/8 - 1/4 (0.168 mi.)***	***C35***	***136***
COSMOPROF BEAUTY	2440 SAND CREEK RD S	E 1/8 - 1/4 (0.177 mi.)	C40	161

Local Lists of Registered Storage Tanks

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELL PURCHASE	***SAND CREEK ROAD***	***NE 1/8 - 1/4 (0.173 mi.)***	***D37***	***156***
Facility Id: 00000024874				

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/16/2019 has revealed that there are 15 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LENSCRAFTERS #5612 EPA ID:: CAL000338146	2565 SAND CREEK RD S	E 0 - 1/8 (0.092 mi.)	B10	31
Not reported EPA ID:: CAL000402609	2565 SAND CREEK RD S	E 0 - 1/8 (0.092 mi.)	B11	33
EXPRESS 2007 EPA ID:: CAL000426403	2545 SANDCREEK ROAD	E 0 - 1/8 (0.102 mi.)	B14	38
ROSS DRESS FOR LESS EPA ID:: CAL000397536	2520 SAND CREEK RD	E 0 - 1/8 (0.107 mi.)	B17	57
BATH & BODY WORKS #2 EPA ID:: CAL000427473	2505 SAND CREEK RD S	E 0 - 1/8 (0.123 mi.)	B20	68
HOLLISTER CO EPA ID:: CAL000333470	2505 SAND CREEK RD	E 0 - 1/8 (0.123 mi.)	B21	69
KELLY-MOORE PAINT CO EPA ID:: CAL000332511	2480 SAND CREEK RD	E 1/8 - 1/4 (0.141 mi.)	C22	70
PARTY CITY CORPORATI EPA ID:: CAL000417986	2470 SAND CREEK RD	E 1/8 - 1/4 (0.150 mi.)	C25	87
HOMEGOODS 0237 EPA ID:: CAL000401789	2460 SAND CREEK RD	E 1/8 - 1/4 (0.159 mi.)	C27	89
ULTA BEAUTY 353 EPA ID:: CAL000388869	2465 SAND CREEK RD	E 1/8 - 1/4 (0.159 mi.)	C29	94
MAC 695434 EPA ID:: CAR000264093	2455 SANDCREEK RD SP	E 1/8 - 1/4 (0.168 mi.)	C33	133
MAC 12000153 EPA ID:: CAL000423933	2455 SANDCREEK	E 1/8 - 1/4 (0.168 mi.)	C34	135
TJ MAXX 0858 EPA ID:: CAL000383025	2450 SAND CREEK RD	E 1/8 - 1/4 (0.168 mi.)	C36	155
COSMOPROF BEAUTY EPA ID:: CAL000429726	2440 SAND CREEK RD S	E 1/8 - 1/4 (0.177 mi.)	C38	159
RALEY'S #336 EPA ID:: CAR000126821	***2400 SANDCREEK RD***	***E 1/8 - 1/4 (0.214 mi.)***	***E42***	***165***

EXECUTIVE SUMMARY

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there is 1 HIST CORTESE site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TERMO COMPANY Reg Id: 070007	***SAN JOSE AVE***	***ESE 1/4 - 1/2 (0.356 mi.)***	***48***	***173***

CONTRA COSTA CO. SITE LIST: Lists includes sites from the Underground Tank Program, Hazardous Waste Generator Program & Business Plan 12185 Program

A review of the CONTRA COSTA CO. SITE LIST list, as provided by EDR, and dated 12/02/2019 has revealed that there are 20 CONTRA COSTA CO. SITE LIST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SAND CREEK STN Facility Id: FA0030922	HEIDORN RANCH & SAND	NW 0 - 1/8 (0.007 mi.)	4	14
LENSCRAFTERS #5612 Facility Id: FA0036231	***2565 SAND CREEK RD S***	***E 0 - 1/8 (0.092 mi.)***	***B8***	***21***
LENSCRAFTERS #5612 Facility Id: FA0030589	***2565 SAND CREEK RD***	***E 0 - 1/8 (0.092 mi.)***	***B9***	***23***
ROUND TABLE PIZZA Facility Id: FA0042931	2540 SAND CREEK RD	E 0 - 1/8 (0.095 mi.)	B12	34
EXPRESS FASHION OPER Facility Id: FA0036913	***2545 SAND CREEK RD***	***E 0 - 1/8 (0.102 mi.)***	***B13***	***34***
ROSS DRESS FOR LESS Facility Id: FA0035793	***2520 SAND CREEK RD***	***E 0 - 1/8 (0.107 mi.)***	***B16***	***40***
HOLLISTER CO Facility Id: FA0033602 Facility Id: FA0037132 Facility Id: FA0040331	***2505 SAND CREEK RD***	***E 0 - 1/8 (0.123 mi.)***	***B18***	***59***
KELLY-MOORE PAINT CO Facility Id: FA0031456	***2480 SAND CREEK RD***	***E 1/8 - 1/4 (0.141 mi.)***	***C23***	***71***
PARTY CITY #444 BREN Facility Id: FA0038066	***2470 SAND CREEK RD***	***E 1/8 - 1/4 (0.150 mi.)***	***C24***	***79***
REI #126 Facility Id: FA0034018	2475 S SAND CREEK RD	E 1/8 - 1/4 (0.151 mi.)	C26	89
HOMEGOODS 0237 Facility Id: FA0035185	***2460 SAND CREEK RD***	***E 1/8 - 1/4 (0.159 mi.)***	***C28***	***90***
ULTA BEAUTY 353 Facility Id: FA0037657	***2465 SAND CREEK RD***	***E 1/8 - 1/4 (0.159 mi.)***	***C30***	***95***
MAC 695434 Facility Id: FA0038198	***2455 SAND CREEK RD S***	***E 1/8 - 1/4 (0.168 mi.)***	***C31***	***124***
TJ MAXX 0858	***2450 SAND CREEK RD***	***E 1/8 - 1/4 (0.168 mi.)***	***C35***	***136***

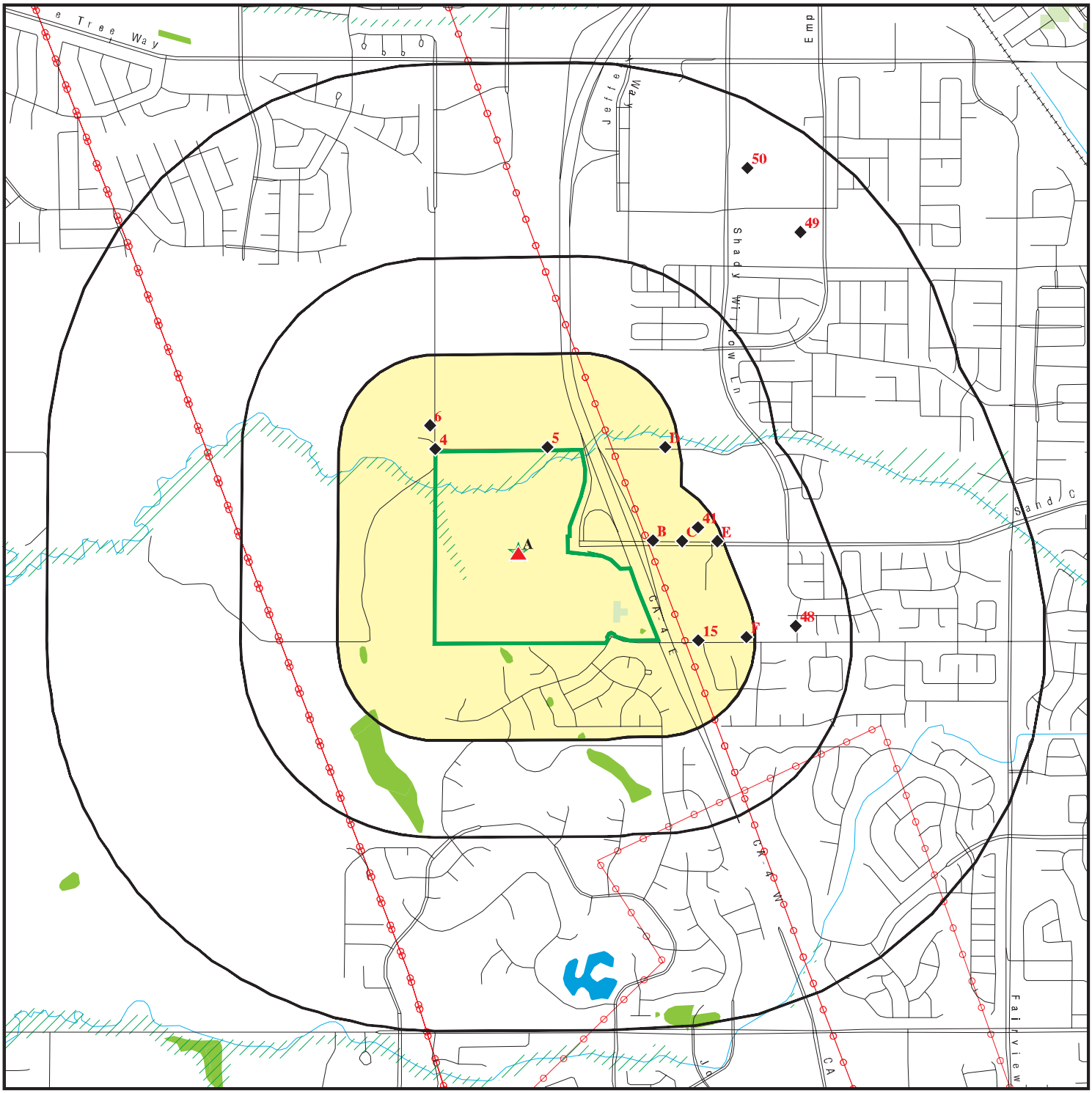
Facility Id: FA0035255				
COSMOPROF BEAUTY Facility Id: FA0039778	2440 SAND CREEK RD E	E 1/8 - 1/4 (0.177 mi.)	C39	160
BJ'S RESTAURANT & BR Facility Id: FA0042894	***2365 SAND CREEK RD***	***E 1/8 - 1/4 (0.204 mi.)***	***41***	***164***
RALEYS #336 Facility Id: FA0030141	2400 SAND CREEK RD	E 1/8 - 1/4 (0.214 mi.)	E43	167
EQUILON PIPLINE CO L Facility Id: FA0030744	3052 SAND CREEK RD	NE 1/8 - 1/4 (0.214 mi.)	D44	167
T-MOBILE WEST CORP/B Facility Id: FA0030789	2110 SAN JOSE AVE	ESE 1/8 - 1/4 (0.227 mi.)	F46	169
RED ROBIN #590 (BREN Facility Id: FA0042183	***2385 SAND CREEK RD***	***E 1/8 - 1/4 (0.235 mi.)***	***E47***	***170***

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

Site Name	Database(s)
SHEA HOMES PROPERTY (FORMERLY GERM	CPS-SLIC
THE TERMO COMPANY	CPS-SLIC

OVERVIEW MAP - 06010925.2R



0 1/4 1/2 1 Miles

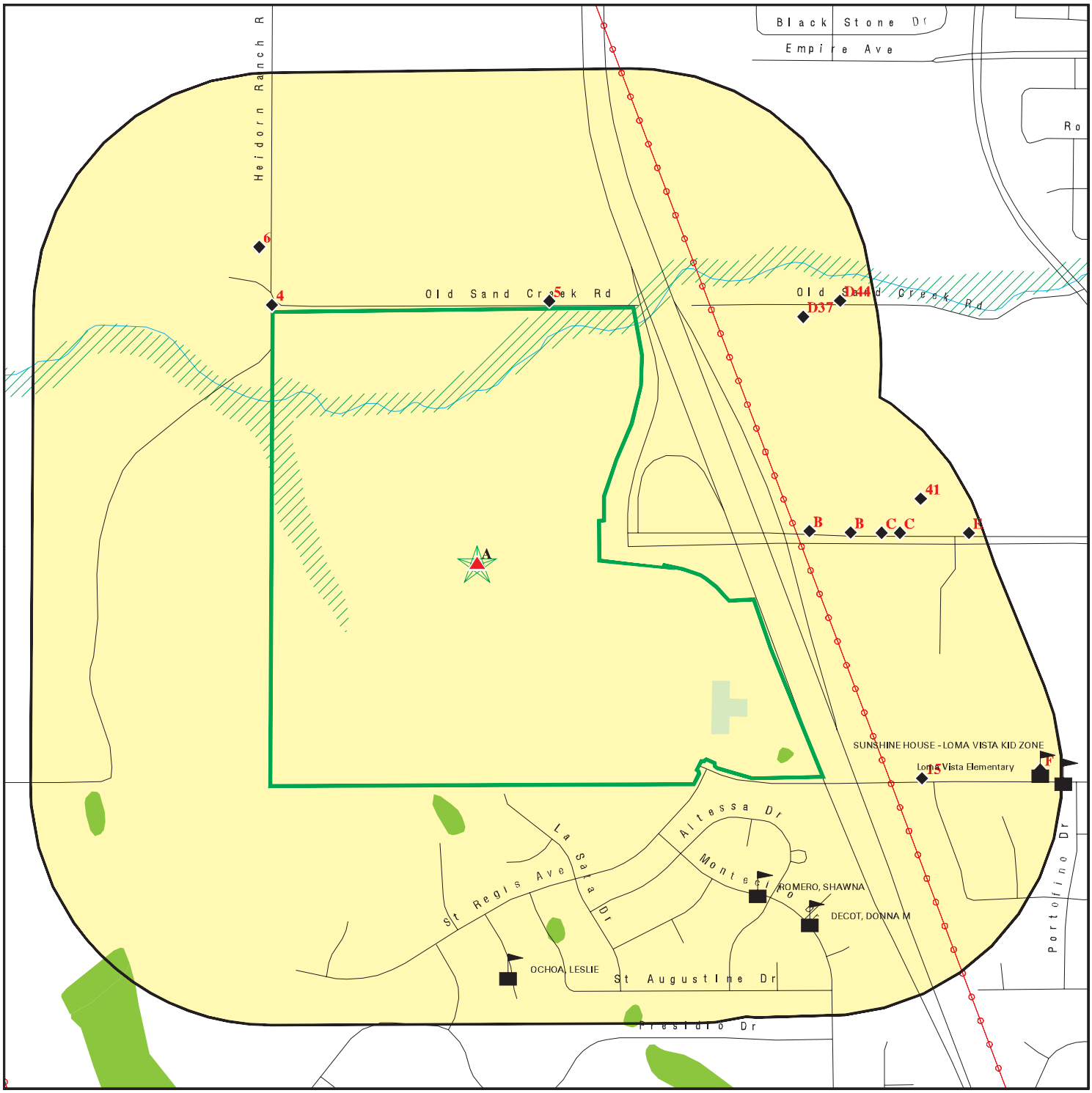
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Bridlegate	CLIENT:	Engeo Inc.
ADDRESS:	Sand Creek Road and San Jose Ave. Brentwood CA 94513	CONTACT:	Brooke Spruit
LAT/LONG:	37.943197 / 121.746841	INQUIRY #:	06010925.2r
		DATE:	March 17, 2020 12:06 pm

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DETAIL MAP - 06010925.2R



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/8 1/4 1/2 Miles

Indian Reservations BIA

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Bridlegate	CLIENT: Engeo Inc.
ADDRESS: Sand Creek Road and San Jose Ave. Brentwood CA 94513	CONTACT: Brooke Spruit
LAT/LONG: 37.943197 / 121.746841	INQUIRY #: 06010925.2r
	DATE: March 17, 2020 12:08 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	1	0	2	NR	3
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	1	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		2	0	0	NR	NR	2
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	1	NR	NR	NR	1
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		7	7	NR	NR	NR	14
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	1	NR	NR	NR	1
CERS TANKS	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		6	9	NR	NR	NR	15
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	1	NR	NR	1
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001	1	0	NR	NR	NR	NR	1
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
CONTRA COSTA CO. SITE LIST	0.250		7	13	NR	NR	NR	20
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001	3	0	NR	NR	NR	NR	3
CERS	0.001		0	NR	NR	NR	NR	0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		4	22	32	2	2	0	62

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **BRIDLE GATE** **NPDES** **S112142034**
Target **INTERSECTION OF HWY 4 BYPASS AND SAND CREEK RD** **CIWQS** **N/A**
Property **BRENTWOOD, CA 94513**

Site 1 of 3 in cluster A

Actual:
204 ft.

NPDES:

Name:	BRIDLE GATE
Address:	INTERSECTION OF HWY 4 BYPASS AND SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	5S07C364121
Regulatory Measure Type:	Construction
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Terminated
Status Date:	05/20/2015
Operator Name:	West Coast Home Builders Inc
Operator Address:	4021 Port Chicago Hwy
Operator City:	Concord
Operator State:	California
Operator Zip:	94520

NPDES as of 03/2018:

NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	5S
Regulatory Measure ID:	428828
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	5S07C364121
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	05/15/2015
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	07/16/2012
Processed Date:	07/19/2012
Status:	Terminated

BRIDLE GATE (Continued) **S112142034**

Status Date:	05/20/2015
Place Size:	20
Place Size Unit:	Acres
Contact:	Jason Tamayo
Contact Title:	Superintendent
Contact Phone:	925-383-7989
Contact Phone Ext:	Not reported
Contact Email:	SWPPPManager@discoverybuilders.com
Operator Name:	West Coast Home Builders Inc
Operator Address:	4021 Port Chicago Hwy
Operator City:	Concord
Operator State:	California
Operator Zip:	94520
Operator Contact:	Jay TorresMuga
Operator Contact Title:	Vice President
Operator Contact Phone:	925-671-7711
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	JTMugaSWPPP@discoverybuilders.com
Operator Type:	Private Business
Developer:	Bay Cities Paving and Grading Inc
Developer Address:	5029 Forni Drive
Developer City:	Concord
Developer State:	California
Developer Zip:	94520
Developer Contact:	Eric Barker
Developer Contact Title:	General Manager
Constype Linear Utility Ind:	N
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	grading and hauling dirt
Constype Other Ind:	Y
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	N
Receiving Water Name:	Not reported
Certifier:	Jay TorresMuga
Certifier Title:	Vice President
Certification Date:	16-JUL-12
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	CAS000002
Status:	Terminated
Agency Number:	0

BRIDLE GATE (Continued) **S112142034**

Region:	5S
Regulatory Measure ID:	428828
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	5S07C364121
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	07/19/2012
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	05/15/2015
Discharge Name:	West Coast Home Builders Inc
Discharge Address:	4021 Port Chicago Hwy
Discharge City:	Concord
Discharge State:	California
Discharge Zip:	94520
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported

BRIDLE GATE (Continued) **S112142034**

Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

CIWQS:

Name:	BRIDLE GATE
Address:	INTERSECTION OF HWY 4 BYPASS AND SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Agency:	West Coast Home Builders Inc
Agency Address:	4021 Port Chicago Hwy, Concord, CA 94520
Place/Project Type:	Construction - Other: grading and hauling dirt
SIC/NAICS:	Not reported
Region:	5S
Program:	CONSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water construction
Order Number:	2009-0009-DWQ
WDID:	5S07C364121
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	07/19/2012
Termination Date:	05/15/2015
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	37.943611
Longitude:	-121.748055

A2 **BRIDLE GATE COMMERCIAL PROJECT** **CIWQS** **S121624861**
Target **SAN CREEK RD** **N/A**
Property **BRENTWOOD, CA 94513**

Site 2 of 3 in cluster A

Actual:
204 ft.

CIWQS:

Name:	BRIDLE GATE COMMERCIAL PROJECT
Address:	SAN CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Agency:	West Coast Home Builders
Agency Address:	4021 Port Chicago Hwy, Concord, CA 94520

BRIDLE GATE COMMERCIAL PROJECT (Continued) **S121624861**

Place/Project Type:	Construction - Commercial
SIC/NAICS:	Not reported
Region:	5S
Program:	CONSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water construction
Order Number:	99-08DW
WDID:	5S07C345150
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	01/03/2007
Termination Date:	02/19/2009
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	Not reported
Longitude:	Not reported

A3 **BRIDLE GATE RESIDENTIAL PROJECT** **CIWQS** **S121624862**
Target **SAND CREEK RD** **N/A**
Property **BRENTWOOD, CA 94513**

Site 3 of 3 in cluster A

Actual: **204 ft.**

CIWQS:

Name:	BRIDLE GATE RESIDENTIAL PROJECT
Address:	SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Agency:	West Coast Home Builders
Agency Address:	4021 Port Chicago Hwy, Concord, CA 94520
Place/Project Type:	Construction - Residential
SIC/NAICS:	Not reported
Region:	5S
Program:	CONSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water construction
Order Number:	99-08DW
WDID:	5S07C345375
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	01/19/2007
Termination Date:	02/19/2009
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	Not reported
Longitude:	Not reported

4
NW
< 1/8
0.007 mi.
38 ft.

SAND CREEK STN
HEIDORN RANCH & SAND CREE
BRENTWOOD, CA 94513

CONTRA COSTA CO. SITE LIST **S105850335**
N/A

Relative:
Lower

Actual:
152 ft.

CONTRA COSTA CO. SITE LIST:

Name:	SAND CREEK STN
Address:	HEIDORN RANCH & SAND CREE
City:	BRENTWOOD
Facility ID:	FA0030922
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP GENERAL
Region:	CONTRA COSTA
Cupa Number:	707518

Name:	SAND CREEK STN
Address:	HEIDORN RANCH & SAND CREE
City:	BRENTWOOD
Facility ID:	FA0030922
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG GENERAL
Region:	CONTRA COSTA
Cupa Number:	707518

5
NNE
< 1/8
0.008 mi.
42 ft.

VICTORIA SECRET STORE #1411
2845 SAND CREEK RD SPC E-4
BRENTWOOD, CA 94513

CERS HAZ WASTE **S121781535**
N/A

Relative:
Lower

Actual:
140 ft.

CERS HAZ WASTE:

Name:	VICTORIA SECRET STORE #1411
Address:	2845 SAND CREEK RD SPC E-4
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	423488
CERS ID:	10737736
CERS Description:	Hazardous Waste Generator

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	09-29-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Affiliation:

Affiliation Type Desc:	Document Preparer
Entity Name:	ASHLEY CAMPBELL
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported

VICTORIA SECRET STORE #1411 (Continued) **S121781535**

Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200
Affiliation Type Desc:	Identification Signer
Entity Name:	Ashley Campbell
Entity Title:	ENVIRONMENTAL COMPLIANCE SPECIALIST
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	VICTORIA'S SECRET, LLC
Entity Title:	Not reported
Affiliation Address:	4 LIMITED PARKWAY
Affiliation City:	REYNOLDSBURG
Affiliation State:	OH
Affiliation Country:	United States
Affiliation Zip:	43068
Affiliation Phone:	(614) 577-7000
Affiliation Type Desc:	Environmental Contact
Entity Name:	Mike Ryan
Entity Title:	Not reported
Affiliation Address:	2 LIMITED PARKWAY
Affiliation City:	COLUMBUS
Affiliation State:	OH
Affiliation Country:	Not reported
Affiliation Zip:	43230
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2 LIMITED PARKWAY
Affiliation City:	COLUMBUS
Affiliation State:	OH
Affiliation Country:	Not reported
Affiliation Zip:	43230
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	VICTORIA SECRET STORE #1411
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported

VICTORIA SECRET STORE #1411 (Continued) **S121781535**

Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(925) 516-5796
Affiliation Type Desc:	Parent Corporation
Entity Name:	L Brands
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

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6 **SHELL YARD** **CPS-SLIC S106230276**
NW **3052 HEIDORN RANCH RD** **CDL N/A**
< 1/8 **ANTIOCH, CA 94531** **CERS**
0.069 mi.
366 ft.

Relative:
Lower

Actual:
153 ft.

CPS-SLIC:

Name:	SHELL YARD
Address:	3052 HEIDORN RANCH RD
City,State,Zip:	ANTIOCH, CA 94531
Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	02/17/2011
Global Id:	SL0601369421
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	37.94806
Longitude:	-121.751851
Case Type:	Cleanup Program Site
Case Worker:	KAS
Local Agency:	Not reported
RB Case Number:	SL0601369421
File Location:	Regional Board
Potential Media Affected:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	* Petroleum - Automotive gasolines, * Petroleum - Diesel fuels, * Petroleum - Waste oil
Site History:	The Site is at the intersection of Heidorn Ranch Road and Sand Creek Road in Antioch. The 10-acre lot was formerly used as an office and maintenance yard for pipeline operations, with secondary use as a support area for oil and gas production operations. The Site is bounded on all sides by agricultural fields.

Click here to access the California GeoTracker records for this facility:

SLIC REG 5:

Name:	Oxy USA Inc. Shell Yard
Address:	3052 Heidorn Ranch Rd
City:	Antioch
Region:	5
Facility Status:	Preliminary Assessment
Unit:	Facility is a Spill or site

SHELL YARD (Continued) **S106230276**

Pollutant: TPH g,d, BTEX
Lead Agency: MES
Date Filed: / /
Report Date: / /
Date Added: Not reported
Date Closed: Not reported

CDL:
Name: Not reported
Address: 3052 HEIDORN RANCH
City,State,Zip: ANTIOCH, CA 94509
Facility ID: 2000-11-134
Date: 11/26/2000
Labtype: Abandoned Drug Lab
Lab Type: Abandoned Drug Lab Waste (A) - location away from an actual illegal drug lab where drug lab waste and/or equipment were abandoned.

CERS:
Name: SHELL YARD
Address: 3052 HEIDORN RANCH RD
City,State,Zip: ANTIOCH, CA 94531
Site ID: 206713
CERS ID: SL0601369421
CERS Description: Cleanup Program Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: KRISTIN SHELTON - CENTRAL VALLEY RWQCB (REGION 5S)
Entity Title: Not reported
Affiliation Address: 11020 SUN CENTER DRIVE #200
Affiliation City: RANCHO CORDOVA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

B7 **THE TALBOTS INC. #1193** **CERS HAZ WASTE** **S121748280**
East **2565 SAND CREEK RD STE 104** **N/A**
< 1/8 **BRENTWOOD, CA 94513**
0.092 mi.
488 ft. **Site 1 of 14 in cluster B**

Relative:
Lower

Actual:
133 ft.

CERS HAZ WASTE:
Name: THE TALBOTS INC. #1193
Address: 2565 SAND CREEK RD STE 104
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 161128
CERS ID: 10610956
CERS Description: Hazardous Waste Generator

Violations:
Site ID: 161128
Site Name: The Talbots Inc. #1193
Violation Date: 05-09-2016
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description: Tiered Permitting Program - Administration/Documentation - General

THE TALBOTS INC. #1193 (Continued) **S121748280**

Violation Notes:	Returned to compliance on 06/09/2016.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS
Site ID:	161128
Site Name:	The Talbots Inc. #1193
Violation Date:	09-10-2019
Citation:	22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description:	Failure to obtain an Identification Number prior to treating, storing, disposing of, transporting or offering for transportation any hazardous waste.
Violation Notes:	Returned to compliance on 09/11/2019. OBSERVATION: The generator's EPA ID number is inactive. A hazardous waste generator shall not treat, store, dispose of, transport or offer for transportation, hazardous waste without an active EPA ID number. CORRECTIVE ACTION: Submit documentation to the CUPA demonstrating that you have reactivated the facility's EPA ID number.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	05-09-2016
Violations Found:	Yes
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	09-11-2019
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-27-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	09-10-2019
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department

THE TALBOTS INC. #1193 (Continued) **S121748280**

Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 161128
Site Name: The Talbots Inc. #1193
Site Address: 2565 SAND CREEK RD STE 104
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 05-09-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 161128
Site Name: The Talbots Inc. #1193
Site Address: 2565 SAND CREEK RD STE 104
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 09-10-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: Safety Kleen
Entity Title: Not reported
Affiliation Address: 2600 N.Central Expressway, Ste. 400
Affiliation City: Richardson
Affiliation State: TX
Affiliation Country: Not reported
Affiliation Zip: 75080
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 2565 Sand Creek Rd Ste 104
Affiliation City: Brentwood
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94513
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: Contra Costa County Health Services Department
Entity Title: Not reported
Affiliation Address: 4585 Pacheco BlvdSuite 100
Affiliation City: Martinez

THE TALBOTS INC. #1193 (Continued) **S121748280**

Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200
Affiliation Type Desc:	Operator
Entity Name:	The Talbots Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(781) 749-7600
Affiliation Type Desc:	Parent Corporation
Entity Name:	The Talbots Inc. #1193
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Melissa Anzalone
Entity Title:	Manger, Stores Maintenance
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Document Preparer
Entity Name:	Melissa Anzalone
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	The Talbots Inc.
Entity Title:	Not reported
Affiliation Address:	1 Talbots Drive
Affiliation City:	Hingham
Affiliation State:	MA
Affiliation Country:	United States
Affiliation Zip:	02043
Affiliation Phone:	(781) 749-7600

B8 **LENSCRAFTERS #5612** **HAZNET** **S117543103**
East **2565 SAND CREEK RD STE 124** **CONTRA COSTA CO. SITE LIST** **N/A**
< 1/8 **BRENTWOOD, CA 94513** **HWTS**
0.092 mi.
488 ft. **Site 2 of 14 in cluster B**

Relative:
Lower

Actual:
133 ft.

HAZNET:

Name:	LENSCRAFTERS #5612
Address:	2565 SAND CREEK RD STE 124
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 945137191
Contact:	ANDREW PETTY
Telephone:	5137656909
Mailing Name:	Not reported
Mailing Address:	4000 LUXOTTICA PL
Year:	2015
Gepaid:	CAL000338146
TSD EPA ID:	OKD000402396
CA Waste Code:	352 - Other organic solids
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0075
Year:	2015
Gepaid:	CAL000338146
TSD EPA ID:	OKD000402396
CA Waste Code:	134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0042

Additional Info:

Year:	2015
Gen EPA ID:	CAL000338146
Shipment Date:	20150328
Creation Date:	9/22/2015 22:15:43
Receipt Date:	20150424
Manifest ID:	009106531JJK
Trans EPA ID:	MIK435642742
Trans Name:	EQ INDUSTRIAL SERVICES
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT INC
TSDF EPA ID:	OKD000402396
Trans Name:	EQ OKLAHOMA INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	352 - Other organic solids
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0075
Waste Quantity:	15
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported

LENSCRAFTERS #5612 (Continued) **S117543103**

Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150328
Creation Date:	9/22/2015 22:15:43
Receipt Date:	20150424
Manifest ID:	009106531JJK
Trans EPA ID:	MIK435642742
Trans Name:	EQ INDUSTRIAL SERVICES
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT INC
TSDF EPA ID:	OKD000402396
Trans Name:	EQ OKLAHOMA INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0042
Waste Quantity:	1
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CONTRA COSTA CO. SITE LIST:

Name:	THE TALBOTS INC #1193
Address:	2565 SAND CREEK RD 104
City:	BRENTWOOD
Facility ID:	FA0036231
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: REPORTED ZERO
Region:	CONTRA COSTA
Cupa Number:	775008

HWTS:

Name:	LENSCRAFTERS #5612
Address:	2565 SAND CREEK RD STE 124
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 945137191
EPA ID:	CAL000338146
Inactive Date:	Not reported
Create Date:	11/24/2008
Last Act Date:	09/06/2019
Mailing Name:	Not reported
Mailing Address:	4000 LUXOTTICA PL
Mailing Address 2:	RX GLOBAL OPERATIONS
Mailing City,State,Zip:	MASON, OH 450408114
Owner Name:	LUXOTTICA RETAIL NA
Owner Address:	4000 LUXOTTICA PL
Owner Address 2:	Not reported
Owner City,State,Zip:	MASON, OH 450400000

LENSCRAFTERS #5612 (Continued) **S117543103**

Contact Name: MELISSA OLBERDING
Contact Address: 4000 LUXOTTICA PLACE
Contact Address 2: Not reported
City,State,Zip: CINCINNATI, OH 45040

NAICS:
EPA ID: CAL000338146
Create Date: 2008-11-24 11:44:33
NAICS Code: 44613
NAICS Description: Optical Goods Stores
Issued EPA ID Date: 2008-11-24 11:44:33
Inactive Date: Not reported
Facility Name: LENSCRAFTERS #5612
Facility Address: 2565 SAND CREEK RD STE 124
Facility Address 2: Not reported
Facility City: BRENTWOOD
Facility County: 07
Facility State: CA
Facility Zip: 945137191

B9 **LENSCRAFTERS #5612** **CERS HAZ WASTE** **S109420854**
East **2565 SAND CREEK RD** **CONTRA COSTA CO. SITE LIST** **N/A**
< 1/8 **BRENTWOOD, CA 94513**
0.092 mi.
488 ft. **Site 3 of 14 in cluster B**

Relative:
Lower

Actual:
133 ft.

CERS HAZ WASTE:
Name: LENSCRAFTERS #5612
Address: 2565 SAND CREEK RD
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 130348
CERS ID: 10019485
CERS Description: Hazardous Waste Generator

Violations:
Site ID: 130348
Site Name: LENSCRAFTERS #5612
Violation Date: 05-16-2014
Citation: HSC 6.67 Multiple Sections - California Health and Safety Code, Chapter 6.67, Section(s) Multiple Sections
Violation Description: Tiered Permitting Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 06/20/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: CE
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-17-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: CE
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

LENSCRAFTERS #5612 (Continued) **S109420854**

Eval Date: 05-17-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-16-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-11-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: CE
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-18-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: CE
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-16-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: CE
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-18-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 130348
Site Name: LENSCRAFTERS #5612
Site Address: 2565 SAND CREEK RD

LENSCRAFTERS #5612 (Continued) **S109420854**

Site City:	BRENTWOOD
Site Zip:	94513
Enf Action Date:	05-16-2014
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	CE
Enf Action Source:	CERS

Coordinates:

Site ID:	130348
Facility Name:	LENSCRAFTERS #5612
Env Int Type Code:	HWG
Program ID:	10019485
Coord Name:	Not reported
Ref Point Type Desc:	Unknown
Latitude:	37.943679
Longitude:	-121.740567

Affiliation:

Affiliation Type Desc:	Environmental Contact
Entity Name:	JAY MCDONALD
Entity Title:	Not reported
Affiliation Address:	4000 Luxottica Place
Affiliation City:	Mason
Affiliation State:	OH
Affiliation Country:	Not reported
Affiliation Zip:	45040
Affiliation Phone:	Not reported

Affiliation Type Desc:	Operator
Entity Name:	LENSCRAFTERS #5612
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(925) 240-8506

Affiliation Type Desc:	Parent Corporation
Entity Name:	LensCrafters
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	Luxottica North America
Entity Title:	Not reported
Affiliation Address:	4000 Luxottica Place
Affiliation City:	Mason

LENSCRAFTERS #5612 (Continued) **S109420854**

Affiliation State:	OH
Affiliation Country:	United States
Affiliation Zip:	45040
Affiliation Phone:	(513) 765-6000
Affiliation Type Desc:	Onsite Treatment Unit Owner Operator
Entity Name:	Jackie Richardson
Entity Title:	EH&S Specialist
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Onsite Treatment Unit Owner Operator
Entity Name:	Jay McDonald
Entity Title:	Director, In-Store Projects
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Document Preparer
Entity Name:	Jay McDonald
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Jay McDonald
Entity Title:	Director, In-Store Projects
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Onsite Treatment Unit Owner Operator
Entity Name:	ANDREW PETTY
Entity Title:	MANAGER OF SAFETY & ENVIRONMENTAL HEALTH
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department

LENSCRAFTERS #5612 (Continued) **S109420854**

Entity Title: Not reported
Affiliation Address: 4585 Pacheco BlvdSuite 100
Affiliation City: Martinez
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94553
Affiliation Phone: (925) 335-3200

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 4000 Luxottica Place
Affiliation City: Mason
Affiliation State: OH
Affiliation Country: Not reported
Affiliation Zip: 45040
Affiliation Phone: Not reported

Name: LENSCRAFTERS #5612
Address: 2565 SAND CREEK RD
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 130348
CERS ID: 10019485
CERS Description: Hazardous Waste Onsite Treatment

Violations:
Site ID: 130348
Site Name: LENSCRAFTERS #5612
Violation Date: 05-16-2014
Citation: HSC 6.67 Multiple Sections - California Health and Safety Code, Chapter 6.67, Section(s) Multiple Sections
Violation Description: Tiered Permitting Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 06/20/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: CE
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-17-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: CE
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-17-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

LENSCRAFTERS #5612 (Continued) **S109420854**

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-16-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	07-11-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	CE
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-18-2018
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	CE
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-16-2014
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	CE
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-18-2018
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Enforcement Action:

Site ID:	130348
Site Name:	LENSCRAFTERS #5612
Site Address:	2565 SAND CREEK RD
Site City:	BRENTWOOD
Site Zip:	94513
Enf Action Date:	05-16-2014
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	CE

LENSCRAFTERS #5612 (Continued) **S109420854**

Enf Action Source: CERS

Coordinates:
Site ID: 130348
Facility Name: LENSCRAFTERS #5612
Env Int Type Code: HWG
Program ID: 10019485
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.943679
Longitude: -121.740567

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: JAY MCDONALD
Entity Title: Not reported
Affiliation Address: 4000 Luxottica Place
Affiliation City: Mason
Affiliation State: OH
Affiliation Country: Not reported
Affiliation Zip: 45040
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: LENSCRAFTERS #5612
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (925) 240-8506

Affiliation Type Desc: Parent Corporation
Entity Name: LensCrafters
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: Luxottica North America
Entity Title: Not reported
Affiliation Address: 4000 Luxottica Place
Affiliation City: Mason
Affiliation State: OH
Affiliation Country: United States
Affiliation Zip: 45040
Affiliation Phone: (513) 765-6000

Affiliation Type Desc: Onsite Treatment Unit Owner Operator
Entity Name: Jackie Richardson
Entity Title: EH&S Specialist

LENSCRAFTERS #5612 (Continued) **S109420854**

Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Onsite Treatment Unit Owner Operator
Entity Name:	Jay McDonald
Entity Title:	Director, In-Store Projects
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Document Preparer
Entity Name:	Jay McDonald
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Jay McDonald
Entity Title:	Director, In-Store Projects
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Onsite Treatment Unit Owner Operator
Entity Name:	ANDREW PETTY
Entity Title:	MANAGER OF SAFETY & ENVIRONMENTAL HEALTH
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200

LENSCRAFTERS #5612 (Continued) **S109420854**

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	4000 Luxottica Place
Affiliation City:	Mason
Affiliation State:	OH
Affiliation Country:	Not reported
Affiliation Zip:	45040
Affiliation Phone:	Not reported

CONTRA COSTA CO. SITE LIST:

Name:	LENSCRAFTERS #5612
Address:	2565 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0030589
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: REPORTED ZERO
Region:	CONTRA COSTA
Cupa Number:	773920

Name:	LENSCRAFTERS #5612
Address:	2565 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0030589
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	TP: CONDITIONALLY EXEMPT
Region:	CONTRA COSTA
Cupa Number:	773920

Name:	LENSCRAFTERS #5612
Address:	2565 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0030589
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP: LESS THAN 1000 LBS
Region:	CONTRA COSTA
Cupa Number:	773920

B10 **LENSCRAFTERS #5612** **RCRA NonGen / NLR** **1024821682**
East **2565 SAND CREEK RD STE 124** **CAL000338146**
< 1/8 **BRENTWOOD, CA 94513**
0.092 mi.
488 ft. **Site 4 of 14 in cluster B**

Relative: **Lower**

Actual: **133 ft.**

RCRA NonGen / NLR:

Date form received by agency:	2008-11-24 00:00:00.0
Facility name:	LENSCRAFTERS #5612
Facility address:	2565 SAND CREEK RD STE 124 BRENTWOOD, CA 94513-7191
EPA ID:	CAL000338146
Mailing address:	4000 LUXOTTICA PL RX GLOBAL OPERATIONS MASON, OH 45040-8114

LENSCRAFTERS #5612 (Continued) **1024821682**

Contact:	JACKIE RICHARDSON
Contact address:	4000 LUXOTTICA PLACE MASON, OH 45040
Contact country:	Not reported
Contact telephone:	513-765-4311
Contact email:	JRICHARD@LUXOTTICARETAIL.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	JACKIE RICHARDSON
Owner/operator address:	4000 LUXOTTICA PLACE MASON, OH 45040
Owner/operator country:	Not reported
Owner/operator telephone:	513-765-4311
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	LUXOTTICA RETAIL NA
Owner/operator address:	4000 LUXOTTICA PL MASON, OH 45040
Owner/operator country:	Not reported
Owner/operator telephone:	513-765-6000
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

B11
East
< 1/8
0.092 mi.
488 ft.

Relative:
Lower

Actual:
133 ft.

RCRA NonGen / NLR **1025869232**
CAL000402609

2565 SAND CREEK RD STE 104
BRENTWOOD, CA 94513

Site 5 of 14 in cluster B

RCRA NonGen / NLR:

Date form received by agency:	2014-12-01 00:00:00.0
Facility name:	Not reported
Facility address:	2565 SAND CREEK RD STE 104 BRENTWOOD, CA 94513
EPA ID:	CAL000402609
Contact:	CLAUDINE ONCENA
Contact address:	2565 SAND CREEK RD STE 104 BRENTWOOD, CA 94513
Contact country:	Not reported
Contact telephone:	925-240-0350
Contact email:	CLAUDINE.ONCENA@TALBOTS.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	CLAUDINE ONCENA
Owner/operator address:	2565 SAND CREEK RD STE 104 BRENTWOOD, CA 94513
Owner/operator country:	Not reported
Owner/operator telephone:	925-240-0350
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	THE TALBOTS INC
Owner/operator address:	1 TALBOTS DR HINGHAM, MA 02043
Owner/operator country:	Not reported
Owner/operator telephone:	781-741-4140
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No

(Continued) **1025869232**

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

B12 **ROUND TABLE PIZZA** **CONTRA COSTA CO. SITE LIST** **S123815529**
East **2540 SAND CREEK RD** **N/A**
< 1/8 **BRENTWOOD, CA 94513**
0.095 mi.
503 ft. **Site 6 of 14 in cluster B**

Relative:
Lower

Actual:
130 ft.

CONTRA COSTA CO. SITE LIST:
Name: ROUND TABLE PIZZA
Address: 2540 SAND CREEK RD
City: BRENTWOOD
Facility ID: FA0042931
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HMBP GENERAL
Region: CONTRA COSTA
Cupa Number: 776401

B13 **EXPRESS FASHION OPERATIONS LLC** **CERS HAZ WASTE** **S118152340**
East **2545 SAND CREEK RD** **HAZNET** **N/A**
< 1/8 **BRENTWOOD, CA 94513** **CONTRA COSTA CO. SITE LIST**
0.102 mi. **HWTS**
537 ft. **Site 7 of 14 in cluster B**

Relative:
Lower

Actual:
131 ft.

CERS HAZ WASTE:
Name: EXPRESS 2007
Address: 2545 SAND CREEK RD
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 355821
CERS ID: 10638574
CERS Description: Hazardous Waste Generator

Violations:
Site ID: 355821
Site Name: Express 2007
Violation Date: 08-22-2016
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description: Hazardous Waste Generator Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 09/02/2016.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Site ID: 355821
Site Name: Express 2007
Violation Date: 08-22-2016
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5,

EXPRESS FASHION OPERATIONS LLC (Continued) **S118152340**

	Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Administration/Documentation - General
Violation Notes:	Returned to compliance on 09/16/2016.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	09-19-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-22-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Enforcement Action:

Site ID:	355821
Site Name:	Express 2007
Site Address:	2545 SAND CREEK RD
Site City:	BRENTWOOD
Site Zip:	94513
Enf Action Date:	08-22-2016
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	HW
Enf Action Source:	CERS

Coordinates:

Site ID:	355821
Facility Name:	Express 2007
Env Int Type Code:	HWG
Program ID:	10638574
Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	37.943690
Longitude:	-121.740160

Affiliation:

Affiliation Type Desc:	Environmental Contact
Entity Name:	g2 revolution
Entity Title:	Not reported

EXPRESS FASHION OPERATIONS LLC (Continued) **S118152340**

Affiliation Address:	8585 Pyott Rd. Ste. 100
Affiliation City:	Lake in the Hills
Affiliation State:	IL
Affiliation Country:	Not reported
Affiliation Zip:	60156
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	Express Fashion Operations, LLC
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200
Affiliation Type Desc:	Document Preparer
Entity Name:	Jessica Otto, g2 revolution
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	8585 Pyott Rd. Ste. 100
Affiliation City:	Lake in the Hills
Affiliation State:	IL
Affiliation Country:	Not reported
Affiliation Zip:	60156
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	Express 2007
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(925) 513-7946

EXPRESS FASHION OPERATIONS LLC (Continued) **S118152340**

Affiliation Type Desc:	Identification Signer
Entity Name:	Jessica Otto
Entity Title:	Environmental Specialist, g2 revolution
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	Express Fashion Operations, LLC
Entity Title:	Not reported
Affiliation Address:	1 Express Drive
Affiliation City:	Columbus
Affiliation State:	OH
Affiliation Country:	United States
Affiliation Zip:	43230
Affiliation Phone:	(614) 474-4001

HAZNET:

Name:	EXPRESS FASHION OPERATIONS LLC
Address:	2545 SAND CREEK RD
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 94513
Contact:	BARRY WILSON
Telephone:	6144744028
Mailing Name:	Not reported
Mailing Address:	1 EXPRESS DR

Year:	2016
Gepaid:	CAL000405426
TSD EPA ID:	NVT330010000
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.004

CONTRA COSTA CO. SITE LIST:

Name:	EXPRESS 2007
Address:	2545 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0036913
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: REPORTED ZERO
Region:	CONTRA COSTA
Cupa Number:	775093

HWTS:

Name:	EXPRESS FASHION OPERATIONS LLC
Address:	2545 SAND CREEK RD
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 94513

EXPRESS FASHION OPERATIONS LLC (Continued) **S118152340**

EPA ID:	CAL000405426
Inactive Date:	06/30/2016
Create Date:	03/23/2015
Last Act Date:	01/12/2017
Mailing Name:	Not reported
Mailing Address:	1 EXPRESS DR
Mailing Address 2:	Not reported
Mailing City,State,Zip:	COLUMBUS, OH 43230
Owner Name:	EXPRESS LLC
Owner Address:	1 EXPRESS DR
Owner Address 2:	Not reported
Owner City,State,Zip:	COLUMBUS, OH 43230
Contact Name:	BARRY WILSON
Contact Address:	1 EXPRESS DRIVE
Contact Address 2:	Not reported
City,State,Zip:	COLUMBUS, OH 432300000

NAICS:

EPA ID:	CAL000405426
Create Date:	2015-03-23 09:17:42
NAICS Code:	44819
NAICS Description:	Other Clothing Stores
Issued EPA ID Date:	2015-03-23 09:17:42
Inactive Date:	2016-06-30 00:00:00
Facility Name:	EXPRESS FASHION OPERATIONS LLC
Facility Address:	2545 SAND CREEK RD
Facility Address 2:	Not reported
Facility City:	BRENTWOOD
Facility County:	07
Facility State:	CA
Facility Zip:	94513

B14 **EXPRESS 2007** **RCRA NonGen / NLR** **1024859381**
East **2545 SANDCREEK ROAD** **CAL000426403**
< 1/8 **BRENTWOOD, CA 94513**
0.102 mi.
537 ft. **Site 8 of 14 in cluster B**

Relative:
Lower

Actual:
131 ft.

RCRA NonGen / NLR:

Date form received by agency:	2017-03-29 00:00:00.0
Facility name:	EXPRESS 2007
Facility address:	2545 SANDCREEK ROAD BRENTWOOD, CA 94513
EPA ID:	CAL000426403
Mailing address:	8585 PYOTT RD STE 100 LAKE IN THE HILLS, IL 60156
Contact:	JESSICA OTTO
Contact address:	8585 PYOTT RD STE 100 LAKE IN THE HILLS, IL 60156
Contact country:	Not reported
Contact telephone:	224-858-4583
Contact email:	JESSICA.OTTO@G2REV.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

EXPRESS 2007 (Continued) **1024859381**

Owner/Operator Summary:

Owner/operator name:	JESSICA OTTO
Owner/operator address:	8585 PYOTT RD STE 100 LAKE IN THE HILLS, IL 60156
Owner/operator country:	Not reported
Owner/operator telephone:	224-858-4583
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	EXPRESS FASHION OPERATIONS LLC
Owner/operator address:	1 EXPRESS DR COLUMBUS, OH 43230
Owner/operator country:	Not reported
Owner/operator telephone:	614-474-7000
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

15
ESE
< 1/8
0.104 mi.
547 ft.

BRENTWOOD SHOPPING CENTER
2200 SAN JOSE AVENUE
BRENTWOOD, CA 94513

CPS-SLIC **S106707855**
CERS **N/A**

Relative:
Lower

Actual:
122 ft.

CPS-SLIC:

Name:	BRENTWOOD SHOPPING CENTER
Address:	2200 SAN JOSE AVENUE
City,State,Zip:	BRENTWOOD, CA 94513
Region:	STATE
Facility Status:	**Completed - Case Closed**

BRENTWOOD SHOPPING CENTER (Continued) **S106707855**

Status Date:	06/19/2001
Global Id:	SL0601334843
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	37.946104
Longitude:	-121.703137
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	SLT5S772
File Location:	Regional Board
Potential Media Affected:	Under Investigation
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 5:

Name:	Brentwood Shopping Center
Address:	2200 San Jose Ave
City:	Brentwood
Region:	5
Facility Status:	Remediation Completed
Unit:	Facility is a Spill or site
Pollutant:	TPH
Lead Agency:	MES
Date Filed:	/ /
Report Date:	03/13/01
Date Added:	Not reported
Date Closed:	6/19/2001

CERS:

Name:	BRENTWOOD SHOPPING CENTER
Address:	2200 SAN JOSE AVENUE
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	226234
CERS ID:	SL0601334843
CERS Description:	Cleanup Program Site

B16 **ROSS DRESS FOR LESS #0629** **CERS HAZ WASTE** **S117047935**
East **2520 SAND CREEK RD** **HAZNET** **N/A**
< 1/8 **BRENTWOOD, CA 94513** **CONTRA COSTA CO. SITE LIST**
0.107 mi. **HWTS**
565 ft. **Site 9 of 14 in cluster B**

Relative:
Lower

Actual:
130 ft.

CERS HAZ WASTE:

Name:	ROSS DRESS FOR LESS #0629
Address:	2520 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	149102
CERS ID:	10509043
CERS Description:	Hazardous Waste Generator

Violations:

Site ID:	149102
Site Name:	Ross Dress For Less #0629
Violation Date:	09-10-2019

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Citation:	40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description:	Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
Violation Notes:	OBSERVATION: Toxic bin located in the hazardous waste area in the back of store was observed open. CORRECTIVE ACTION: Submit photos to the CUPA demonstrating that the container listed above has been properly closed.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS
Site ID:	149102
Site Name:	Ross Dress For Less #0629
Violation Date:	01-27-2016
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Haz Waste Generator Program - Administration/Documentation - General
Violation Notes:	Returned to compliance on 02/01/2016.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS
Site ID:	149102
Site Name:	Ross Dress For Less #0629
Violation Date:	09-10-2019
Citation:	HSC 6.5 25123.3(h) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)
Violation Description:	Failure to determine the status of any hazardous waste if a signed copy of the manifest isnG t received within 35 days of the date the waste was accepted by the initial transporter and/or to submit an Exception Report to DTSC if a signed copy of the manifest isnG t received within 60 days of the date the waste was accepted by the initial transporter.
Violation Notes:	OBSERVATION: The generator failed to file an exception report with the DTSC after not receiving a destination facility signed copy of the uniform hazardous waste manifest within 60 days of the waste shipment date. This includes (1) manifest from 2017, (2) from 2018, and (3) from 2019. CORRECTIVE ACTION: Either locate a copy of the missing manifests or prepare and submit an exception report to DTSC (DTSC Report Repository; Generator Information Services Section; P.O. Box 806; Sacramento, CA 95812-0806). Submit copies to the CUPA.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-27-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 02-05-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-10-2019
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 149102
Site Name: Ross Dress For Less #0629
Site Address: 2520 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 01-27-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 149102
Site Name: Ross Dress For Less #0629
Site Address: 2520 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 09-10-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Coordinates:
Site ID: 149102
Facility Name: Ross Dress For Less #0629
Env Int Type Code: HWG
Program ID: 10509043
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.943470

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Longitude: -121.737470

Affiliation:

Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200

Affiliation Type Desc:	Identification Signer
Entity Name:	Ashley Campbell
Entity Title:	ENVIRONMENTAL COMPLIANCE SPECIALIST
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	Ross Dress For Less Inc.
Entity Title:	Not reported
Affiliation Address:	5130 Hacienda Dr
Affiliation City:	Dublin
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94568-7579
Affiliation Phone:	(925) 965-4831

Affiliation Type Desc:	Parent Corporation
Entity Name:	Ross Stores, Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Property Owner
Entity Name:	Ross Dress For Less, Inc.
Entity Title:	Not reported
Affiliation Address:	5130 Hacienda Dr
Affiliation City:	Dublin
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94568-7579
Affiliation Phone:	(925) 965-4831

Affiliation Type Desc:	Document Preparer
Entity Name:	ASHLEY CAMPBELL
Entity Title:	Not reported
Affiliation Address:	Not reported

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	ASHLEY CAMPBELL
Entity Title:	Not reported
Affiliation Address:	5151 San Felipe St, Suite 1000
Affiliation City:	Houston
Affiliation State:	TX
Affiliation Country:	Not reported
Affiliation Zip:	77056
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	5130 Hacienda Dr
Affiliation City:	Dublin
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94568-7579
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	Ross Dress For Less Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(925) 965-4831

HAZNET:

Name:	ROSS DRESS FOR LESS #0629
Address:	2520 SAND CREEK RD
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 945137059
Contact:	KATHY HATCH
Telephone:	9259654015
Mailing Name:	Not reported
Mailing Address:	5151 SAN FELIPE ST STE 1000
Year:	2017
Gepaid:	CAL000397536
TSD EPA ID:	CAD980884183
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.056
Year:	2016
Gepaid:	CAL000397536

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

TSD EPA ID: CAD980884183
CA Waste Code: 122 - Alkaline solution without metals pH >= 12.5
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0025

Year: 2016
Gepaid: CAL000397536
TSD EPA ID: CAD980884183
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.097

Year: 2015
Gepaid: CAL000397536
TSD EPA ID: NVD980895338
CA Waste Code: 122 - Alkaline solution without metals pH >= 12.5
Disposal Method: H121 - Neutralization Only
Tons: 0.0015

Year: 2015
Gepaid: CAL000397536
TSD EPA ID: NVD980895338
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0835

Year: 2015
Gepaid: CAL000397536
TSD EPA ID: CAD980884183
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.05

Additional Info:
Year: 2016
Gen EPA ID: CAL000397536

Shipment Date: 20151229
Creation Date: 3/22/2016 22:15:44
Receipt Date: 20151230
Manifest ID: 000128132DAT
Trans EPA ID: CAR000210617
Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAD980884183
Trans Name: GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
CA Waste Code: 331 - Off-specification, aged, or surplus organics
RCRA Code: D001
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

	Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151229
Creation Date:	3/22/2016 22:15:44
Receipt Date:	20151230
Manifest ID:	000128132DAT
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D016
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0475
Waste Quantity:	95
Quantity Unit:	P
Additional Code 1:	D011
Additional Code 2:	D008
Additional Code 3:	D006
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151229
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	000128132DAT
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	- Not reported
Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Additional Code 5:	Not reported
Shipment Date:	20150715
Creation Date:	2/9/2016 22:15:11
Receipt Date:	20150727
Manifest ID:	001065447PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVR000089375
Trans 2 Name:	DOUBLE BARREL ENVIRONMENTAL SERVICES
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0585
Waste Quantity:	117
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150715
Creation Date:	2/9/2016 22:15:11
Receipt Date:	20150727
Manifest ID:	001065447PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVR000089375
Trans 2 Name:	DOUBLE BARREL ENVIRONMENTAL SERVICES
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150128
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	- Not reported
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0035
Waste Quantity:	7
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20150128
Creation Date:	8/21/2015 22:15:14
Receipt Date:	20150204
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Disposal Method:	H121 - Neutralization Only
Quantity Tons:	0.0015
Waste Quantity:	3
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20150128
Creation Date:	8/21/2015 22:15:14
Receipt Date:	20150204
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

RCRA Code:	D016
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	D011
Additional Code 2:	D008
Additional Code 3:	D006
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150128
Creation Date:	8/21/2015 22:15:14
Receipt Date:	20150204
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150128
Creation Date:	8/21/2015 22:15:14
Receipt Date:	20150204
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.002
Waste Quantity:	4
Quantity Unit:	P
Additional Code 1:	Not reported

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2017
Gen EPA ID:	CAL000397536
Shipment Date:	20171019
Creation Date:	10/9/2018 18:30:56
Receipt Date:	20171120
Manifest ID:	001683187PSC
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.005
Waste Quantity:	10
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20171019
Creation Date:	10/9/2018 18:30:56
Receipt Date:	20171120
Manifest ID:	001683187PSC
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0095
Waste Quantity:	19
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Additional Code 5:	Not reported
Shipment Date:	20171019
Creation Date:	10/9/2018 18:30:56
Receipt Date:	20171120
Manifest ID:	001683187PSC
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D016
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.062
Waste Quantity:	124
Quantity Unit:	P
Additional Code 1:	D011
Additional Code 2:	D008
Additional Code 3:	D006
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170502
Creation Date:	5/17/2018 18:31:33
Receipt Date:	20170509
Manifest ID:	001541994PSC
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170502
Creation Date:	5/17/2018 18:31:33
Receipt Date:	20170509
Manifest ID:	001541994PSC
Trans EPA ID:	MNS000110924

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D016
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0535
Waste Quantity:	107
Quantity Unit:	P
Additional Code 1:	D011
Additional Code 2:	D008
Additional Code 3:	D006
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2015
Gen EPA ID:	CAL000397536
Shipment Date:	20151229
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	000128132DAT
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	- Not reported
Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151229
Creation Date:	3/22/2016 22:15:44
Receipt Date:	20151230
Manifest ID:	000128132DAT
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D016
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0475
Waste Quantity:	95
Quantity Unit:	P
Additional Code 1:	D011
Additional Code 2:	D008
Additional Code 3:	D006
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151229
Creation Date:	3/22/2016 22:15:44
Receipt Date:	20151230
Manifest ID:	000128132DAT
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC DBA PSC ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150715
Creation Date:	2/9/2016 22:15:11
Receipt Date:	20150727
Manifest ID:	001065447PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVR000089375
Trans 2 Name:	DOUBLE BARREL ENVIRONMENTAL SERVICES
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150715
Creation Date:	2/9/2016 22:15:11
Receipt Date:	20150727
Manifest ID:	001065447PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVR000089375
Trans 2 Name:	DOUBLE BARREL ENVIRONMENTAL SERVICES
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0585
Waste Quantity:	117
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150128
Creation Date:	8/21/2015 22:15:14
Receipt Date:	20150204
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Disposal Method:	H121 - Neutralization Only
Quantity Tons:	0.0015
Waste Quantity:	3
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Shipment Date:	20150128
Creation Date:	8/21/2015 22:15:14
Receipt Date:	20150204
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D016
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	D011
Additional Code 2:	D008
Additional Code 3:	D006
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20150128
Creation Date:	8/21/2015 22:15:14
Receipt Date:	20150204
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.002
Waste Quantity:	4
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20150128
Creation Date:	8/21/2015 22:15:14
Receipt Date:	20150204
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20150128
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	000937796PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.038
Waste Quantity:	76
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CONTRA COSTA CO. SITE LIST:

Name:	ROSS DRESS FOR LESS #0629
Address:	2520 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0035793
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: LESS THAN 5 TONS/YEAR
Region:	CONTRA COSTA
Cupa Number:	774910

HWTS:

Name:	ROSS DRESS FOR LESS #0629

ROSS DRESS FOR LESS #0629 (Continued) **S117047935**

Address:	2520 SAND CREEK RD
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 945137059
EPA ID:	CAL000397536
Inactive Date:	Not reported
Create Date:	06/06/2014
Last Act Date:	10/03/2019
Mailing Name:	Not reported
Mailing Address:	5151 SAN FELIPE ST STE 1000
Mailing Address 2:	Not reported
Mailing City,State,Zip:	HOUSTON, TX 77056
Owner Name:	ROSS DRESS FOR LESS INC
Owner Address:	5130 HACIENDA DR
Owner Address 2:	Not reported
Owner City,State,Zip:	DUBLIN, CA 94568
Contact Name:	KATHY HATCH
Contact Address:	5130 HACIENDA DR
Contact Address 2:	3RD FLOOR
City,State,Zip:	DUBLIN, CA 94568

NAICS:

EPA ID:	CAL000397536
Create Date:	2014-06-06 10:24:23
NAICS Code:	44814
NAICS Description:	Family Clothing Stores
Issued EPA ID Date:	2014-06-06 10:24:23
Inactive Date:	Not reported
Facility Name:	ROSS DRESS FOR LESS #0629
Facility Address:	2520 SAND CREEK RD
Facility Address 2:	Not reported
Facility City:	BRENTWOOD
Facility County:	07
Facility State:	CA
Facility Zip:	945137059

B17 **ROSS DRESS FOR LESS #0629** **RCRA NonGen / NLR** **1024844854**
East **2520 SAND CREEK RD** **CAL000397536**
< 1/8 **BRENTWOOD, CA 94513**
0.107 mi.
565 ft. **Site 10 of 14 in cluster B**

Relative:
Lower

Actual:
130 ft.

RCRA NonGen / NLR:

Date form received by agency:	2014-06-06 00:00:00.0
Facility name:	ROSS DRESS FOR LESS #0629
Facility address:	2520 SAND CREEK RD BRENTWOOD, CA 94513-7059
EPA ID:	CAL000397536
Mailing address:	5151 SAN FELIPE ST STE 1000 HOUSTON, TX 77056
Contact:	KATHY HATCH
Contact address:	5130 HACIENDA DR 3RD FLOOR DUBLIN, CA 94568
Contact country:	Not reported
Contact telephone:	925-965-4015
Contact email:	ERIC.GUARD@ROS.COM
EPA Region:	09
Classification:	Non-Generator

ROSS DRESS FOR LESS #0629 (Continued) **1024844854**

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	KATHY HATCH
Owner/operator address:	5130 HACIENDA DR 3RD FLOOR DUBLIN, CA 94568
Owner/operator country:	Not reported
Owner/operator telephone:	925-965-4015
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	ROSS DRESS FOR LESS INC
Owner/operator address:	5130 HACIENDA DR DUBLIN, CA 94568
Owner/operator country:	Not reported
Owner/operator telephone:	925-965-4831
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

B18 **HOLLISTER CO** **CERS HAZ WASTE** **S113407791**
East **2505 SAND CREEK RD** **CONTRA COSTA CO. SITE LIST** **N/A**
< 1/8 **BRENTWOOD, CA 94513**
0.123 mi.
651 ft. **Site 11 of 14 in cluster B**

Relative:
Lower

Actual:
130 ft.

CERS HAZ WASTE:

Name:	HOLLISTER CO
Address:	2505 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	36719
CERS ID:	10477255
CERS Description:	Hazardous Waste Generator

Violations:

Site ID:	36719
Site Name:	HOLLISTER CO
Violation Date:	08-22-2016
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 10/13/2016.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Site ID:	36719
Site Name:	HOLLISTER CO
Violation Date:	08-22-2016
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Administration/Documentation - General
Violation Notes:	Returned to compliance on 10/13/2016.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Site ID:	36719
Site Name:	HOLLISTER CO
Violation Date:	05-24-2019
Citation:	HSC 6.11 25404(e)(4) - California Health and Safety Code, Chapter 6.11, Section(s) 25404(e)(4)
Violation Description:	Failure to report program data electronically.
Violation Notes:	OBSERVATION: ON APRIL 1, 2019, CCHSHMP SENT A NOTICE OF VIOLATION (ATTACHED) TO THE SUBJECT FACILITY FOR FAILURE TO SUBMIT A COMPLETE AND CORRECT CALIFORNIA ENVIRONMENTAL REPORTING SYSTEM (CERS) FACILITY INFORMATION SUBMITTAL ELEMENT TO CCHSHMP. AS OF MAY 24, 2019, THE VIOLATION REMAINS OUTSTANDING.- - CORRECTIVE ACTION: IMMEDIATELY LOG ONTO CERS (https://cers.calepa.ca.gov/) AND SUBMIT COMPLETE/CORRECT FACILITY INFORMATION SUBMITTAL ELEMENT.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Site ID:	36719
Site Name:	HOLLISTER CO
Violation Date:	04-01-2019
Citation:	HSC 6.11 25404(e)(4) - California Health and Safety Code, Chapter 6.11, Section(s) 25404(e)(4)

HOLLISTER CO (Continued) **S113407791**

Violation Description: Failure to report program data electronically.
Violation Notes: OBSERVATION: AS OF APRIL 1, 2019, A COMPLETE AND CORRECT CALIFORNIA ENVIRONMENTAL REPORTING SYSTEM (CERS) FACILITY INFORMATION SUBMITTAL ELEMENT HAS NOT BEEN RECEIVED/ACCEPTED BY CCHSHMP. CORRECTIVE ACTION: IMMEDIATELY LOG ONTO CERS (https://cers.calepa.ca.gov/) AND SUBMIT COMPLETE/CORRECT FACILITY INFORMATION SUBMITTAL ELEMENT.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 05-24-2019
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-22-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-01-2019
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-13-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 36719
Site Name: HOLLISTER CO
Site Address: 2505 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 04-01-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection

HOLLISTER CO (Continued) **S113407791**

Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 36719
Site Name: HOLLISTER CO
Site Address: 2505 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 05-24-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 36719
Site Name: HOLLISTER CO
Site Address: 2505 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 08-22-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Contra Costa County Health Services Department
Entity Title: Not reported
Affiliation Address: 4585 Pacheco BlvdSuite 100
Affiliation City: Martinez
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94553
Affiliation Phone: (925) 335-3200

Affiliation Type Desc: Operator
Entity Name: ABERCROMBIE & FITCH
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (614) 283-6500

Affiliation Type Desc: Document Preparer
Entity Name: Ian Kupferberg
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported

HOLLISTER CO (Continued) **S113407791**

Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	6301 FITCH PATH
Affiliation City:	NEW ALBANY
Affiliation State:	OH
Affiliation Country:	Not reported
Affiliation Zip:	43054
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Ian Kupferberg
Entity Title:	MANAGER, GLOBAL REGULATORY & ENVIRONMENTAL AFFAIRS
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	KIM HARR
Entity Title:	Not reported
Affiliation Address:	6301 FITCH PATH
Affiliation City:	NEW ALBANY
Affiliation State:	OH
Affiliation Country:	Not reported
Affiliation Zip:	43054
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	ABERCROMBIE & FITCH
Entity Title:	Not reported
Affiliation Address:	6301 FITCH PATH
Affiliation City:	NEW ALBANY
Affiliation State:	OH
Affiliation Country:	United States
Affiliation Zip:	43054
Affiliation Phone:	(614) 283-6500
Affiliation Type Desc:	Parent Corporation
Entity Name:	Abercrombie and Fitch
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

HOLLISTER CO (Continued) **S113407791**

CONTRA COSTA CO. SITE LIST:
Name: HOLLISTER CO
Address: 2505 SAND CREEK RD
City: BRENTWOOD
Facility ID: FA0033602
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG: REPORTED ZERO
Region: CONTRA COSTA
Cupa Number: 774576

Name: RUBIO'S RESTAURANTS INC. STORE 227
Address: 2505 SAND CREEK RD
City: BRENTWOOD
Facility ID: FA0037132
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HMBP: LESS THAN 1000 LBS
Region: CONTRA COSTA
Cupa Number: 775119

Name: BATH & BODY WORKS #2077
Address: 2505 SAND CREEK RD H-2
City: BRENTWOOD
Facility ID: FA0040331
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HMBP: LESS THAN 1000 LBS
Region: CONTRA COSTA
Cupa Number: 775755

Name: BATH & BODY WORKS #2077
Address: 2505 SAND CREEK RD H-2
City: BRENTWOOD
Facility ID: FA0040331
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG: LESS THAN 5 TONS/YEAR
Region: CONTRA COSTA
Cupa Number: 775755

B19 **BATH & BODY WORKS #2077** **CERS HAZ WASTE** **S121782685**
East **2505 SAND CREEK RD STE H-2** **CERS** **N/A**
< 1/8 **BRENTWOOD, CA 94513**
0.123 mi.
651 ft. **Site 12 of 14 in cluster B**

Relative:
Lower

Actual:
130 ft.

CERS HAZ WASTE:
Name: BATH & BODY WORKS #2077
Address: 2505 SAND CREEK RD STE H-2
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 426997
CERS ID: 10746034
CERS Description: Hazardous Waste Generator

CERS:
Name: BATH & BODY WORKS #2077

BATH & BODY WORKS #2077 (Continued) **S121782685**

Address: 2505 SAND CREEK RD STE H-2
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 426997
CERS ID: 10746034
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 426997
Site Name: BATH & BODY WORKS #2077
Violation Date: 06-11-2018
Citation: 22 CCR 15 66265.51 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.51
Violation Description: Failure to prepare and implement a written Contingency Plan to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.
Violation Notes: Returned to compliance on 07/31/2018. Facility submitted HWG form stating that they generated only 0.2 tons of waste. Estimates from manifests show much higher amounts. ALL Large quantity generator requirements are now manadatory (example 220 kilos in january) OBSERVATION: Facility failed to prepare an Contingency Plan. The owner or operator shall prepare an Emergency Response Plan designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned release of hazardous waste to air, soil, or surface water. CORRECTIVE ACTION: Immediately prepare an Contingency Plan and submit a copy to the CUPA.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Site ID: 426997
Site Name: BATH & BODY WORKS #2077
Violation Date: 06-11-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Returned to compliance on 07/19/2018. OBSERVATION: The business failed to complete and electronically submit chemical inventory information for all reportable hazardous materials on site at or above reportable quantities. site has two 55 gallon drums of waste (flammables and toxics) CORRECTIVE ACTION: Complete and electronically submit the chemical inventory information on CERS for all reportable hazardous materials on site at or above reportable quantities.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 426997
Site Name: BATH & BODY WORKS #2077
Violation Date: 06-11-2018
Citation: 22 CCR 15 66265.16 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.16
Violation Description: Failure to provide employees with hazardous waste training program of class room instructions or on-the-job training within the first six months after the date of their employment or assignment to a facility, or to a new position at a facility and annually thereafter. Training

BATH & BODY WORKS #2077 (Continued) **S121782685**

records on current personnel shall be kept until closure of the facility and for former employees the record shall be kept for at least three years from the date the employee last worked at the facility. The records shall include the following: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position, duties of facility personnel assigned to each position, and a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position.

Violation Notes: Returned to compliance on 07/19/2018. OBSERVATION: Owner/Operator failed to provide initial and/or annual refresher training for employees who manage or handle universal waste and to maintain a written record for three years of personnel who took the initial or annual training. (as large quantity generator) CORRECTIVE ACTION: Provide employees with initial or refresher UW training. Submit a evidence of training to the CUPA.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-11-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-11-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-06-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-11-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

BATH & BODY WORKS #2077 (Continued) **S121782685**

Eval General Type:	Other/Unknown
Eval Date:	08-06-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HMRRP
Eval Source:	CERS

Enforcement Action:

Site ID:	426997
Site Name:	BATH & BODY WORKS #2077
Site Address:	2505 SAND CREEK RD STE H-2
Site City:	BRENTWOOD
Site Zip:	94513
Enf Action Date:	06-11-2018
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	HMRRP
Enf Action Source:	CERS

Site ID:	426997
Site Name:	BATH & BODY WORKS #2077
Site Address:	2505 SAND CREEK RD STE H-2
Site City:	BRENTWOOD
Site Zip:	94513
Enf Action Date:	06-11-2018
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	HW
Enf Action Source:	CERS

Affiliation:

Affiliation Type Desc:	Environmental Contact
Entity Name:	Mike Ryan
Entity Title:	Not reported
Affiliation Address:	2 LIMITED PARKWAY
Affiliation City:	COLUMBUS
Affiliation State:	OH
Affiliation Country:	Not reported
Affiliation Zip:	43230
Affiliation Phone:	Not reported

Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200

BATH & BODY WORKS #2077 (Continued) **S121782685**

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2 LIMITED PARKWAY/ATTN: MIKE RYAN
Affiliation City:	COLUMBUS
Affiliation State:	OH
Affiliation Country:	Not reported
Affiliation Zip:	43230
Affiliation Phone:	Not reported

Affiliation Type Desc:	Document Preparer
Entity Name:	ASHLEY CAMPBELL
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Ashley Campbell
Entity Title:	COMPLIANCE & REGULATORY AFFAIRS SPEC
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Parent Corporation
Entity Name:	L Brands
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	Bath & Body Works, LLC
Entity Title:	Not reported
Affiliation Address:	7 LIMITED PARKWAY
Affiliation City:	REYNOLDSBURG
Affiliation State:	OH
Affiliation Country:	United States
Affiliation Zip:	43068
Affiliation Phone:	(614) 856-6000

Affiliation Type Desc:	Operator
Entity Name:	BATH & BODY WORKS #2077
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported

BATH & BODY WORKS #2077 (Continued) **S121782685**

Affiliation Zip: Not reported
Affiliation Phone: (925) 516-4352

B20 **BATH & BODY WORKS #2077** **RCRA NonGen / NLR** **1024859825**
East **2505 SAND CREEK RD SPACE H-2** **CAL000427473**
< 1/8 **BRENTWOOD, CA 94513**
0.123 mi.
651 ft. **Site 13 of 14 in cluster B**

Relative:
Lower

Actual:
130 ft.

RCRA NonGen / NLR:
Date form received by agency: 2017-05-08 00:00:00.0
Facility name: BATH & BODY WORKS #2077
Facility address: 2505 SAND CREEK RD SPACE H-2
BRENTWOOD, CA 94513
EPA ID: CAL000427473
Mailing address: 2 LIMITED PKWY
COLUMBUS, OH 43230
Contact: MIKE RYAN
Contact address: 2 LIMITED PKWY
COLUMBUS, OH 43230
Contact country: Not reported
Contact telephone: 614-415-1769
Contact email: MRYAN@LB.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: BATH & BODY WORKS LLC
Owner/operator address: 7 LIMITED PKWY
REYNOLDSBURG, OH 43068
Owner/operator country: Not reported
Owner/operator telephone: 614-856-6000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: MIKE RYAN
Owner/operator address: 2 LIMITED PKWY
COLUMBUS, OH 43230
Owner/operator country: Not reported
Owner/operator telephone: 614-415-1769
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No

BATH & BODY WORKS #2077 (Continued) **1024859825**

Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

B21 **HOLLISTER CO** **RCRA NonGen / NLR** **1024820379**
East **2505 SAND CREEK RD** **CAL000333470**
< 1/8 **BRENTWOOD, CA 94513**
0.123 mi.
651 ft. **Site 14 of 14 in cluster B**

Relative:
Lower

Actual:
130 ft.

RCRA NonGen / NLR:

Date form received by agency:	2008-06-09 00:00:00.0
Facility name:	HOLLISTER CO
Facility address:	2505 SAND CREEK RD BRENTWOOD, CA 94513
EPA ID:	CAL000333470
Mailing address:	6301 FITCH PATH NEW ALBANY, OH 43054-0000
Contact:	IAN KUPFERBERG
Contact address:	6301 FITCH PATH NEW ALBANY, OH 43054
Contact country:	Not reported
Contact telephone:	614-283-7930
Contact email:	IAN_KUPFERBERG@ANFCORP.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	IAN KUPFERBERG
Owner/operator address:	6301 FITCH PATH NEW ALBANY, OH 43054
Owner/operator country:	Not reported
Owner/operator telephone:	614-283-7930
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	ABERCROMBIE & FITCH CO & SUBSIDIAR
Owner/operator address:	6301 FITCH PATH NEW ALBANY, OH 43054

HOLLISTER CO (Continued) **1024820379**

Owner/operator country: Not reported
Owner/operator telephone: 614-283-6500
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

C22 **KELLY-MOORE PAINT CO INC** **RCRA NonGen / NLR** **1024820180**
East **2480 SAND CREEK RD** **CAL000332511**
1/8-1/4 **BRENTWOOD, CA 94513**
0.141 mi.
745 ft. **Site 1 of 18 in cluster C**

Relative: **Lower**

Actual: **128 ft.**

RCRA NonGen / NLR:
Date form received by agency: 2008-05-09 00:00:00.0
Facility name: KELLY-MOORE PAINT CO INC
Facility address: 2480 SAND CREEK RD
BRENTWOOD, CA 94513
EPA ID: CAL000332511
Mailing address: 987 COMMERCIAL ST
SAN CARLOS, CA 94070-4108
Contact: JANET BAILEY
Contact address: 987 COMMERCIAL ST
SAN CARLOS, CA 94070
Contact country: Not reported
Contact telephone: 650-610-4151
Contact email: JBAILEY@KELLYMOORE.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: JANET BAILEY
Owner/operator address: 987 COMMERCIAL ST
SAN CARLOS, CA 94070
Owner/operator country: Not reported

KELLY-MOORE PAINT CO INC (Continued) **1024820180**

Owner/operator telephone: 650-610-4151
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: KELLY-MOORE PAINT CO INC
Owner/operator address: 987 COMMERCIAL ST
SAN CARLOS, CA 94070
Owner/operator country: Not reported
Owner/operator telephone: 650-592-8337
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

C23 **KELLY-MOORE PAINT CO INC** **CERS HAZ WASTE** **S111160076**
East **2480 SAND CREEK RD** **HAZNET** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513** **CONTRA COSTA CO. SITE LIST**
0.141 mi. **CERS**
745 ft. **Site 2 of 18 in cluster C** **HWTS**

Relative:
Lower

Actual:
128 ft.

CERS HAZ WASTE:
Name: 620- KELLY MOORE PAINTS
Address: 2480 SAND CREEK RD
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 87480
CERS ID: 10464874
CERS Description: Hazardous Waste Generator

HAZNET:
Name: KELLY-MOORE PAINT CO INC
Address: 2480 SAND CREEK RD

KELLY-MOORE PAINT CO INC (Continued) **S111160076**

Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 94513
Contact:	JANET BAILEY
Telephone:	6506104151
Mailing Name:	Not reported
Mailing Address:	987 COMMERCIAL ST
Year:	2017
Gepaid:	CAL000332511
TSD EPA ID:	ARD981057870
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.225

Additional Info:

Year:	2017
Gen EPA ID:	CAL000332511
Shipment Date:	20170801
Creation Date:	7/20/2018 18:30:10
Receipt Date:	20170808
Manifest ID:	000176689DAT
Trans EPA ID:	CAR000179747
Trans Name:	INGENIUM (MILPITAS)
Trans 2 EPA ID:	CAD982523433
Trans 2 Name:	DILLARD ENVIRONMENTAL SERVICE
TSDF EPA ID:	ARD981057870
Trans Name:	RINECO
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.005
Waste Quantity:	10
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170801
Creation Date:	7/20/2018 18:30:10
Receipt Date:	20170808
Manifest ID:	000176689DAT
Trans EPA ID:	CAR000179747
Trans Name:	INGENIUM (MILPITAS)
Trans 2 EPA ID:	CAD982523433
Trans 2 Name:	DILLARD ENVIRONMENTAL SERVICE
TSDF EPA ID:	ARD981057870
Trans Name:	RINECO
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D005

KELLY-MOORE PAINT CO INC (Continued) **S111160076**

Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.04
Waste Quantity:	80
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170801
Creation Date:	11/1/2018 18:30:30
Receipt Date:	20170807
Manifest ID:	000176690DAT
Trans EPA ID:	CAR000179747
Trans Name:	INGENIUM (MILPITAS)
Trans 2 EPA ID:	CAD982523433
Trans 2 Name:	DILLARD ENVIRONMENTAL SERVICES
TSDF EPA ID:	INR000127621
Trans Name:	COVANTA ENVIRONMENTAL SOLUTIONS LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	291 - Latex waste
RCRA Code:	Not reported
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.02
Waste Quantity:	40
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170801
Creation Date:	7/20/2018 18:30:10
Receipt Date:	20170808
Manifest ID:	000176689DAT
Trans EPA ID:	CAR000179747
Trans Name:	INGENIUM (MILPITAS)
Trans 2 EPA ID:	CAD982523433
Trans 2 Name:	DILLARD ENVIRONMENTAL SERVICE
TSDF EPA ID:	ARD981057870
Trans Name:	RINECO
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D005
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.115
Waste Quantity:	230
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

KELLY-MOORE PAINT CO INC (Continued) **S111160076**

Shipment Date:	20170323
Creation Date:	5/11/2018 18:34:27
Receipt Date:	20170404
Manifest ID:	017088425JJK
Trans EPA ID:	CAR000179747
Trans Name:	INGENIUM (MILPITAS)
Trans 2 EPA ID:	CAD982523433
Trans 2 Name:	DILLARD ENVIRONMENTAL SERVICES
TSDF EPA ID:	ARD981057870
Trans Name:	RINECO
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.005
Waste Quantity:	10
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20170323
Creation Date:	5/11/2018 18:34:27
Receipt Date:	20170404
Manifest ID:	017088425JJK
Trans EPA ID:	CAR000179747
Trans Name:	INGENIUM (MILPITAS)
Trans 2 EPA ID:	CAD982523433
Trans 2 Name:	DILLARD ENVIRONMENTAL SERVICES
TSDF EPA ID:	ARD981057870
Trans Name:	RINECO
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.06
Waste Quantity:	120
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CONTRA COSTA CO. SITE LIST:

Name:	620- KELLY MOORE PAINTS
Address:	2480 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0031456
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP: 1K-10K LBS, 0-19 EMPLOYEES
Region:	CONTRA COSTA

KELLY-MOORE PAINT CO INC (Continued) **S111160076**

Cupa Number: 774341

Name: 620- KELLY MOORE PAINTS
Address: 2480 SAND CREEK RD
City: BRENTWOOD
Facility ID: FA0031456
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG: LESS THAN 5 TONS/YEAR
Region: CONTRA COSTA
Cupa Number: 774341

CERS:
Name: 620- KELLY MOORE PAINTS
Address: 2480 SAND CREEK RD
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 87480
CERS ID: 10464874
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 87480
Site Name: 620- Kelly Moore Paints
Violation Date: 06-24-2014
Citation: HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description: Haz Waste Generator Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 06/27/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 06-24-2014
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-18-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-18-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department

KELLY-MOORE PAINT CO INC (Continued) **S111160076**

Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 87480
Site Name: 620- Kelly Moore Paints
Site Address: 2480 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 06-24-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Coordinates:
Site ID: 87480
Facility Name: 620- Kelly Moore Paints
Env Int Type Code: HWG
Program ID: 10464874
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.943470
Longitude: -121.737070

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Contra Costa County Health Services Department
Entity Title: Not reported
Affiliation Address: 4585 Pacheco BlvdSuite 100
Affiliation City: Martinez
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94553
Affiliation Phone: (925) 335-3200

Affiliation Type Desc: Environmental Contact
Entity Name: Adam Gollihar
Entity Title: Not reported
Affiliation Address: 2480 San Creek Rd
Affiliation City: Brentwood
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94513
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: Att: Mary Logue 987 COMMERCIAL ST.
Affiliation City: SAN CARLOS
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94070

KELLY-MOORE PAINT CO INC (Continued) **S111160076**

Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	KELLY MOORE PAINT COMPANY, INC
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 592-8337
Affiliation Type Desc:	Parent Corporation
Entity Name:	0620 Kelly Moore Paint Company
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Document Preparer
Entity Name:	Jeff Martin
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Adam Gollihar
Entity Title:	STORE MANAGER
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Kelly Moore Paint Company
Entity Title:	Not reported
Affiliation Address:	987 COMMERCIAL ST.
Affiliation City:	SAN CARLOS
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94070
Affiliation Phone:	(650) 592-8337
Affiliation Type Desc:	Property Owner
Entity Name:	Sand Creek Crossing/Colliers Int.
Entity Title:	Not reported
Affiliation Address:	P.O. Box 844578
Affiliation City:	Los Angeles

KELLY-MOORE PAINT CO INC (Continued) **S111160076**

Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94506
Affiliation Phone:	(925) 279-0120

HWTS:

Name:	KELLY-MOORE PAINT CO INC
Address:	2480 SAND CREEK RD
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 94513
EPA ID:	CAL000332511
Inactive Date:	Not reported
Create Date:	05/09/2008
Last Act Date:	08/29/2019
Mailing Name:	Not reported
Mailing Address:	987 COMMERCIAL ST
Mailing Address 2:	Not reported
Mailing City,State,Zip:	SAN CARLOS, CA 940704108
Owner Name:	KELLY-MOORE PAINT CO INC
Owner Address:	987 COMMERCIAL ST
Owner Address 2:	Not reported
Owner City,State,Zip:	SAN CARLOS, CA 940704018
Contact Name:	JANET BAILEY
Contact Address:	987 COMMERCIAL ST
Contact Address 2:	Not reported
City,State,Zip:	SAN CARLOS, CA 94070

NAICS:

EPA ID:	CAL000332511
Create Date:	2008-05-20 13:37:23
NAICS Code:	44419
NAICS Description:	Other Building Material Dealers
Issued EPA ID Date:	2008-05-09 09:32:12
Inactive Date:	Not reported
Facility Name:	KELLY-MOORE PAINT CO INC
Facility Address:	2480 SAND CREEK RD
Facility Address 2:	Not reported
Facility City:	BRENTWOOD
Facility County:	07
Facility State:	CA
Facility Zip:	94513

EPA ID:	CAL000332511
Create Date:	2008-05-30 14:06:02
NAICS Code:	44412
NAICS Description:	Paint and Wallpaper Stores
Issued EPA ID Date:	2008-05-09 09:32:12
Inactive Date:	Not reported
Facility Name:	KELLY-MOORE PAINT CO INC
Facility Address:	2480 SAND CREEK RD
Facility Address 2:	Not reported
Facility City:	BRENTWOOD
Facility County:	07
Facility State:	CA
Facility Zip:	94513

C24
East
1/8-1/4
0.150 mi.
792 ft.

Relative:
Lower

Actual:
127 ft.

PARTY CITY #444 BRENTWOOD
2470 SAND CREEK RD
BRENTWOOD, CA 94513

Site 3 of 18 in cluster C

CERS HAZ WASTE
CHMIRS
HAZNET
CONTRA COSTA CO. SITE LIST
CERS
HWTS

S110419064
N/A

CERS HAZ WASTE:

Name:	PARTY CITY #444 BRENTWOOD
Address:	2470 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	372654
CERS ID:	10673806
CERS Description:	Hazardous Waste Generator

CHMIRS:

Name:	Not reported
Address:	2470 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA
OES Incident Number:	08-2547
OES notification:	04/03/2008
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Road
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1630
Year:	2008

PARTY CITY #444 BRENTWOOD (Continued) **S110419064**

Agency:	Contra Costa HAZMAT
Incident Date:	4/3/2008
Admin Agency:	Contra Costa County Health Services Dept.
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Muriatic acid
Quantity Released:	12
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Due to a fire in the back of a truck, chemical released. Clean up completed.

HAZNET:

Name:	PARTY CITY CORPORATION #444
Address:	2470 SAND CREEK RD
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 94513
Contact:	MARGARET CASTILLO
Telephone:	9734538600
Mailing Name:	Not reported
Mailing Address:	PO BOX 2513
Year:	2017
Gepaid:	CAL000417986
TSD EPA ID:	CAD008252405
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.005
Year:	2017
Gepaid:	CAL000417986
TSD EPA ID:	CAD008252405
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.005

Additional Info:

Year:	2017

PARTY CITY #444 BRENTWOOD (Continued) **S110419064**

Gen EPA ID:	CAL000417986
Shipment Date:	20170531
Creation Date:	7/11/2018 18:31:13
Receipt Date:	20170613
Manifest ID:	017051195JJK
Trans EPA ID:	CAR000245050
Trans Name:	ECOTRANS RECYCLING
Trans 2 EPA ID:	CAR000009910
Trans 2 Name:	CALIFORNIA ENVIRONMENTAL & LITHO
TSDF EPA ID:	CAD008252405
Trans Name:	PACIFIC RESOURCE RECOVERY SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.005
Waste Quantity:	10
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170201
Creation Date:	5/11/2018 18:31:59
Receipt Date:	20170208
Manifest ID:	016867118JJK
Trans EPA ID:	CAD028277036
Trans Name:	ASBURY ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008252405
Trans Name:	PACIFIC RESOURCE RECOVERY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170201
Creation Date:	5/11/2018 18:31:59
Receipt Date:	20170208
Manifest ID:	016867118JJK
Trans EPA ID:	CAD028277036
Trans Name:	ASBURY ENVIRONMENTAL SERVICES

PARTY CITY #444 BRENTWOOD (Continued) **S110419064**

Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008252405
Trans Name:	PACIFIC RESOURCE RECOVERY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CONTRA COSTA CO. SITE LIST:

Name:	PARTY CITY #444 BRENTWOOD
Address:	2470 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0038066
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP: LESS THAN 1000 LBS
Region:	CONTRA COSTA
Cupa Number:	775306

Name:	PARTY CITY #444 BRENTWOOD
Address:	2470 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0038066
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: LESS THAN 5 TONS/YEAR
Region:	CONTRA COSTA
Cupa Number:	775306

CERS:

Name:	PARTY CITY #444 BRENTWOOD
Address:	2470 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	372654
CERS ID:	10673806
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	372654
Site Name:	Party City #444 Brentwood
Violation Date:	08-22-2016
Citation:	HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description:	Business Plan Program - Training - General
Violation Notes:	Returned to compliance on 09/22/2016.
Violation Division:	Contra Costa County Health Services Department

PARTY CITY #444 BRENTWOOD (Continued) **S110419064**

Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	372654
Site Name:	Party City #444 Brentwood
Violation Date:	09-10-2019
Citation:	22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description:	Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.
Violation Notes:	OBSERVATION: Uniform Hazardous Waste Manifests for 2019, and possibly additional from 2018, were not available at the time of inspection. CORRECTIVE ACTION: Locate a copy of all manifests for 2018 and 2019 and submit copies to the CUPA.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS
Site ID:	372654
Site Name:	Party City #444 Brentwood
Violation Date:	08-22-2016
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Administration/Documentation - General
Violation Notes:	Returned to compliance on 09/22/2016.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS
Site ID:	372654
Site Name:	Party City #444 Brentwood
Violation Date:	09-10-2019
Citation:	HSC 6.5 25123.3(h) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)
Violation Description:	Failure to determine the status of any hazardous waste if a signed copy of the manifest isnG t received within 35 days of the date the waste was accepted by the initial transporter and/or to submit an Exception Report to DTSC if a signed copy of the manifest isnG t received within 60 days of the date the waste was accepted by the initial transporter.
Violation Notes:	OBSERVATION: The generator failed to file an exception report with the DTSC after not receiving a destination facility signed copy of the uniform hazardous waste manifest within 60 days of the waste shipment date. CORRECTIVE ACTION: Either locate a copy of the missing manifests or prepare and submit an exception report to DTSC (DTSC Report Repository; Generator Information Services Section; P.O. Box 806; Sacramento, CA 95812-0806). Submit copies to the CUPA.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection

PARTY CITY #444 BRENTWOOD (Continued) **S110419064**

Eval Date:	08-22-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	10-12-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	09-10-2019
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	09-10-2019
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-22-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	10-12-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Enforcement Action:

Site ID:	372654
Site Name:	Party City #444 Brentwood
Site Address:	2470 SAND CREEK RD

PARTY CITY #444 BRENTWOOD (Continued) **S110419064**

Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 08-22-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 372654
Site Name: Party City #444 Brentwood
Site Address: 2470 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 08-22-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 372654
Site Name: Party City #444 Brentwood
Site Address: 2470 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 09-10-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: Kimberly Philips
Entity Title: Not reported
Affiliation Address: 25 Green Pond Road, Suite #1
Affiliation City: Rockaway
Affiliation State: NJ
Affiliation Country: Not reported
Affiliation Zip: 07866
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Tyreen Torner
Entity Title: Attorney for Party City Corporation
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

PARTY CITY #444 BRENTWOOD (Continued) **S110419064**

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2470 Sand Creek Rd
Affiliation City:	Brentwood
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94513
Affiliation Phone:	Not reported

Affiliation Type Desc:	Operator
Entity Name:	Party City Corporation
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(973) 983-0888

Affiliation Type Desc:	Parent Corporation
Entity Name:	Party City Corporation
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200

Affiliation Type Desc:	Document Preparer
Entity Name:	Rosine Marschke
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	Party City Corporation
Entity Title:	Not reported
Affiliation Address:	25 Green Pond Road, Suite #1
Affiliation City:	Rockaway
Affiliation State:	NJ
Affiliation Country:	United States

PARTY CITY #444 BRENTWOOD (Continued) **S110419064**

Affiliation Zip: 07866
Affiliation Phone: (973) 983-0888

HWTS:
Name: PARTY CITY CORPORATION #444
Address: 2470 SAND CREEK RD
Address 2: Not reported
City,State,Zip: BRENTWOOD, CA 94513
EPA ID: CAL000417986
Inactive Date: Not reported
Create Date: 06/09/2016
Last Act Date: 08/13/2019
Mailing Name: Not reported
Mailing Address: PO BOX 2513
Mailing Address 2: Not reported
Mailing City,State,Zip: TRUCKEE, CA 961602513
Owner Name: PARTY CITY CORPORATION
Owner Address: 25 GREEN POND RD STE 1
Owner Address 2: Not reported
Owner City,State,Zip: ROCKAWAY, NJ 07866
Contact Name: KATINA BERRY
Contact Address: 25 GREEN POND RD STE 1
Contact Address 2: Not reported
City,State,Zip: ROCKAWAY, NJ 07866

NAICS:
EPA ID: CAL000417986
Create Date: 2016-06-09 15:19:30
NAICS Code: 45299
NAICS Description: All Other General Merchandise Stores
Issued EPA ID Date: 2016-06-09 15:19:30
Inactive Date: Not reported
Facility Name: PARTY CITY CORPORATION #444
Facility Address: 2470 SAND CREEK RD
Facility Address 2: Not reported
Facility City: BRENTWOOD
Facility County: 07
Facility State: CA
Facility Zip: 94513

C25 **PARTY CITY CORPORATION #444** **RCRA NonGen / NLR** **1024855421**
East **2470 SAND CREEK RD** **CAL000417986**
1/8-1/4 **BRENTWOOD, CA 94513**
0.150 mi.
792 ft. **Site 4 of 18 in cluster C**

Relative:
Lower

Actual:
127 ft.

RCRA NonGen / NLR:
Date form received by agency: 2016-06-09 00:00:00.0
Facility name: PARTY CITY CORPORATION #444
Facility address: 2470 SAND CREEK RD
BRENTWOOD, CA 94513
EPA ID: CAL000417986
Mailing address: PO BOX 2513
TRUCKEE, CA 96160-2513
Contact: MARGARET CASTILLO
Contact address: 25 GREEN POND RD STE 1

PARTY CITY CORPORATION #444 (Continued) **1024855421**

ROCKAWAY, NJ 07866
Contact country: Not reported
Contact telephone: 973-453-8600
Contact email: MCASTILLO@PARTYCITY.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: PARTY CITY CORPORATION
Owner/operator address: 25 GREEN POND RD STE 1
ROCKAWAY, NJ 07866
Owner/operator country: Not reported
Owner/operator telephone: 973-453-8600
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: MARGARET CASTILLO
Owner/operator address: 25 GREEN POND RD STE 1
ROCKAWAY, NJ 07866
Owner/operator country: Not reported
Owner/operator telephone: 973-453-8600
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

C26 **REI #126** **CONTRA COSTA CO. SITE LIST** **S113704569**
East **2475 S SAND CREEK RD 100** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.151 mi.
796 ft. **Site 5 of 18 in cluster C**

Relative:
Lower

Actual:
128 ft.

CONTRA COSTA CO. SITE LIST:

Name:	REI #126
Address:	2475 S SAND CREEK RD 100
City:	BRENTWOOD
Facility ID:	FA0034018
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: REPORTED ZERO
Region:	CONTRA COSTA
Cupa Number:	774632

C27 **HOMEGOODS 0237** **RCRA NonGen / NLR** **1024847099**
East **2460 SAND CREEK RD** **CAL000401789**
1/8-1/4 **BRENTWOOD, CA 94513**
0.159 mi.
840 ft. **Site 6 of 18 in cluster C**

Relative:
Lower

Actual:
127 ft.

RCRA NonGen / NLR:

Date form received by agency:	2014-11-04 00:00:00.0
Facility name:	HOMEGOODS 0237
Facility address:	2460 SAND CREEK RD BRENTWOOD, CA 94513
EPA ID:	CAL000401789
Mailing address:	770 COCHITUATE RD FRAMINGHAM, MA 01701
Contact:	PAUL KANGAS
Contact address:	770 COCHITUATE RD 300.1AN FRAMINGHAM, MA 01701
Contact country:	Not reported
Contact telephone:	774-308-3651
Contact email:	PAUL_KANGAS@TJX.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	HOMEGOODS INC
Owner/operator address:	770 COCHITUATE RD FRAMINGHAM, MA 01701
Owner/operator country:	Not reported
Owner/operator telephone:	774-308-3651
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	PAUL KANGAS
Owner/operator address:	770 COCHITUATE RD 300.1AN FRAMINGHAM, MA 01701
Owner/operator country:	Not reported

HOMEGOODS 0237 (Continued) **1024847099**

Owner/operator telephone:	774-308-3651
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

C28 **HOMEGOODS 0237** **CERS HAZ WASTE** **S117047861**
East **2460 SAND CREEK RD** **CONTRA COSTA CO. SITE LIST** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.159 mi.
840 ft. **Site 7 of 18 in cluster C**

Relative: **Lower**

Actual: **127 ft.**

CERS HAZ WASTE:

Name:	HOMEGOODS 0237
Address:	2460 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	123053
CERS ID:	10485823
CERS Description:	Hazardous Waste Generator

Violations:

Site ID:	123053
Site Name:	Homegoods 0237
Violation Date:	12-27-2013
Citation:	HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description:	Haz Waste Generator Program - Administration/Documentation - General
Violation Notes:	Returned to compliance on 01/24/2014.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Site ID:	123053
Site Name:	Homegoods 0237
Violation Date:	12-27-2013
Citation:	HSC 6.67 Multiple Sections - California Health and Safety Code, Chapter 6.67, Section(s) Multiple Sections

HOMEGOODS 0237 (Continued) **S117047861**

Violation Description: Haz Waste Generator Program - Training - General
Violation Notes: Returned to compliance on 01/24/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Site ID: 123053
Site Name: Homegoods 0237
Violation Date: 12-27-2013
Citation: HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description: Haz Waste Generator Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 03/19/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 05-01-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-05-2019
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-27-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-01-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-19-2014
Violations Found: No

HOMEGOODS 0237 (Continued) **S117047861**

Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Enforcement Action:

Site ID:	123053
Site Name:	Homegoods 0237
Site Address:	2460 SAND CREEK RD
Site City:	BRENTWOOD
Site Zip:	94513
Enf Action Date:	12-27-2013
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	HW
Enf Action Source:	CERS

Coordinates:

Site ID:	123053
Facility Name:	Homegoods 0237
Env Int Type Code:	HWG
Program ID:	10485823
Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	37.943470
Longitude:	-121.736870

Affiliation:

Affiliation Type Desc:	Document Preparer
Entity Name:	Susan Allen
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200

Affiliation Type Desc:	Legal Owner
Entity Name:	TJX Companies, Inc
Entity Title:	Not reported
Affiliation Address:	770 Cochituate Road
Affiliation City:	Framingham

HOMEGOODS 0237 (Continued) **S117047861**

Affiliation State:	MA
Affiliation Country:	United States
Affiliation Zip:	01701
Affiliation Phone:	(774) 308-3651
Affiliation Type Desc:	Operator
Entity Name:	Homegoods
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(774) 308-3651
Affiliation Type Desc:	Identification Signer
Entity Name:	Paul Kangas
Entity Title:	SVP, Chief Compliance Officer
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	The TJX Companies, Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Paul Kangas
Entity Title:	Not reported
Affiliation Address:	770 Cochituate Road 300.1AN
Affiliation City:	Framingham
Affiliation State:	MA
Affiliation Country:	Not reported
Affiliation Zip:	01701
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	770 Cochituate Road
Affiliation City:	Framingham
Affiliation State:	MA
Affiliation Country:	Not reported
Affiliation Zip:	01701
Affiliation Phone:	Not reported

HOMEGOODS 0237 (Continued) **S117047861**

CONTRA COSTA CO. SITE LIST:
Name: HOMEGOODS 0237
Address: 2460 SAND CREEK RD
City: BRENTWOOD
Facility ID: FA0035185
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG: LESS THAN 5 TONS/YEAR
Region: CONTRA COSTA
Cupa Number: 774814

C29 **ULTA BEAUTY 353** **RCRA NonGen / NLR** **1024840262**
East **2465 SAND CREEK RD** **CAL000388869**
1/8-1/4 **BRENTWOOD, CA 94513**
0.159 mi.
841 ft. **Site 8 of 18 in cluster C**

Relative:
Lower

Actual:
127 ft.

RCRA NonGen / NLR:
Date form received by agency: 2013-08-23 00:00:00.0
Facility name: ULTA BEAUTY 353
Facility address: 2465 SAND CREEK RD
BRENTWOOD, CA 94513
EPA ID: CAL000388869
Mailing address: 1000 REMINGTON BLVD, SUITE 120
ATTN: JEREMY HOJNICKI - OPERATIONS
BOLINGBROOK, IL 60440
Contact: JEREMY HOJNICKI
Contact address: 1000 REMINGTON BLVD STE 120
BOLINGBROOK, IL 60440
Contact country: Not reported
Contact telephone: 630-296-1552
Contact email: JHOJNICKI@ULTA.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: ULTA SALON COSMETICS & FRAGRANCE IN
Owner/operator address: 1000 REMINGTON BLVD SUITE 120
BOLINGBROOK, IL 60440
Owner/operator country: Not reported
Owner/operator telephone: 630-410-4800
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: JEREMY HOJNICKI
Owner/operator address: 1000 REMINGTON BLVD STE 120
BOLINGBROOK, IL 60440
Owner/operator country: Not reported
Owner/operator telephone: 630-296-1552
Owner/operator email: Not reported
Owner/operator fax: Not reported

ULTA BEAUTY 353 (Continued) **1024840262**

Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

C30 **ULTA BEAUTY 353** **CERS HAZ WASTE** **S117311600**
East **2465 SAND CREEK RD** **HAZNET** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513** **CONTRA COSTA CO. SITE LIST**
0.159 mi. **CERS**
841 ft. **Site 9 of 18 in cluster C** **HWTS**

Relative: CERS HAZ WASTE:
Lower Name: ULTA BEAUTY #353
Actual: Address: 2465 SAND CREEK RD
127 ft. City,State,Zip: BRENTWOOD, CA 94513
Site ID: 364135
CERS ID: 10657762
CERS Description: Hazardous Waste Generator

HAZNET:
Name: ULTA BEAUTY 353
Address: 2465 SAND CREEK RD
Address 2: Not reported
City,State,Zip: BRENTWOOD, CA 94513
Contact: JEREMY HOJNICKI
Telephone: 6302961552
Mailing Name: Not reported
Mailing Address: 1000 REMINGTON BLVD, SUITE 120

Year: 2017
Gepaid: CAL000388869
TSD EPA ID: CAD008364432
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.172

Year: 2017

ULTA BEAUTY 353 (Continued) **S117311600**

Gepaid:	CAL000388869
TSD EPA ID:	NVD980895338
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.322
Year:	2017
Gepaid:	CAL000388869
TSD EPA ID:	CAD980884183
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	1.269
Year:	2017
Gepaid:	CAL000388869
TSD EPA ID:	CAD980884183
CA Waste Code:	181 - Other inorganic solid waste
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0015
Year:	2016
Gepaid:	CAL000388869
TSD EPA ID:	CAD980884183
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	1.632
Year:	2016
Gepaid:	CAL000388869
TSD EPA ID:	CAD980884183
CA Waste Code:	181 - Other inorganic solid waste
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.016
Year:	2016
Gepaid:	CAL000388869
TSD EPA ID:	CAD980884183
CA Waste Code:	141 - Off-specification, aged or surplus inorganics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.009
Year:	2015
Gepaid:	CAL000388869
TSD EPA ID:	NVD980895338
CA Waste Code:	214 - Unspecified solvent mixture
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.024
Year:	2015
Gepaid:	CAL000388869

ULTA BEAUTY 353 (Continued) **S117311600**

TSD EPA ID: CAD980884183
CA Waste Code: 122 - Alkaline solution without metals pH >= 12.5
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.038

Year: 2015
Gepaid: CAL000388869
TSD EPA ID: CAD980884183
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.488

Click this hyperlink while viewing on your computer to access
19 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:
Year: 2017
Gen EPA ID: CAL000388869

Shipment Date: 20171222
Creation Date: 10/16/2018 18:31:51
Receipt Date: 20180118
Manifest ID: 008629089FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: CAR000175422
Trans 2 Name: WORLDWIDE RECOVERY SYSTEMS
TSDF EPA ID: AZR000515924
Trans Name: YUMA YES LLC
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
CA Waste Code: 331 - Off-specification, aged, or surplus organics
RCRA Code: Not reported
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons: 0.0795
Waste Quantity: 159
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20171222
Creation Date: 10/26/2018 18:30:27
Receipt Date: 20180116
Manifest ID: 008629088FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: NED986382133
Trans 2 Name: SMITH SYSTEMS TRANSPORTATION
TSDF EPA ID: NVD980895338
Trans Name: 21ST CENTURY EMN LLC

ULTA BEAUTY 353 (Continued) **S117311600**

TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.009
Waste Quantity:	18
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20171222
Creation Date:	10/16/2018 18:31:51
Receipt Date:	20180118
Manifest ID:	008629089FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000175422
Trans 2 Name:	WORLDWIDE RECOVERY SYSTEMS
TSDF EPA ID:	AZR000515924
Trans Name:	YUMA YES LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0765
Waste Quantity:	153
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20171222
Creation Date:	10/26/2018 18:30:27
Receipt Date:	20180116
Manifest ID:	008629088FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0005

ULTA BEAUTY 353 (Continued) **S117311600**

Waste Quantity:	1
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20171113
Creation Date:	6/13/2018 18:31:23
Receipt Date:	20171122
Manifest ID:	008629443FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.1355
Waste Quantity:	271
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20171113
Creation Date:	7/20/2018 18:30:15
Receipt Date:	20171206
Manifest ID:	008629444FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0035
Waste Quantity:	7
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Shipment Date:	20171113
Creation Date:	7/20/2018 18:30:15
Receipt Date:	20171206
Manifest ID:	008629444FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20171018
Creation Date:	11/8/2018 18:30:45
Receipt Date:	20171108
Manifest ID:	009149334FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.02
Waste Quantity:	40
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20171018
Creation Date:	6/13/2018 18:30:34
Receipt Date:	20171024
Manifest ID:	009149333FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.069
Waste Quantity:	138
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20171018
Creation Date:	6/13/2018 18:30:34
Receipt Date:	20171024
Manifest ID:	009149333FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.068
Waste Quantity:	136
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2015
Gen EPA ID:	CAL000388869

Shipment Date:	20151228
Creation Date:	9/26/2016 18:30:40
Receipt Date:	20160114
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC

ULTA BEAUTY 353 (Continued) **S117311600**

TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0125
Waste Quantity:	25
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151228
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.048
Waste Quantity:	96
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151228
Creation Date:	9/26/2016 18:30:40
Receipt Date:	20160114
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0005

ULTA BEAUTY 353 (Continued) **S117311600**

Waste Quantity:	1
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151228
Creation Date:	9/26/2016 18:30:40
Receipt Date:	20160114
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0015
Waste Quantity:	3
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151228
Creation Date:	9/26/2016 18:30:40
Receipt Date:	20160114
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.009
Waste Quantity:	18
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Shipment Date:	20151228
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.072
Waste Quantity:	144
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20151201
Creation Date:	3/2/2016 22:15:14
Receipt Date:	20151210
Manifest ID:	008675464FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.031
Waste Quantity:	62
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20151201
Creation Date:	3/2/2016 22:15:14
Receipt Date:	20151210
Manifest ID:	008675464FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617

ULTA BEAUTY 353 (Continued) **S117311600**

Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0205
Waste Quantity:	41
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151201
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	008675464FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.062
Waste Quantity:	124
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151201
Creation Date:	3/2/2016 22:15:14
Receipt Date:	20151210
Manifest ID:	008675464FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0405
Waste Quantity:	81
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2016
Gen EPA ID:	CAL000388869
Shipment Date:	20151228
Creation Date:	9/26/2016 18:30:40
Receipt Date:	20160114
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	U002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0125
Waste Quantity:	25
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151228
Creation Date:	9/26/2016 18:30:40
Receipt Date:	20160114
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.009

ULTA BEAUTY 353 (Continued) **S117311600**

Waste Quantity:	18
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151228
Creation Date:	9/26/2016 18:30:40
Receipt Date:	20160114
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0005
Waste Quantity:	1
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151228
Creation Date:	9/26/2016 18:30:40
Receipt Date:	20160114
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0015
Waste Quantity:	3
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Shipment Date:	20151228
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.072
Waste Quantity:	144
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20151228
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	006321587FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL OF CALIFORNIA
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	21ST CENTURY EMN LLC
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.048
Waste Quantity:	96
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20151201
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	008675464FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617

ULTA BEAUTY 353 (Continued) **S117311600**

Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.062
Waste Quantity:	124
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151201
Creation Date:	3/2/2016 22:15:14
Receipt Date:	20151210
Manifest ID:	008675464FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0405
Waste Quantity:	81
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151201
Creation Date:	3/2/2016 22:15:14
Receipt Date:	20151210
Manifest ID:	008675464FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002

ULTA BEAUTY 353 (Continued) **S117311600**

Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.038
Waste Quantity:	76
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151201
Creation Date:	3/2/2016 22:15:14
Receipt Date:	20151210
Manifest ID:	008675464FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	CAR000210617
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0205
Waste Quantity:	41
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2013
Gen EPA ID:	CAL000388869
Shipment Date:	20131219
Creation Date:	5/14/2014 22:14:54
Receipt Date:	20131227
Manifest ID:	000661397PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.008

ULTA BEAUTY 353 (Continued) **S117311600**

Waste Quantity:	16
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131219
Creation Date:	5/14/2014 22:14:54
Receipt Date:	20131227
Manifest ID:	000661397PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	214 - Unspecified solvent mixture
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0085
Waste Quantity:	17
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131219
Creation Date:	5/14/2014 22:14:54
Receipt Date:	20131227
Manifest ID:	000661397PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	352 - Other organic solids
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0765
Waste Quantity:	153
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Shipment Date:	20131121
Creation Date:	4/24/2014 22:15:08
Receipt Date:	20131204
Manifest ID:	000644758PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVD980895338
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.005
Waste Quantity:	10
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20131121
Creation Date:	4/24/2014 22:15:08
Receipt Date:	20131204
Manifest ID:	000644758PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVD980895338
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	214 - Unspecified solvent mixture
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0215
Waste Quantity:	43
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20131121
Creation Date:	4/24/2014 22:15:08
Receipt Date:	20131204
Manifest ID:	000644758PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVD980895338

ULTA BEAUTY 353 (Continued) **S117311600**

Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	352 - Other organic solids
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0805
Waste Quantity:	161
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131011
Creation Date:	3/12/2014 22:15:10
Receipt Date:	20131028
Manifest ID:	000616486PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVD980895338
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0145
Waste Quantity:	29
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131011
Creation Date:	3/12/2014 22:15:10
Receipt Date:	20131028
Manifest ID:	000616486PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVD980895338
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	214 - Unspecified solvent mixture
RCRA Code:	D001

ULTA BEAUTY 353 (Continued) **S117311600**

Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0115
Waste Quantity:	23
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131011
Creation Date:	3/12/2014 22:15:10
Receipt Date:	20131028
Manifest ID:	000616486PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVD980895338
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131011
Creation Date:	3/12/2014 22:15:10
Receipt Date:	20131028
Manifest ID:	000616486PSC
Trans EPA ID:	CAR000210617
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID:	NVD980895338
Trans 2 Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	352 - Other organic solids
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.183
Waste Quantity:	366
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2014
Gen EPA ID:	CAL000388869
Shipment Date:	20141216
Creation Date:	5/8/2015 22:15:06
Receipt Date:	20141222
Manifest ID:	006361831FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141216
Creation Date:	5/8/2015 22:15:06
Receipt Date:	20141222
Manifest ID:	006361831FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	214 - Unspecified solvent mixture
RCRA Code:	U002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.009
Waste Quantity:	18
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Shipment Date:	20141216
Creation Date:	5/8/2015 22:15:06
Receipt Date:	20141222
Manifest ID:	006361831FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0335
Waste Quantity:	67
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20141216
Creation Date:	5/8/2015 22:15:06
Receipt Date:	20141222
Manifest ID:	006361831FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.029
Waste Quantity:	58
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20141118
Creation Date:	1/15/2015 22:15:01
Receipt Date:	20141121
Manifest ID:	007228104FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.049
Waste Quantity:	98
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141118
Creation Date:	1/15/2015 22:15:01
Receipt Date:	20141121
Manifest ID:	007228104FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0085
Waste Quantity:	17
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141118
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	007228104FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.028
Waste Quantity:	56
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141118
Creation Date:	1/15/2015 22:15:01
Receipt Date:	20141121
Manifest ID:	007228104FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	214 - Unspecified solvent mixture
RCRA Code:	U002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.009
Waste Quantity:	18
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141118
Creation Date:	1/15/2015 22:15:01
Receipt Date:	20141121
Manifest ID:	007228104FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0075
Waste Quantity:	15
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported

ULTA BEAUTY 353 (Continued) **S117311600**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141024
Creation Date:	3/31/2015 22:15:05
Receipt Date:	20141103
Manifest ID:	006361706FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	214 - Unspecified solvent mixture
RCRA Code:	U002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0295
Waste Quantity:	59
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CONTRA COSTA CO. SITE LIST:

Name:	ULTA BEAUTY #353
Address:	2465 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0037657
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP: LESS THAN 1000 LBS
Region:	CONTRA COSTA
Cupa Number:	775219
Name:	ULTA BEAUTY #353
Address:	2465 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0037657
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: LESS THAN 5 TONS/YEAR
Region:	CONTRA COSTA
Cupa Number:	775219

CERS:

Name:	ULTA BEAUTY #353
Address:	2465 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	364135
CERS ID:	10657762

ULTA BEAUTY 353 (Continued) **S117311600**

CERS Description: Chemical Storage Facilities

Violations:

Site ID: 364135
Site Name: ULTA BEAUTY #353
Violation Date: 01-29-2019
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: Returned to compliance on 02/04/2019. OBSERVATION: The business failed to complete and electronically submit a site map with all required content including: north orientation, loading area, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shut offs, evacuation staging area, hazardous materials/waste storage areas and emergency response equipment. CORRECTIVE ACTION: Complete and electronically submit a site map with all required content.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 364135
Site Name: ULTA BEAUTY #353
Violation Date: 04-01-2019
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 04/09/2019. OBSERVATION: AS OF APRIL 1, 2019, CCHSHMP HAS NOT RECEIVED/ACCEPTED A COMPLETE AND CORRECT CALIFORNIA ENVIRONMENTAL REPORTING SYSTEM (CERS) SUBMITTAL FOR THE FOLLOWING SUBMITTAL ELEMENT(S): Emergency Response/Training Plans.CORRECTIVE ACTION: IMMEDIATELY LOG ONTO CERS (https://cers.calepa.ca.gov/) AND SUBMIT COMPLETE/CORRECT Emergency Response/Training Plans.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-29-2019
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-01-2019
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department

ULTA BEAUTY 353 (Continued) **S117311600**

Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-15-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-29-2019
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 02-05-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Enforcement Action:
Site ID: 364135
Site Name: ULTA BEAUTY #353
Site Address: 2465 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 01-29-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 364135
Site Name: ULTA BEAUTY #353
Site Address: 2465 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 04-01-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

ULTA BEAUTY 353 (Continued) **S117311600**

Coordinates:

Site ID:	364135
Facility Name:	ULTA BEAUTY #353
Env Int Type Code:	HWG
Program ID:	10657762
Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	37.943720
Longitude:	-121.738230

Affiliation:

Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200

Affiliation Type Desc:	Document Preparer
Entity Name:	Danielle Delise
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Environmental Contact
Entity Name:	Jeremy Hojnicki
Entity Title:	Not reported
Affiliation Address:	1000 Remington Boulevard, Suite 120
Affiliation City:	Bolingbrook
Affiliation State:	IL
Affiliation Country:	Not reported
Affiliation Zip:	60440
Affiliation Phone:	Not reported

Affiliation Type Desc:	Operator
Entity Name:	ULTA Beauty
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(630) 410-4800

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2465 Sand Creek Road
Affiliation City:	Brentwood

ULTA BEAUTY 353 (Continued) **S117311600**

Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94513
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Danielle Delise
Entity Title: Compliance Specialist
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: ULTA Beauty
Entity Title: Not reported
Affiliation Address: 1000 Remington Boulevard, Suite 120
Affiliation City: Bolingbrook
Affiliation State: IL
Affiliation Country: United States
Affiliation Zip: 60440
Affiliation Phone: (630) 410-4110

Affiliation Type Desc: Parent Corporation
Entity Name: ULTA Beauty
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

HWTS:
Name: ULTA BEAUTY 353
Address: 2465 SAND CREEK RD
Address 2: Not reported
City,State,Zip: BRENTWOOD, CA 94513
EPA ID: CAL000388869
Inactive Date: Not reported
Create Date: 08/23/2013
Last Act Date: 08/07/2019
Mailing Name: Not reported
Mailing Address: 1000 REMINGTON BLVD, SUITE 120
Mailing Address 2: ATTN: JEREMY HOJNICKI - EHS
Mailing City,State,Zip: BOLINGBROOK, IL 60440
Owner Name: ULTA SALON COSMETICS & FRAGRANCE IN
Owner Address: 1000 REMINGTON BLVD
Owner Address 2: SUITE 120
Owner City,State,Zip: BOLINGBROOK, IL 60440
Contact Name: JEREMY HOJNICKI
Contact Address: 1000 REMINGTON BLVD STE 120
Contact Address 2: Not reported
City,State,Zip: BOLINGBROOK, IL 60440

ULTA BEAUTY 353 (Continued) **S117311600**

NAICS:

EPA ID:	CAL000388869
Create Date:	2013-08-23 10:04:26
NAICS Code:	453998
NAICS Description:	All Other Miscellaneous Store Retailers (except Tobacco Stores)
Issued EPA ID Date:	2013-08-23 10:04:26
Inactive Date:	Not reported
Facility Name:	ULTA BEAUTY 353
Facility Address:	2465 SAND CREEK RD
Facility Address 2:	Not reported
Facility City:	BRENTWOOD
Facility County:	07
Facility State:	CA
Facility Zip:	94513

C31 **MAC 695434** **HAZNET** **S118119783**
East **2455 SAND CREEK RD STE 116** **NPDES** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513** **CONTRA COSTA CO. SITE LIST**
0.168 mi. **CIWQS**
888 ft. **Site 10 of 18 in cluster C** **HWTS**

Relative:
Lower

Actual:
127 ft.

HAZNET:

Name:	MAC 695434
Address:	2455 SAND CREEK RD STE 116
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 945137176
Contact:	JENNIFER VERRINE
Telephone:	6317525687
Mailing Name:	Not reported
Mailing Address:	155 PINELAWN RD. STE. 150N
Year:	2017
Gepaid:	CAR000264093
TSD EPA ID:	CAD008252405
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.297
Year:	2017
Gepaid:	CAR000264093
TSD EPA ID:	CAD008252405
CA Waste Code:	331 -
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.025

Additional Info:

Year:	2017
Gen EPA ID:	CAR000264093
Shipment Date:	20170224
Creation Date:	5/11/2018 18:33:05
Receipt Date:	20170302
Manifest ID:	015972552JJK
Trans EPA ID:	CAD982523433
Trans Name:	DILLARD ENVIRONMENTAL SERVICES #1715

MAC 695434 (Continued) **S118119783**

Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008252405
Trans Name:	PACIFIC RESOURCE RECOVERY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.198
Waste Quantity:	60
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20170216
Creation Date:	5/11/2018 18:34:48
Receipt Date:	20170227
Manifest ID:	016751517JJK
Trans EPA ID:	CAD982523433
Trans Name:	DILLARD ENVIRONMENTAL SERVICES #1715
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008252405
Trans Name:	PACIFIC RESOURCE RECOVERY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.099
Waste Quantity:	30
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20170105
Creation Date:	5/10/2018 18:30:29
Receipt Date:	20170118
Manifest ID:	016775999JJK
Trans EPA ID:	CAD028277036
Trans Name:	ASBURY ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008252405
Trans Name:	PACIFIC RESOURCE RECOVERY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site

MAC 695434 (Continued) **S118119783**

Quantity Tons:	0.025
Waste Quantity:	50
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

NPDES:

Name:	THE STREETS OF BRENTWOOD SPROUTS FARMERS MARKET
Address:	2455 SAND CREEK ROAD
City,State,Zip:	BRENTWOOD, CA 94513
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	5S07C373711
Regulatory Measure Type:	Construction
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Terminated
Status Date:	08/29/2016
Operator Name:	G&I VII Brentwood Operating LP
Operator Address:	220 East 42nd Street
Operator City:	New York
Operator State:	New York
Operator Zip:	10017

NPDES as of 03/2018:

NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	5S
Regulatory Measure ID:	459715
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	5S07C373711
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	08/29/2016
Discharge Name:	Not reported
Discharge Address:	Not reported

MAC 695434 (Continued) **S118119783**

Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	08/10/2015
Processed Date:	08/14/2015
Status:	Terminated
Status Date:	08/29/2016
Place Size:	2.9
Place Size Unit:	Acres
Contact:	Andrew Peltz
Contact Title:	Managing Director
Contact Phone:	925-516-8500
Contact Phone Ext:	Not reported
Contact Email:	kweidemann@legacydevelopment.com
Operator Name:	G&I VII Brentwood Operating LP
Operator Address:	220 East 42nd Street
Operator City:	New York
Operator State:	New York
Operator Zip:	10017
Operator Contact:	Andrew Peltz
Operator Contact Title:	Managing Director
Operator Contact Phone:	925-516-8500
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	kweidemann@legacydevelopment.com
Operator Type:	Private Business
Developer:	G&I VII Brentwood Operating LP
Developer Address:	220 East 42nd Street
Developer City:	New York
Developer State:	New York
Developer Zip:	10017
Developer Contact:	Andrew Peltz
Developer Contact Title:	Managing Director
Constype Linear Utility Ind:	N
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	N
Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commertial Ind:	N
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Not reported
Constype Other Ind:	N
Constype Recons Ind:	N
Constype Residential Ind:	N
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	N
Receiving Water Name:	Not reported
Certifier:	Andrew Peltz
Certifier Title:	Authorized Signatory
Certification Date:	10-AUG-15
Primary Sic:	Not reported

MAC 695434 (Continued) **S118119783**

Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	CAS000002
Status:	Terminated
Agency Number:	0
Region:	5S
Regulatory Measure ID:	459715
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	5S07C373711
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	08/14/2015
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	08/29/2016
Discharge Name:	G&I VII Brentwood Operating LP
Discharge Address:	220 East 42nd Street
Discharge City:	New York
Discharge State:	New York
Discharge Zip:	10017
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported

MAC 695434 (Continued) **S118119783**

Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

CONTRA COSTA CO. SITE LIST:

Name:	MAC 12000153
Address:	2455 SAND CREEK RD 116
City:	BRENTWOOD
Facility ID:	FA0038198
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: LESS THAN 5 TONS/YEAR
Region:	CONTRA COSTA
Cupa Number:	775321

CIWQS:

Name:	THE STREETS OF BRENTWOOD SPROUTS FARMERS MARKET
Address:	2455 SAND CREEK ROAD
City,State,Zip:	BRENTWOOD, CA 94513
Agency:	G&I VII Brentwood Operating LP
Agency Address:	220 East 42nd Street 27th Floor, New York, NY 10017
Place/Project Type:	Construction
SIC/NAICS:	Not reported
Region:	5S
Program:	CONSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water construction
Order Number:	2009-0009-DWQ
WDID:	5S07C373711
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	08/14/2015
Termination Date:	08/29/2016
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported

MAC 695434 (Continued) **S118119783**

TTWQ: Not reported
Enforcement Actions within 5 years: 0
Violations within 5 years: 0
Latitude: 37.944013
Longitude: -121.734728

HWTS:
Name: MAC 695434
Address: 2455 SAND CREEK RD STE 116
Address 2: Not reported
City,State,Zip: BRENTWOOD, CA 945137176
EPA ID: CAR000264093
Inactive Date: 06/30/2017
Create Date: 06/24/2016
Last Act Date: 10/17/2018
Mailing Name: KEVIN OKERSTROM
Mailing Address: 155 PINELAWN RD. STE. 150N
Mailing Address 2: Not reported
Mailing City,State,Zip: MELVILLE, NY 117470000
Owner Name: ESTEE LAUDER INC
Owner Address: 767 FIFTH AVE
Owner Address 2: Not reported
Owner City,State,Zip: NEW YORK, NY 10153
Contact Name: KEVIN OKERSTROM
Contact Address: 155 PINELAWN RD. STE. 150N
Contact Address 2: Not reported
City,State,Zip: MELVILLE, NY 117470000

NAICS:
EPA ID: CAR000264093
Create Date: 2016-06-24 10:07:29
NAICS Code: 44612
NAICS Description: Cosmetics, Beauty Supplies, and Perfume Stores
Issued EPA ID Date: 2016-06-24 10:07:29
Inactive Date: 2017-06-30 00:00:00
Facility Name: MAC 695434
Facility Address: 2455 SAND CREEK RD STE 116
Facility Address 2: Not reported
Facility City: BRENTWOOD
Facility County: 07
Facility State: CA
Facility Zip: 945137176

C32 **MAC 12000153** **CERS HAZ WASTE** **S121770331**
East **2455 SAND CREEK RD STE 116** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.168 mi.
888 ft. **Site 11 of 18 in cluster C**

Relative: **Lower**
Actual: **127 ft.**

CERS HAZ WASTE:
Name: MAC 12000153
Address: 2455 SAND CREEK RD STE 116
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 378744
CERS ID: 10675765
CERS Description: Hazardous Waste Generator

MAC 12000153 (Continued) **S121770331**

Violations:

Site ID:	378744
Site Name:	MAC 12000153
Violation Date:	08-23-2016
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Administration/Documentation - General
Violation Notes:	Returned to compliance on 09/22/2016.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-23-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	09-26-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-29-2019
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Enforcement Action:

Site ID:	378744
Site Name:	MAC 12000153
Site Address:	2455 SAND CREEK RD STE 116
Site City:	BRENTWOOD
Site Zip:	94513
Enf Action Date:	08-23-2016
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	HW
Enf Action Source:	CERS

MAC 12000153 (Continued) **S121770331**

Affiliation:

Affiliation Type Desc:	Document Preparer
Entity Name:	Jessica Otto, g2 revolution
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Environmental Contact
Entity Name:	Kevin Okerstrom
Entity Title:	Not reported
Affiliation Address:	155 Pinelawn Rd. Ste. 150N, EAS
Affiliation City:	Melville
Affiliation State:	NY
Affiliation Country:	Not reported
Affiliation Zip:	11747
Affiliation Phone:	Not reported

Affiliation Type Desc:	Parent Corporation
Entity Name:	Estee Lauder, Inc.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Jessica Otto
Entity Title:	Environmental Specialist, g2 revolution
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	Estee Lauder, Inc.
Entity Title:	Not reported
Affiliation Address:	767 Fifth Ave.
Affiliation City:	New York
Affiliation State:	NY
Affiliation Country:	United States
Affiliation Zip:	10153
Affiliation Phone:	(212) 572-4200

Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA

MAC 12000153 (Continued) **S121770331**

Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	155 Pinelawn Rd. Ste. 150N, EAS
Affiliation City:	Melville
Affiliation State:	NY
Affiliation Country:	Not reported
Affiliation Zip:	11747
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	MAC 12000153
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(925) 756-1307

C33 **MAC 695434** **RCRA NonGen / NLR** **1019327200**
East **2455 SANDCREEK RD SPC 116** **CAR000264093**
1/8-1/4 **BRENTWOOD, CA 94513**
0.168 mi.
888 ft. **Site 12 of 18 in cluster C**

Relative:
Lower

Actual:
127 ft.

RCRA NonGen / NLR:

Date form received by agency:	2017-05-31 00:00:00.0
Facility name:	MAC 695434
Facility address:	2455 SANDCREEK RD SPC 116 BRENTWOOD, CA 94513
EPA ID:	CAR000264093
Mailing address:	PYOTT RD STE 100 LAKE IN THE HILLS, IL 60156
Contact:	JESSICA A OTTO
Contact address:	PYOTT RD STE 100 LAKE IN THE HILLS, IL 60156
Contact country:	US
Contact telephone:	815-862-3501
Contact email:	JESSICA.OTTO@G2REV.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	ESTEE LAUDER INC
Owner/operator address:	FIFTH AVE NEW YORK, NY 10153
Owner/operator country:	US
Owner/operator telephone:	212-572-4200
Owner/operator email:	Not reported
Owner/operator fax:	Not reported

MAC 695434 (Continued) **1019327200**

Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 2016-07-01 00:00:00.
Owner/Op end date: Not reported

Owner/operator name: ESTEE LAUDER INC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 2016-07-01 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 2016-06-17 00:00:00.0
Site name: MAC 695434
Classification: Small Quantity Generator

Hazardous Waste Summary:

. Waste code: 352
. Waste name: Other organic solids

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

C34 **MAC 12000153** **RCRA NonGen / NLR** **1024858171**
East **2455 SANDCREEK** **CAL000423933**
1/8-1/4 **BRENTWOOD, CA 94513**
0.168 mi.
888 ft. **Site 13 of 18 in cluster C**

Relative:
Lower

Actual:
127 ft.

RCRA NonGen / NLR:

Date form received by agency:	2017-01-05 00:00:00.0
Facility name:	MAC 12000153
Facility address:	2455 SANDCREEK BRENTWOOD, CA 94513
EPA ID:	CAL000423933
Mailing address:	155 PINELAWN RD. STE. 150N MELVILLE, NY 11747-0000
Contact:	JENNIFER VERRINE
Contact address:	155 PINELAWN RD. STE. 150N MELVILLE, NY 11747-0000
Contact country:	Not reported
Contact telephone:	631-752-5687
Contact email:	JVERRINE@ESTEE.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	ESTEE LAUDER INC
Owner/operator address:	767 FIFTH AVE NEW YORK, NY 10153
Owner/operator country:	Not reported
Owner/operator telephone:	212-572-4200
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	JENNIFER VERRINE
Owner/operator address:	155 PINELAWN RD. STE. 150N MELVILLE, NY 11747
Owner/operator country:	Not reported
Owner/operator telephone:	631-752-5687
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No

MAC 12000153 (Continued) **1024858171**

On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

C35 **TJ MAXX 0858** **CERS HAZ WASTE** **S117047865**
East **2450 SAND CREEK RD** **HAZNET** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513** **CONTRA COSTA CO. SITE LIST**
0.168 mi. **HWTS**
888 ft. **Site 14 of 18 in cluster C**

Relative: **Lower**
Actual: **127 ft.**

CERS HAZ WASTE:

Name:	TJ MAXX 0858
Address:	2450 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	162464
CERS ID:	10488049
CERS Description:	Hazardous Waste Generator

Violations:

Site ID:	162464
Site Name:	TJ Maxx 0858
Violation Date:	12-27-2013
Citation:	HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description:	Haz Waste Generator Program - Administration/Documentation - General
Violation Notes:	Returned to compliance on 03/19/2014.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HW
Violation Source:	CERS

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	03-19-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-22-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Contra Costa County Health Services Department
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	09-05-2019

TJ MAXX 0858 (Continued) **S117047865**

Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-27-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 162464
Site Name: TJ Maxx 0858
Site Address: 2450 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 12-27-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Coordinates:
Site ID: 162464
Facility Name: TJ Maxx 0858
Env Int Type Code: HWG
Program ID: 10488049
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.943470
Longitude: -121.736770

Affiliation:
Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 770 Cochituate Road
Affiliation City: Framingham
Affiliation State: MA
Affiliation Country: Not reported
Affiliation Zip: 01701
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Paul Kangas
Entity Title: SVP, Chief Compliance Officer
Affiliation Address: Not reported
Affiliation City: Not reported

TJ MAXX 0858 (Continued) **S117047865**

Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	TJ Maxx
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(774) 308-3651
Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200
Affiliation Type Desc:	Legal Owner
Entity Name:	TJX Companies, Inc
Entity Title:	Not reported
Affiliation Address:	770 Cochituate Road
Affiliation City:	Framingham
Affiliation State:	MA
Affiliation Country:	United States
Affiliation Zip:	01701
Affiliation Phone:	(774) 308-3651
Affiliation Type Desc:	Document Preparer
Entity Name:	Susan Allen
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Paul Kangas
Entity Title:	Not reported
Affiliation Address:	770 Cochituate Road 300.1AN
Affiliation City:	Framingham
Affiliation State:	MA
Affiliation Country:	Not reported
Affiliation Zip:	01701
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	The TJX Companies, Inc.

TJ MAXX 0858 (Continued) **S117047865**

Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

HAZNET:

Name:	TJ MAXX 0858
Address:	2450 SAND CREEK RD
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 94513
Contact:	PAUL KANGAS
Telephone:	7743083651
Mailing Name:	Not reported
Mailing Address:	770 COCHITUATE RD
Year:	2017
Gepaid:	CAL000383025
TSD EPA ID:	CAD980884183
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0305
Year:	2016
Gepaid:	CAL000383025
TSD EPA ID:	CAD980884183
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0395
Year:	2016
Gepaid:	CAL000383025
TSD EPA ID:	CAD980884183
CA Waste Code:	-
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0625
Year:	2015
Gepaid:	CAL000383025
TSD EPA ID:	NVD980895338
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.047
Year:	2015
Gepaid:	CAL000383025
TSD EPA ID:	CAD980884183
CA Waste Code:	181 - Other inorganic solid waste
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

TJ MAXX 0858 (Continued) **S117047865**

Tons:	0.07
Year:	2015
Gepaid:	CAL000383025
TSD EPA ID:	CAD980884183
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0685
Year:	2015
Gepaid:	CAL000383025
TSD EPA ID:	NVD980895338
CA Waste Code:	122 - Alkaline solution without metals pH >= 12.5
Disposal Method:	H121 - Neutralization Only
Tons:	0.003
Year:	2014
Gepaid:	CAL000383025
TSD EPA ID:	INR000110197
CA Waste Code:	122 - Alkaline solution without metals pH >= 12.5
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0025
Year:	2014
Gepaid:	CAL000383025
TSD EPA ID:	INR000110197
CA Waste Code:	-
Disposal Method:	-
Tons:	0.028
Year:	2014
Gepaid:	CAL000383025
TSD EPA ID:	INR000110197
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0055

Click this hyperlink while viewing on your computer to access
2 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:

Year:	2017
Gen EPA ID:	CAL000383025
Shipment Date:	20170504
Creation Date:	5/16/2018 18:30:21
Receipt Date:	20170517
Manifest ID:	010169099FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183

TJ MAXX 0858 (Continued) **S117047865**

Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D035
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0275
Waste Quantity:	55
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170504
Creation Date:	5/16/2018 18:30:21
Receipt Date:	20170517
Manifest ID:	010169099FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2014
Gen EPA ID:	CAL000383025
Shipment Date:	20141208
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	006361811FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported

TJ MAXX 0858 (Continued) **S117047865**

CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0205
Waste Quantity:	41
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141208
Creation Date:	6/25/2015 22:16:11
Receipt Date:	20141216
Manifest ID:	006361811FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	- Not reported
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141208
Creation Date:	6/25/2015 22:16:11
Receipt Date:	20141216
Manifest ID:	006361811FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Disposal Method:	H121 - Neutralization Only
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	Not reported

TJ MAXX 0858 (Continued) **S117047865**

Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141208
Creation Date:	6/25/2015 22:16:11
Receipt Date:	20141216
Manifest ID:	006361811FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D035
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0075
Waste Quantity:	15
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141208
Creation Date:	6/25/2015 22:16:11
Receipt Date:	20141216
Manifest ID:	006361811FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20141208
Creation Date:	Not reported

TJ MAXX 0858 (Continued) **S117047865**

Receipt Date:	Not reported
Manifest ID:	006361811FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.002
Waste Quantity:	4
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20140611
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	006362368FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	- Not reported
Quantity Tons:	0.0085
Waste Quantity:	17
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20140611
Creation Date:	11/12/2014 22:15:05
Receipt Date:	20140702
Manifest ID:	006362368FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC

TJ MAXX 0858 (Continued) **S117047865**

TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	- Not reported
RCRA Code:	Not reported
Disposal Method:	- Not reported
Quantity Tons:	0.028
Waste Quantity:	56
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20140611
Creation Date:	11/12/2014 22:15:05
Receipt Date:	20140702
Manifest ID:	006362368FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0025
Waste Quantity:	5
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20140611
Creation Date:	11/12/2014 22:15:05
Receipt Date:	20140702
Manifest ID:	006362368FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D035
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0035
Waste Quantity:	7

TJ MAXX 0858 (Continued) **S117047865**

Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2015
Gen EPA ID:	CAL000383025
Shipment Date:	20151123
Creation Date:	1/21/2016 22:16:05
Receipt Date:	20151125
Manifest ID:	008675435FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D035
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.055
Waste Quantity:	110
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151123
Creation Date:	1/21/2016 22:16:05
Receipt Date:	20151125
Manifest ID:	008675435FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.07
Waste Quantity:	140
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported

TJ MAXX 0858 (Continued) **S117047865**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151123
Creation Date:	1/21/2016 22:16:05
Receipt Date:	20151125
Manifest ID:	008675435FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0135
Waste Quantity:	27
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150602
Creation Date:	1/20/2016 22:15:20
Receipt Date:	20150612
Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0075
Waste Quantity:	15
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150602
Creation Date:	1/20/2016 22:15:20
Receipt Date:	20150612

TJ MAXX 0858 (Continued) **S117047865**

Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Disposal Method:	H121 - Neutralization Only
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150602
Creation Date:	1/20/2016 22:15:20
Receipt Date:	20150612
Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D035
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.013
Waste Quantity:	26
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150602
Creation Date:	1/20/2016 22:15:20
Receipt Date:	20150612
Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported

TJ MAXX 0858 (Continued) **S117047865**

TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0265
Waste Quantity:	53
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150602
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.055
Waste Quantity:	110
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2013
Gen EPA ID:	CAL000383025
Shipment Date:	20131227
Creation Date:	5/17/2014 22:15:09
Receipt Date:	20140113
Manifest ID:	005507937FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001

TJ MAXX 0858 (Continued) **S117047865**

Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.002
Waste Quantity:	4
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131227
Creation Date:	5/17/2014 22:15:09
Receipt Date:	20140113
Manifest ID:	005507937FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	- Not reported
RCRA Code:	Not reported
Disposal Method:	- Not reported
Quantity Tons:	0.029
Waste Quantity:	58
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20131227
Creation Date:	5/17/2014 22:15:09
Receipt Date:	20140113
Manifest ID:	005507937FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D035
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0135
Waste Quantity:	27
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported

TJ MAXX 0858 (Continued) **S117047865**

Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2016
Gen EPA ID:	CAL000383025
Shipment Date:	20151123
Creation Date:	1/21/2016 22:16:05
Receipt Date:	20151125
Manifest ID:	008675435FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D035
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.055
Waste Quantity:	110
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20151123
Creation Date:	1/21/2016 22:16:05
Receipt Date:	20151125
Manifest ID:	008675435FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.07
Waste Quantity:	140
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

TJ MAXX 0858 (Continued) **S117047865**

Shipment Date:	20151123
Creation Date:	1/21/2016 22:16:05
Receipt Date:	20151125
Manifest ID:	008675435FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980884183
Trans Name:	GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0135
Waste Quantity:	27
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20150602
Creation Date:	1/20/2016 22:15:20
Receipt Date:	20150612
Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0075
Waste Quantity:	15
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20150602
Creation Date:	1/20/2016 22:15:20
Receipt Date:	20150612
Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133

TJ MAXX 0858 (Continued) **S117047865**

Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Disposal Method:	H121 - Neutralization Only
Quantity Tons:	0.003
Waste Quantity:	6
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150602
Creation Date:	1/20/2016 22:15:20
Receipt Date:	20150612
Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D035
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.013
Waste Quantity:	26
Quantity Unit:	P
Additional Code 1:	D001
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150602
Creation Date:	1/20/2016 22:15:20
Receipt Date:	20150612
Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No

TJ MAXX 0858 (Continued) **S117047865**

	Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0265
Waste Quantity:	53
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150602
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	006321204FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	NED986382133
Trans 2 Name:	SMITH SYSTEMS TRANSPORTATION INC
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMN LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
CA Waste Code:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.055
Waste Quantity:	110
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CONTRA COSTA CO. SITE LIST:

Name:	TJ MAXX 0858
Address:	2450 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0035255
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: LESS THAN 5 TONS/YEAR
Region:	CONTRA COSTA
Cupa Number:	774825

HWTS:

Name:	TJ MAXX 0858
Address:	2450 SAND CREEK RD
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 94513
EPA ID:	CAL000383025
Inactive Date:	Not reported
Create Date:	03/01/2013
Last Act Date:	09/05/2019
Mailing Name:	Not reported

TJ MAXX 0858 (Continued) **S117047865**

Mailing Address:	770 COCHITUATE RD
Mailing Address 2:	300.1AN
Mailing City,State,Zip:	FRAMINGHAM, MA 01701
Owner Name:	TJ MAXX OF CA LLC
Owner Address:	770 COCHITUATE RD
Owner Address 2:	Not reported
Owner City,State,Zip:	FRAMINGHAM, MA 01701
Contact Name:	PAUL KANGAS
Contact Address:	770 COCHITUATE RD
Contact Address 2:	300.1AN
City,State,Zip:	FRAMINGHAM, MA 01701

NAICS:

EPA ID:	CAL000383025
Create Date:	2013-03-01 11:47:36
NAICS Code:	44814
NAICS Description:	Family Clothing Stores
Issued EPA ID Date:	2013-03-01 11:47:36
Inactive Date:	Not reported
Facility Name:	TJ MAXX 0858
Facility Address:	2450 SAND CREEK RD
Facility Address 2:	Not reported
Facility City:	BRENTWOOD
Facility County:	07
Facility State:	CA
Facility Zip:	94513

C36 **TJ MAXX 0858** **RCRA NonGen / NLR** **1024837513**
East **2450 SAND CREEK RD** **CAL000383025**
1/8-1/4 **BRENTWOOD, CA 94513**
0.168 mi.
888 ft. **Site 15 of 18 in cluster C**

Relative:
Lower

Actual:
127 ft.

RCRA NonGen / NLR:

Date form received by agency:	2013-03-01 00:00:00.0
Facility name:	TJ MAXX 0858
Facility address:	2450 SAND CREEK RD BRENTWOOD, CA 94513
EPA ID:	CAL000383025
Mailing address:	770 COCHITUATE RD 300.1AN FRAMINGHAM, MA 01701
Contact:	PAUL KANGAS
Contact address:	770 COCHITUATE RD 300.1AN FRAMINGHAM, MA 01701
Contact country:	Not reported
Contact telephone:	774-308-3651
Contact email:	PAUL_KANGAS@TJX.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	TJ MAXX OF CA LLC
Owner/operator address:	770 COCHITUATE RD FRAMINGHAM, MA 01701
Owner/operator country:	Not reported

TJ MAXX 0858 (Continued) **1024837513**

Owner/operator telephone:	774-308-3651
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	PAUL KANGAS
Owner/operator address:	770 COCHITUATE RD 300.1AN FRAMINGHAM, MA 01701
Owner/operator country:	Not reported
Owner/operator telephone:	774-308-3651
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

D37 **SHELL PURCHASE** **HIST UST** **U001598270**
NE **SAND CREEK ROAD** **EMI** **N/A**
1/8-1/4 **BRENTWOOD, CA 94573** **CERS**
0.173 mi.
912 ft. **Site 1 of 2 in cluster D**

Relative: **Lower**
Actual: **131 ft.**

HIST UST:

Name:	SHELL PURCHASE
Address:	SAND CREEK ROAD
City,State,Zip:	BRENTWOOD, CA 94573
File Number:	00022DAB
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00022DAB.pdf
Region:	STATE
Facility ID:	00000024874
Facility Type:	Other
Other Type:	UTILITY
Contact Name:	Not reported

SHELL PURCHASE (Continued) **U001598270**

Telephone:	4157571607
Owner Name:	PACIFIC GAS & ELECTRIC CO.
Owner Address:	77 BEALE ST.
Owner City,St,Zip:	SAN FRANCISCO, CA 94106
Total Tanks:	0001

Tank Num:	001
Container Num:	A-1
Year Installed:	1980
Tank Capacity:	00000050
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Visual

Click here for Geo Tracker PDF:

EMI:

Name:	PRODUCTION SPECIALTIES COMPANY
Address:	SAND CREEK ROAD
City,State,Zip:	BRENTWOOD, CA 94573
Year:	2001
County Code:	7
Air Basin:	SF
Facility ID:	12941
Air District Name:	BA
SIC Code:	1381
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	PRODUCTION SPECIALTIES COMPANY
Address:	SAND CREEK ROAD
City,State,Zip:	BRENTWOOD, CA 94573
Year:	2002
County Code:	7
Air Basin:	SF
Facility ID:	12941
Air District Name:	BA
SIC Code:	1381
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

SHELL PURCHASE (Continued) **U001598270**

Name:	PRODUCTION SPECIALTIES COMPANY
Address:	SAND CREEK ROAD
City,State,Zip:	BRENTWOOD, CA 94573
Year:	2003
County Code:	7
Air Basin:	SF
Facility ID:	12941
Air District Name:	BA
SIC Code:	1381
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	PRODUCTION SPECIALTIES COMPANY
Address:	SAND CREEK ROAD
City,State,Zip:	BRENTWOOD, CA 94573
Year:	2004
County Code:	7
Air Basin:	SF
Facility ID:	12941
Air District Name:	BA
SIC Code:	1381
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.539
Reactive Organic Gases Tons/Yr:	0.4566408
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	PRODUCTION SPECIALTIES COMPANY
Address:	SAND CREEK ROAD
City,State,Zip:	BRENTWOOD, CA 94573
Year:	2005
County Code:	7
Air Basin:	SF
Facility ID:	12941
Air District Name:	BA
SIC Code:	1381
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.539
Reactive Organic Gases Tons/Yr:	.4566408
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0

SHELL PURCHASE (Continued) **U001598270**

Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

Name: PRODUCTION SPECIALTIES COMPANY
Address: SAND CREEK ROAD
City,State,Zip: BRENTWOOD, CA 94573
Year: 2006
County Code: 7
Air Basin: SF
Facility ID: 12941
Air District Name: BA
SIC Code: 1381
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .539
Reactive Organic Gases Tons/Yr: .4566408
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

CERS:
Name: PRODUCTION SPECIALTIES COMPANY
Address: SAND CREEK ROAD
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 488243
CERS ID: 110021340716
CERS Description: US EPA Air Emission Inventory System (EIS)

C38 **COSMOPROF BEAUTY** **RCRA NonGen / NLR** **1024861257**
East **2440 SAND CREEK RD STE E 2** **CAL000429726**
1/8-1/4 **BRENTWOOD, CA 94513**
0.177 mi.
936 ft. **Site 16 of 18 in cluster C**

Relative:
Lower

Actual:
127 ft.

RCRA NonGen / NLR:
Date form received by agency: 2017-08-01 00:00:00.0
Facility name: COSMOPROF BEAUTY
Facility address: 2440 SAND CREEK RD STE E 2
BRENTWOOD, CA 94513
EPA ID: CAL000429726
Contact: RANDY GOSS
Contact address: 3001 COLORADO BLVD
DENTON, TX 76210
Contact country: Not reported
Contact telephone: 940-898-7500
Contact email: RGOSS@SALLYBEAUTY.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: RANDY GOSS
Owner/operator address: 3001 COLORADO BLVD
DENTON, TX 76210

COSMOPROF BEAUTY (Continued) **1024861257**

Owner/operator country: Not reported
Owner/operator telephone: 940-898-7500
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: SALLY BEAUTY HOLDING LLC
Owner/operator address: 3001 COLORADO BLVD
DENTON, TX 76210
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

C39 **COSMOPROF BEAUTY** **CONTRA COSTA CO. SITE LIST** **S121312173**
East **2440 SAND CREEK RD E-2** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.177 mi.
936 ft. **Site 17 of 18 in cluster C**

Relative: **Lower**
Actual: **127 ft.**

CONTRA COSTA CO. SITE LIST:
Name: COSMOPROF BEAUTY
Address: 2440 SAND CREEK RD E-2
City: BRENTWOOD
Facility ID: FA0039778
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG: LESS THAN 5 TONS/YEAR
Region: CONTRA COSTA
Cupa Number: 775486

C40 **COSMOPROF BEAUTY** **CERS HAZ WASTE** **S121782223**
East **2440 SAND CREEK RD STE E-2** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.177 mi.
936 ft. **Site 18 of 18 in cluster C**

Relative:
Lower

Actual:
127 ft.

CERS HAZ WASTE:
Name: COSMOPROF BEAUTY
Address: 2440 SAND CREEK RD STE E-2
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 425662
CERS ID: 10743040
CERS Description: Hazardous Waste Generator

Violations:
Site ID: 425662
Site Name: COSMOPROF BEAUTY
Violation Date: 06-11-2018
Citation: HSC 6.5 25160.2 - California Health and Safety Code, Chapter 6.5, Section(s) 25160.2
Violation Description: Failure of a generator of hazardous waste that meets the conditions to be transported on a consolidated manifest to comply with one or more of the required consolidated manifesting procedures and retain copies of receipts for three years.
Violation Notes: Returned to compliance on 10/03/2018. OBSERVATION: Uniform Hazardous Waste Manifests with designated facility signature for manifest # 017367401 were not available at the time of inspection. CORRECTIVE ACTION: Locate a copy and submit copies to the CUPA via fax or email by 7/11/18
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 03-27-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-11-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-11-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW

COSMOPROF BEAUTY (Continued) **S121782223**

Eval Source: CERS

Enforcement Action:
Site ID: 425662
Site Name: COSMOPROF BEAUTY
Site Address: 2440 SAND CREEK RD STE E-2
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 03-27-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: UNSPEC
Enf Action Source: CERS

Site ID: 425662
Site Name: COSMOPROF BEAUTY
Site Address: 2440 SAND CREEK RD STE E-2
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 06-11-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Affiliation:
Affiliation Type Desc: Document Preparer
Entity Name: Larry Burton
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: Contra Costa County Health Services Department
Entity Title: Not reported
Affiliation Address: 4585 Pacheco BlvdSuite 100
Affiliation City: Martinez
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94553
Affiliation Phone: (925) 335-3200

Affiliation Type Desc: Environmental Contact
Entity Name: Randy Goss
Entity Title: Not reported
Affiliation Address: 3001 COLORADO BLVD
Affiliation City: DENTON
Affiliation State: TX

COSMOPROF BEAUTY (Continued) **S121782223**

Affiliation Country:	Not reported
Affiliation Zip:	76210
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Larry Burton
Entity Title:	Director, Temarry Recycling, Inc
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	Sally Beauty Holding LLC
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(940) 898-7500
Affiliation Type Desc:	Parent Corporation
Entity Name:	Sally Beauty Holding LLC
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Property Owner
Entity Name:	Sally Beauty Holding LLC
Entity Title:	Not reported
Affiliation Address:	2440 Sand Creek Rd Ste E-2
Affiliation City:	Brentwood
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94513
Affiliation Phone:	(925) 516-6987
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2440 Sand Creek Rd Ste E-2
Affiliation City:	Brentwood
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94513
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Sally Beauty Holding LLC
Entity Title:	Not reported

COSMOPROF BEAUTY (Continued) **S121782223**

Affiliation Address:	3001 COLORADO BLVD
Affiliation City:	DENTON
Affiliation State:	TX
Affiliation Country:	United States
Affiliation Zip:	76210
Affiliation Phone:	(940) 898-7500

41
East
1/8-1/4
0.204 mi.
1078 ft.

BJ'S RESTAURANT & BREWHOUSE
2365 SAND CREEK RD
BRENTWOOD, CA 94513

NPDES **S122246726**
CONTRA COSTA CO. SITE LIST **N/A**

Relative:
Lower

Actual:
127 ft.

NPDES:

Name:	BJS RESTAURANT AND BREWHOUSE
Address:	2365 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	5S07W000308
Regulatory Measure Type:	Construction
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Expired
Status Date:	10/10/2011
Operator Name:	BJs Restaurants Inc
Operator Address:	7755 Center Ave
Operator City:	Huntington Beach
Operator State:	California
Operator Zip:	92647

CONTRA COSTA CO. SITE LIST:

Name:	BJ'S RESTAURANT & BREWHOUSE
Address:	2365 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0042894
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP GENERAL
Region:	CONTRA COSTA
Cupa Number:	776374

E42 **RALEY'S #336** **RCRA NonGen / NLR** **1006805418**
East **2400 SANDCREEK RD** **FINDS** **CAR000126821**
1/8-1/4 **BRENTWOOD, CA 94513**
0.214 mi.
1128 ft. **Site 1 of 3 in cluster E**

Relative:
Lower

Actual:
124 ft.

RCRA NonGen / NLR:

Date form received by agency:	2003-03-04 00:00:00.0
Facility name:	RALEY'S #336
Facility address:	2400 SAND CREEK RD BRENTWOOD, CA 94513-7058
EPA ID:	CAR000126821
Mailing address:	PO BOX 15618 SACRAMENTO, CA 95852-1618
Contact:	GLENN BAKER
Contact address:	PO BOX 15618 SACRAMENTO, CA 95852-1618
Contact country:	Not reported
Contact telephone:	916-373-6318
Contact email:	GBAKER@RALEYS.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	GLENN BAKER
Owner/operator address:	PO BOX 15618 SACRAMENTO, CA 95852
Owner/operator country:	Not reported
Owner/operator telephone:	916-373-6318
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	RALEY'S FARMS INC
Owner/operator address:	500 W CAPITOL AVE WEST SACRAMENTO, CA 95605
Owner/operator country:	Not reported
Owner/operator telephone:	916-373-6318
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	RALEYS SUPERMARKETS INC
Owner/operator address:	500 W CAPITOL AVE W SACRAMENTO, CA 95605
Owner/operator country:	Not reported
Owner/operator telephone:	916-373-6352
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported

RALEY'S #336 (Continued) **1006805418**

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: Yes
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: Yes
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 2002-08-26 00:00:00.0
Site name: RALEYS NO 336
Classification: Small Quantity Generator

Hazardous Waste Summary:

. Waste code: D000
. Waste name: Not Defined

. Waste code: D011
. Waste name: SILVER

Violation Status: No violations found

FINDS:
Registry ID: 110013307395
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110013307395

Environmental Interest/Information System:
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

E43 **RALEYS #336** **CONTRA COSTA CO. SITE LIST** **S106800079**
East **2400 SAND CREEK RD** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.214 mi.
1128 ft. **Site 2 of 3 in cluster E**

Relative: **Lower**
Actual: **124 ft.**

CONTRA COSTA CO. SITE LIST:

Name:	RALEYS #336
Address:	2400 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0030141
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HWG: LESS THAN 5 TONS/YEAR
Region:	CONTRA COSTA
Cupa Number:	773472

D44 **EQUILON PIPLINE CO LLC** **CONTRA COSTA CO. SITE LIST** **S103464217**
NE **3052 SAND CREEK RD** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.214 mi.
1129 ft. **Site 2 of 2 in cluster D**

Relative: **Lower**
Actual: **132 ft.**

CONTRA COSTA CO. SITE LIST:

Name:	EQUILON PIPLINE CO LLC
Address:	3052 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0030744
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP GENERAL
Region:	CONTRA COSTA
Cupa Number:	704212

Name:	EQUILON PIPLINE CO LLC
Address:	3052 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0030744
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	UNDERGROUND STORAGE TANK SITE
Region:	CONTRA COSTA
Cupa Number:	704212

F45 **LOMA VISTA ELEMENTARY CLASSROOM ADDITION** **ENVIROSTOR SCH** **S118757485**
ESE **2110 SAN JOSE AVENUE** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.227 mi.
1201 ft. **Site 1 of 2 in cluster F**

Relative: **Lower**
Actual: **124 ft.**

ENVIROSTOR:

Name:	LOMA VISTA ELEMENTARY CLASSROOM ADDITION
Address:	2110 SAN JOSE AVENUE
City,State,Zip:	BRENTWOOD, CA 94513-5930
Facility ID:	7820007
Status:	No Action Required
Status Date:	05/31/2001
Site Code:	204078

LOMA VISTA ELEMENTARY CLASSROOM ADDITION (Continued) **S118757485**

Site Type: School Investigation
Site Type Detailed: School
Acres: 54
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Kamili Siglowide
Supervisor: Charles Ridenour
Division Branch: Northern California Schools & Santa Susana
Assembly: 11
Senate: 07
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 37.94052
Longitude: -121.7355
APN: 019110043
Past Use: SCHOOL - ELEMENTARY
Potential COC: NONE SPECIFIED No Contaminants found
Confirmed COC: NONE SPECIFIED
Potential Description: NMA
Alias Name: Not reported
Alias Type: Not reported

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Name: LOMA VISTA ELEMENTARY CLASSROOM ADDITION
Address: 2110 SAN JOSE AVENUE
City,State,Zip: BRENTWOOD, CA 94513-5930
Facility ID: 7820007
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 54
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Kamili Siglowide

LOMA VISTA ELEMENTARY CLASSROOM ADDITION (Continued) **S118757485**

Supervisor:	Charles Ridenour
Division Branch:	Northern California Schools & Santa Susana
Site Code:	204078
Assembly:	11
Senate:	07
Special Program Status:	Not reported
Status:	No Action Required
Status Date:	05/31/2001
Restricted Use:	NO
Funding:	School District
Latitude:	37.94052
Longitude:	-121.7355
APN:	019110043
Past Use:	SCHOOL - ELEMENTARY
Potential COC:	NONE SPECIFIED, No Contaminants found
Confirmed COC:	NONE SPECIFIED
Potential Description:	NMA
Alias Name:	Not reported
Alias Type:	Not reported

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

F46 **T-MOBILE WEST CORP/BA01704A** **CONTRA COSTA CO. SITE LIST** **S109448831**
ESE **2110 SAN JOSE AVE** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.227 mi.
1201 ft. **Site 2 of 2 in cluster F**

Relative: **Lower**
Actual: **124 ft.**

CONTRA COSTA CO. SITE LIST:

Name:	T-MOBILE WEST CORP/BA01704A
Address:	2110 SAN JOSE AVE
City:	BRENTWOOD
Facility ID:	FA0030789
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP: LESS THAN 1000 LBS
Region:	CONTRA COSTA
Cupa Number:	774010

E47 **RED ROBIN #590 (BRENTWOOD)** **CONTRA COSTA CO. SITE LIST** **S123185260**
East **2385 SAND CREEK RD** **CERS** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.235 mi.
1243 ft. **Site 3 of 3 in cluster E**

Relative:
Lower

Actual:
124 ft.

CONTRA COSTA CO. SITE LIST:

Name:	RED ROBIN #590 (BRENTWOOD)
Address:	2385 SAND CREEK RD
City:	BRENTWOOD
Facility ID:	FA0042183
Billing Status:	ACTIVE, BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	HMBP: LESS THAN 1000 LBS
Region:	CONTRA COSTA
Cupa Number:	776280

CERS:

Name:	RED ROBIN #590 (BRENTWOOD)
Address:	2385 SAND CREEK RD
City,State,Zip:	BRENTWOOD, CA 94513
Site ID:	445378
CERS ID:	10776655
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	445378
Site Name:	Red Robin #590 (Brentwood)
Violation Date:	06-20-2019
Citation:	HSC 6.95 25505(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(c)
Violation Description:	Failure to have a business plan readily available to personnel of the business or the unified program facility with responsibilities for emergency response or training.
Violation Notes:	OBSERVATION: The business failed to have the hazardous material business plan readily available to personnel of the business or the unified program facility with responsibilities for emergency response or training. CORRECTIVE ACTION: Provide a readily available business plan to personnel of the business or the unified program facility with responsibilities for emergency response or training. Document that appropriate personnel have the business plan readily available.
Violation Division:	Contra Costa County Health Services Department
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	445378
Site Name:	Red Robin #590 (Brentwood)
Violation Date:	06-20-2019
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes:	OBSERVATION: The business failed to complete and electronically submit chemical inventory information for all reportable hazardous materials on site at or above reportable quantities. Used cooking oil is over threshold and needs to be added to the inventory. CORRECTIVE ACTION: Complete and electronically submit the chemical inventory information for used cooking oil. 200 gallon tank observed onsite, manager

RED ROBIN #590 (BRENTWOOD) (Continued) **S123185260**

observed that typically the tank is filled to 75 gallons prior to being picked up.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 445378
Site Name: Red Robin #590 (Brentwood)
Violation Date: 06-20-2019
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes: OBSERVATION: The business failed to provide annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material including familiarity with the emergency response plan or failure to document and maintain training records for a minimum of three years. CORRECTIVE ACTION: Provide documentation of annual training to inspector. Ensure annual training occurs moving forward and records (paper or electronic logs) are stored onsite for a minimum of 3 years.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-20-2019
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Enforcement Action:
Site ID: 445378
Site Name: Red Robin #590 (Brentwood)
Site Address: 2385 SAND CREEK RD
Site City: BRENTWOOD
Site Zip: 94513
Enf Action Date: 06-20-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Coordinates:
Site ID: 445378
Facility Name: Red Robin #590 (Brentwood)
Env Int Type Code: HMBP
Program ID: 10776655

RED ROBIN #590 (BRENTWOOD) (Continued) **S123185260**

Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	37.943720
Longitude:	-121.739210

Affiliation:

Affiliation Type Desc:	Environmental Contact
Entity Name:	Licensing Department
Entity Title:	Not reported
Affiliation Address:	6312 S Fiddlers Green Cir #200N, Attn: Licensing
Affiliation City:	Greenwood Village
Affiliation State:	CO
Affiliation Country:	Not reported
Affiliation Zip:	80111
Affiliation Phone:	Not reported

Affiliation Type Desc:	Operator
Entity Name:	RED ROBIN INTERNATIONAL, INC.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(303) 846-6000

Affiliation Type Desc:	Property Owner
Entity Name:	FHB Retail Partners, LLC
Entity Title:	Not reported
Affiliation Address:	1 East Wacker Drive STE 2900
Affiliation City:	Chicago
Affiliation State:	IL
Affiliation Country:	United States
Affiliation Zip:	60601
Affiliation Phone:	(312) 789-4680

Affiliation Type Desc:	CUPA District
Entity Name:	Contra Costa County Health Services Department
Entity Title:	Not reported
Affiliation Address:	4585 Pacheco BlvdSuite 100
Affiliation City:	Martinez
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94553
Affiliation Phone:	(925) 335-3200

Affiliation Type Desc:	Document Preparer
Entity Name:	Amanda Black
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner

RED ROBIN #590 (BRENTWOOD) (Continued) **S123185260**

Entity Name:	RED ROBIN INTERNATIONAL, INC.
Entity Title:	Not reported
Affiliation Address:	6312 S. Fiddler's Green CIrcle, Suite 200 N.
Affiliation City:	Greenwood Village
Affiliation State:	CO
Affiliation Country:	United States
Affiliation Zip:	80111
Affiliation Phone:	(303) 846-6000
Affiliation Type Desc:	Parent Corporation
Entity Name:	RED ROBIN INTERNATIONAL, INC.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	6312 S. Fiddler's Green Circle, Suite 200 N. ATTN Licensing
Affiliation City:	Greenwood Village
Affiliation State:	CO
Affiliation Country:	Not reported
Affiliation Zip:	80111
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Amanda Black
Entity Title:	Licensing Coordinator
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

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48 **TERMO COMPANY** **LUST** **1002848197**
ESE **SAN JOSE AVE** **HIST CORTESE** **N/A**
1/4-1/2 **BRENTWOOD, CA 94513** **CERS**
0.356 mi.
1882 ft.

Relative:
Lower

Actual:
117 ft.

LUST REG 5:

Name:	TERMO COMPANY
Address:	SAN JOSE AVE
City:	BRENTWOOD
Region:	5
Status:	Case Closed
Case Number:	070007
Case Type:	Soil only
Substance:	UNLEAD GASOLINE
Staff Initials:	PMV
Lead Agency:	Regional
Program:	LUST

TERMO COMPANY (Continued) **1002848197**

MTBE Code: N/A

HIST CORTESE:
edr_fname: TERMO COMPANY
edr_fadd1: SAN JOSE AVE
City,State,Zip: BRENTWOOD, CA 94513
Region: CORTESE
Facility County Code: 7
Reg By: LTNKA
Reg Id: 070007

CERS:
Name: TERMO COMPANY
Address: SAN JOSE AVE
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 250119
CERS ID: T0601300748
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: BRUCE BENIKI - CONTRA COSTA COUNTY
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: r5 UNKNOWN
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Regional Board Caseworker
Entity Name: VERA J. FISCHER - CENTRAL VALLEY RWQCB (REGION 5S)
Entity Title: Not reported
Affiliation Address: 11020 SUN CENTER DRIVE #200
Affiliation City: RANCHO CORDOVA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

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49 **EMPIRE ELEMENTARY SCHOOL** **ENVIROSTOR** **S116165206**
NE **EMPIRE AVENUE/AMBER LANE** **SCH** **N/A**
1/2-1 **BRENTWOOD, CA 94513**
0.798 mi.
4212 ft.

Relative:
Lower

Actual:
114 ft.

ENVIROSTOR:
Name: EMPIRE ELEMENTARY SCHOOL
Address: EMPIRE AVENUE/AMBER LANE
City,State,Zip: BRENTWOOD, CA 94513
Facility ID: 1010005
Status: Certified
Status Date: 06/09/2003
Site Code: 201282
Site Type: School Cleanup
Site Type Detailed: School

EMPIRE ELEMENTARY SCHOOL (Continued) **S116165206**

Acres:	18.96
NPL:	NO
Regulatory Agencies:	HWMP
Lead Agency:	HWMP
Program Manager:	Kamili Siglowide
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana
Assembly:	11
Senate:	07
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	37.95523
Longitude:	-121.7335
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	Arsenic DDE DDT Toxaphene
Confirmed COC:	Arsenic DDE DDT Toxaphene
Potential Description:	SOIL
Alias Name:	Not reported
Alias Type:	Not reported

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

SCH:

Name:	EMPIRE ELEMENTARY SCHOOL
Address:	EMPIRE AVENUE/AMBER LANE
City,State,Zip:	BRENTWOOD, CA 94513
Facility ID:	1010005
Site Type:	School Cleanup
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	18.96
National Priorities List:	NO
Cleanup Oversight Agencies:	HWMP
Lead Agency:	HWMP
Lead Agency Description:	DTSC - Hazardous Waste Management Program
Project Manager:	Kamili Siglowide
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana

EMPIRE ELEMENTARY SCHOOL (Continued) **S116165206**

Site Code:	201282
Assembly:	11
Senate:	07
Special Program Status:	Not reported
Status:	Certified
Status Date:	06/09/2003
Restricted Use:	NO
Funding:	School District
Latitude:	37.95523
Longitude:	-121.7335
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	Arsenic, DDE, DDT, Toxaphene
Confirmed COC:	Arsenic, DDE, DDT, Toxaphene
Potential Description:	SOIL
Alias Name:	Not reported
Alias Type:	Not reported

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

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50 **MILES-FENELL PROPERTY** **ENVIROSTOR** **S116490709**
NNE **2200 SHADY WILLOW LANE,2301 & 2251 EMPIRE AVENUE** **VCP** **N/A**
1/2-1 **BRENTWOOD, CA 94513**
0.845 mi.
4462 ft.

Relative:
Lower

Actual:
114 ft.

ENVIROSTOR:

Name:	MILES-FENELL PROPERTY
Address:	2200 SHADY WILLOW LANE,2301 & 2251 EMPIRE AVENUE
City,State,Zip:	BRENTWOOD, CA 94513
Facility ID:	60001996
Status:	No Further Action
Status Date:	08/12/2014
Site Code:	202004
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	13.92
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Daniel Murphy
Division Branch:	Cleanup Berkeley

MILES-FENELL PROPERTY (Continued) **S116490709**

Assembly:	11
Senate:	07
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	37.95763
Longitude:	-121.7360
APN:	019040050, 019040051, 019040066
Past Use:	AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC:	Arsenic
Confirmed COC:	Arsenic
Potential Description:	SOIL
Alias Name:	Bella Fiore Development
Alias Type:	Alternate Name
Alias Name:	019040050
Alias Type:	APN
Alias Name:	019040051
Alias Type:	APN
Alias Name:	019040066
Alias Type:	APN
Alias Name:	202004
Alias Type:	Project Code (Site Code)
Alias Name:	60001996
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	05/14/2014
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	No Further Action Letter
Completed Date:	08/12/2014
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	06/27/2014
Comments:	Acceptance of the documents as a PEA equivalency with further work needed.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Application
Completed Date:	04/03/2014
Comments:	DTSC was selected for the oversight for this project.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported

MILES-FENELL PROPERTY (Continued) **S116490709**

Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:
Name: MILES-FENELL PROPERTY
Address: 2200 SHADY WILLOW LANE,2301 & 2251 EMPIRE AVENUE
City,State,Zip: BRENTWOOD, CA 94513
Facility ID: 60001996
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 13.92
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Daniel Murphy
Division Branch: Cleanup Berkeley
Site Code: 202004
Assembly: 11
Senate: 07
Special Programs Code: Not reported
Status: No Further Action
Status Date: 08/12/2014
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 37.95763 / -121.7360
APN: 019040050, 019040051, 019040066
Past Use: AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC: 30001
Confirmed COC: 30001
Potential Description: SOIL
Alias Name: Bella Fiore Development
Alias Type: Alternate Name
Alias Name: 019040050
Alias Type: APN
Alias Name: 019040051
Alias Type: APN
Alias Name: 019040066
Alias Type: APN
Alias Name: 202004
Alias Type: Project Code (Site Code)
Alias Name: 60001996
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 05/14/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: No Further Action Letter

MILES-FENELL PROPERTY (Continued) **S116490709**

Completed Date:	08/12/2014
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	06/27/2014
Comments:	Acceptance of the documents as a PEA equivalency with further work needed.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Application
Completed Date:	04/03/2014
Comments:	DTSC was selected for the oversight for this project.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

Count: 2 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BRENTWOOD	S106707856	SHEA HOMES PROPERTY (FORMERLY GERM	SAN JOSE AVE AND SAN JOSE RD		CPS-SLIC
BRENTWOOD	S105982781	THE TERMO COMPANY	SAN JOSE AVE., SW END		CPS-SLIC

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: N/A
Last EDR Contact: 03/04/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: N/A
Last EDR Contact: 03/04/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: N/A
Last EDR Contact: 03/04/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/03/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/04/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 11/04/2019
Date Data Arrived at EDR: 11/13/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 76

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/10/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/22/2019
Date Data Arrived at EDR: 11/22/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 67

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/20/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/22/2019
Date Data Arrived at EDR: 11/22/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 67

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/20/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/19/2019
Date Made Active in Reports: 03/06/2020
Number of Days to Update: 78

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 10/28/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/07/2020
Number of Days to Update: 70

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/28/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 10/28/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/07/2020
Number of Days to Update: 70

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/28/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/11/2019
Date Data Arrived at EDR: 11/12/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 57

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/11/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 66

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Quarterly

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/27/2020
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/15/2019
Date Data Arrived at EDR: 12/17/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 12/16/2019
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/10/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 67

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 72

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/02/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 08/27/2019
Date Data Arrived at EDR: 08/28/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 75

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/21/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 12/06/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/25/2020
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 03/11/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/21/2020
Number of Days to Update: 73

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 03/12/2020
Next Scheduled EDR Contact: 06/29/2020
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/10/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 67

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/02/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 72

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/27/2020
Number of Days to Update: 85

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142
Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/17/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 10/28/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/07/2020
Number of Days to Update: 70
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/28/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27
Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 12/18/2019
Date Data Arrived at EDR: 12/19/2019
Date Made Active in Reports: 02/19/2020
Number of Days to Update: 62
Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 03/06/2020
Number of Days to Update: 81
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/16/2019
Next Scheduled EDR Contact: 03/30/2020
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/19/2020
Number of Days to Update: 71

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 11/15/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 69

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/07/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/27/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 10/28/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/07/2020
Number of Days to Update: 70

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/28/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/16/2019
Date Made Active in Reports: 09/24/2019
Number of Days to Update: 70

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Varies

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 10/21/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/02/2020
Number of Days to Update: 72

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 01/22/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/19/2019
Date Data Arrived at EDR: 12/23/2019
Date Made Active in Reports: 02/21/2020
Number of Days to Update: 60

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/02/2019
Date Made Active in Reports: 10/11/2019
Number of Days to Update: 70

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CERS TANKS: California Environmental Reporting System (CERS) Tanks

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 10/21/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/03/2020
Number of Days to Update: 73

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/22/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Quarterly

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 03/05/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/03/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/05/2019
Date Data Arrived at EDR: 12/06/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 70

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/06/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 05/15/2019
Date Data Arrived at EDR: 06/24/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 58

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/22/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 66

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 11/12/2019
Date Data Arrived at EDR: 11/19/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 70

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/19/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/10/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/09/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63
Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/13/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/19/2019
Date Made Active in Reports: 02/27/2020
Number of Days to Update: 70
Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88
Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/03/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73
Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/07/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198
Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 03/30/2020
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 11/16/2018
Date Made Active in Reports: 11/21/2019
Number of Days to Update: 370

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 10/23/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 84

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/04/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/25/2019
Date Data Arrived at EDR: 05/02/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/21/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/06/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 8
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 03/04/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/09/2019
Date Data Arrived at EDR: 10/11/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 70
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/10/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/25/2019
Date Data Arrived at EDR: 10/25/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 82
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 01/21/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 42
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 03/06/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 02/07/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 78

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/28/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/17/2020
Date Made Active in Reports: 03/06/2020
Number of Days to Update: 49

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 03/04/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/06/2019
Date Data Arrived at EDR: 11/25/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 64

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/25/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 12/03/2019
Date Data Arrived at EDR: 12/03/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 56

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 03/02/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 02/28/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 02/28/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/11/2019
Date Made Active in Reports: 02/27/2020
Number of Days to Update: 78

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 03/05/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 11/22/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 03/02/2020
Number of Days to Update: 89

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 03/03/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/05/2020
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/06/2020
Number of Days to Update: 59
Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74
Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/13/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/19/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 70
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/19/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/18/2019
Date Data Arrived at EDR: 12/20/2019
Date Made Active in Reports: 02/20/2020
Number of Days to Update: 62
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing
list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64
Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

CUPA SAN FRANCISCO CO: CUPA Facility Listing
Cupa facilities

Date of Government Version: 10/31/2019
Date Data Arrived at EDR: 11/01/2019
Date Made Active in Reports: 12/11/2019
Number of Days to Update: 40

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 09/06/2019
Date Data Arrived at EDR: 10/11/2019
Date Made Active in Reports: 12/12/2019
Number of Days to Update: 62

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Annually

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 09/27/2019
Date Data Arrived at EDR: 10/01/2019
Date Made Active in Reports: 11/07/2019
Number of Days to Update: 37

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/03/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 63

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Varies

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/24/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 59

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 03/29/2020
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/22/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 66

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 01/22/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 10/17/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/02/2020
Number of Days to Update: 72

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/08/2019
Date Data Arrived at EDR: 11/12/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 57

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/07/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 05/29/2019
Date Made Active in Reports: 07/22/2019
Number of Days to Update: 54

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/19/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 65

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 02/19/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/19/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 65

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/19/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/06/2020
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/05/2020
Number of Days to Update: 58

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/24/2020
Number of Days to Update: 76
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 11/22/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/03/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 11/11/2019
Date Data Arrived at EDR: 11/12/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 57
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/11/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 12/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 03/03/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/19/2020
Number of Days to Update: 71
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 12/11/2019
Date Data Arrived at EDR: 12/12/2019
Date Made Active in Reports: 02/21/2020
Number of Days to Update: 71
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/12/2020
Next Scheduled EDR Contact: 06/29/2020
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 12/06/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/19/2020
Number of Days to Update: 71
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 11/19/2019
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 62
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 12/17/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 12/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 03/03/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 10/21/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/03/2020
Number of Days to Update: 73

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/22/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/18/2020
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System
The Hazardous Waste Tracking System (HWTS) is the Department of Toxic Substances Control?s data repository for hazardous waste Identification (ID) numbers and manifest information. HWTS generates reports on hazardous waste shipments for generators, transporters, and TSDFs.

Date of Government Version: 10/15/2019
Date Data Arrived at EDR: 11/14/2019
Date Made Active in Reports: 02/07/2020
Number of Days to Update: 85

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 02/28/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites
A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 01/06/2020
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/06/2020
Number of Days to Update: 59

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 09/06/2019
Date Data Arrived at EDR: 09/10/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 51

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/03/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 63

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/03/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/27/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 12/11/2019
Number of Days to Update: 43

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/03/2020
Date Made Active in Reports: 03/05/2020
Number of Days to Update: 62

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 01/03/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 10/08/2019
Date Data Arrived at EDR: 10/10/2019
Date Made Active in Reports: 12/11/2019
Number of Days to Update: 62

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/03/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 11/13/2019
Date Data Arrived at EDR: 11/14/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 70

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/18/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 10/17/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/02/2020
Number of Days to Update: 72

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 02/13/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

KERN COUNTY:

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 10/28/2019
Date Data Arrived at EDR: 11/05/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 64

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/25/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 61

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 02/13/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List

Cupa facility list

Date of Government Version: 08/16/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/08/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List

Cupa facility list

Date of Government Version: 07/22/2019
Date Data Arrived at EDR: 07/23/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 65

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 03/12/2020
Next Scheduled EDR Contact: 06/29/2020
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 01/15/2020
Date Data Arrived at EDR: 01/16/2020
Date Made Active in Reports: 02/07/2020
Number of Days to Update: 22

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/15/2019
Date Data Arrived at EDR: 10/16/2019
Date Made Active in Reports: 12/12/2019
Number of Days to Update: 57

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/14/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/13/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills
This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 04/30/2012
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 42

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory
A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory
A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 71
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/14/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/13/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/27/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 10/02/2019
Number of Days to Update: 64
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/20/2019
Date Made Active in Reports: 01/27/2020
Number of Days to Update: 68
Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29
Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/20/2019
Date Made Active in Reports: 01/03/2020
Number of Days to Update: 44

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/13/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 11/20/2019
Date Data Arrived at EDR: 12/02/2019
Date Made Active in Reports: 02/07/2020
Number of Days to Update: 67

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 11/06/2019
Date Data Arrived at EDR: 11/07/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 62

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/05/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 10/30/2019
Date Data Arrived at EDR: 10/30/2019
Date Made Active in Reports: 12/11/2019
Number of Days to Update: 42

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 12/02/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 64

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/03/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 12/02/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 64

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/03/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 11/05/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 64

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/04/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/03/2019
Date Made Active in Reports: 02/07/2020
Number of Days to Update: 66

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/17/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 12/13/2019
Number of Days to Update: 52
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 02/10/2020
Next Scheduled EDR Contact: 03/30/2020
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/17/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/03/2020
Number of Days to Update: 73
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 02/10/2020
Next Scheduled EDR Contact: 03/30/2020
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/14/2019
Date Data Arrived at EDR: 12/23/2019
Date Made Active in Reports: 02/20/2020
Number of Days to Update: 59
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 12/23/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/14/2019
Date Data Arrived at EDR: 12/23/2019
Date Made Active in Reports: 02/21/2020
Number of Days to Update: 60
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 12/23/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 11/14/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 69
Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 11/26/2019
Date Data Arrived at EDR: 11/27/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 69

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/03/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 12/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 62

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/03/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 10/16/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 12/13/2019
Number of Days to Update: 52

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 01/08/2020
Date Data Arrived at EDR: 01/09/2020
Date Made Active in Reports: 03/06/2020
Number of Days to Update: 57

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/12/2020
Next Scheduled EDR Contact: 06/29/2020
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 12/12/2019
Date Data Arrived at EDR: 12/13/2019
Date Made Active in Reports: 02/20/2020
Number of Days to Update: 69

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 09/03/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/05/2019
Number of Days to Update: 57

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 02/20/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/05/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/19/2019
Date Made Active in Reports: 01/23/2020
Number of Days to Update: 65

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 10/30/2019
Date Data Arrived at EDR: 11/01/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 68

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/13/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/14/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 12/09/2019
Date Data Arrived at EDR: 12/11/2019
Date Made Active in Reports: 02/21/2020
Number of Days to Update: 72

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 02/25/2020
Date Data Arrived at EDR: 02/26/2020
Date Made Active in Reports: 03/11/2020
Number of Days to Update: 14

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/03/2020
Date Made Active in Reports: 03/05/2020
Number of Days to Update: 62

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/17/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 11/04/2019
Date Data Arrived at EDR: 11/07/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 62

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 01/13/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 12/02/2019
Date Data Arrived at EDR: 12/03/2019
Date Made Active in Reports: 02/07/2020
Number of Days to Update: 66

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 05/20/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 07/18/2019
Number of Days to Update: 58

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 01/23/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 10/17/2019
Date Data Arrived at EDR: 10/22/2019
Date Made Active in Reports: 01/02/2020
Number of Days to Update: 72

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 11/25/2019
Date Data Arrived at EDR: 11/27/2019
Date Made Active in Reports: 02/04/2020
Number of Days to Update: 69

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 02/03/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 05/29/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 63
Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/21/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/07/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/26/2019
Date Data Arrived at EDR: 10/23/2019
Date Made Active in Reports: 12/13/2019
Number of Days to Update: 51
Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/21/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/26/2019
Date Data Arrived at EDR: 12/10/2019
Date Made Active in Reports: 02/21/2020
Number of Days to Update: 73
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/10/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 09/25/2019
Date Data Arrived at EDR: 10/01/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 30
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 11/04/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 01/08/2020
Number of Days to Update: 63

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 02/07/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 01/30/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 39

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 01/30/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 05/01/2019
Date Made Active in Reports: 06/21/2019
Number of Days to Update: 51

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/14/2020
Next Scheduled EDR Contact: 04/07/2020
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 10/02/2019
Date Made Active in Reports: 12/10/2019
Number of Days to Update: 69

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/18/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/09/2020
Next Scheduled EDR Contact: 06/22/2020
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

BRIDLEGATE
SAND CREEK ROAD AND SAN JOSE AVE.
BRENTWOOD, CA 94513

TARGET PROPERTY COORDINATES

Latitude (North):	37.943197 - 37° 56' 35.51''
Longitude (West):	121.746841 - 121° 44' 48.63''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	610113.8
UTM Y (Meters):	4200047.5
Elevation:	204 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5640376 BRENTWOOD, CA
Version Date:	2012
West Map:	5640044 ANTIOCH SOUTH, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

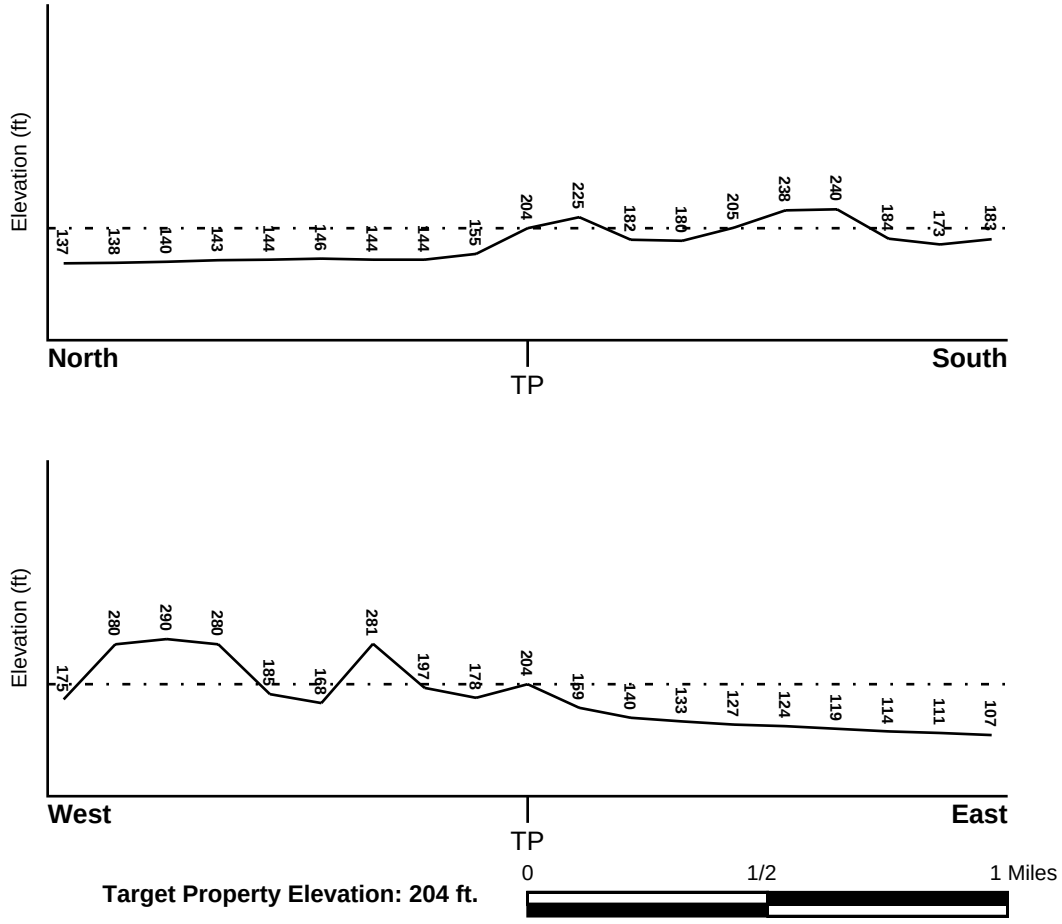
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 204 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06013C0353F	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06013C0335F	FEMA FIRM Flood data
06013C0345F	FEMA FIRM Flood data
06013C0361F	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
BRENTWOOD	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

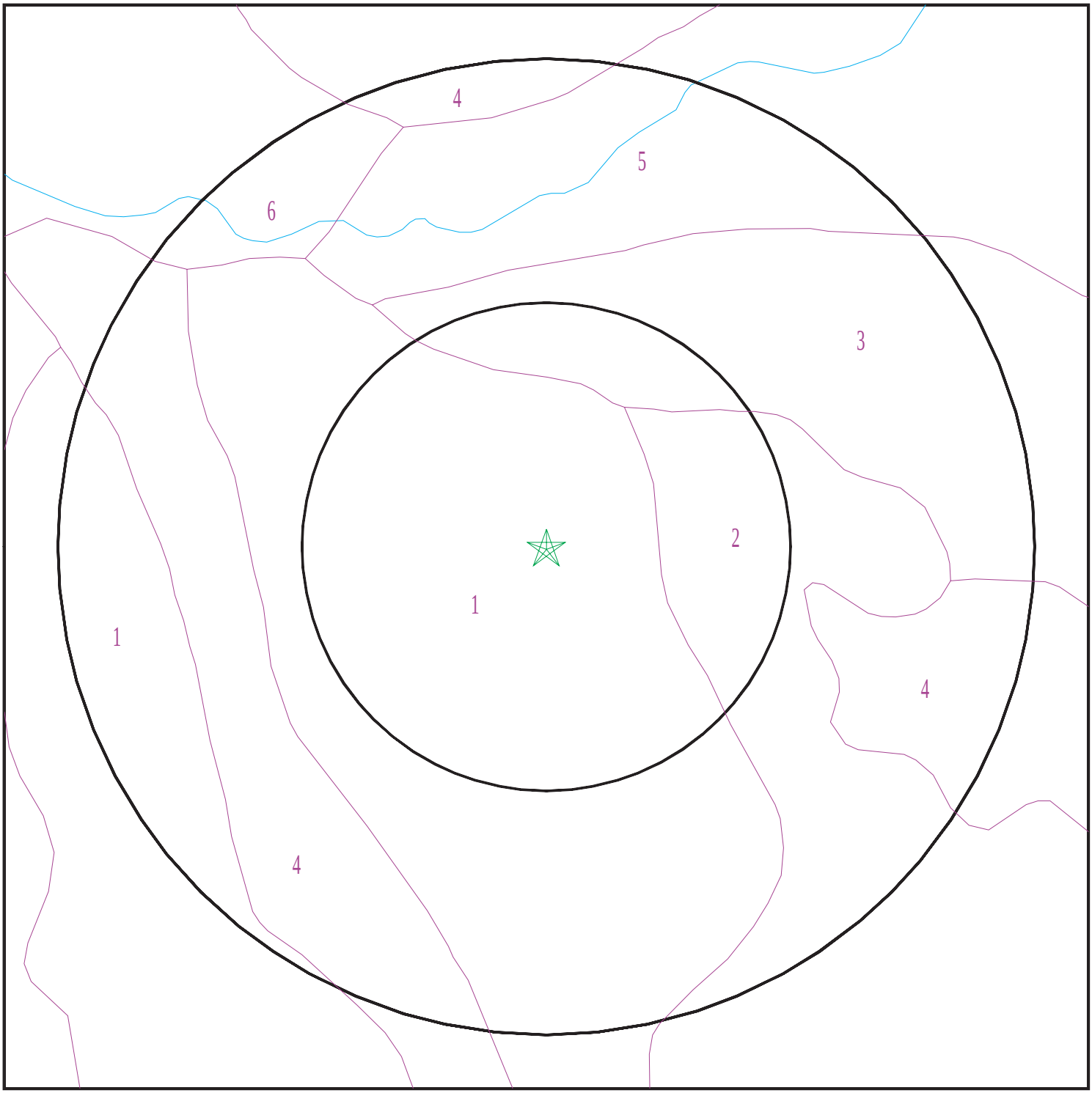
Era:	Cenozoic
System:	Tertiary
Series:	Eocene
Code:	Te *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 06010925.2r



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Bridlegate	CLIENT:	Engeo Inc.
ADDRESS:	Sand Creek Road and San Jose Ave. Brentwood CA 94513	CONTACT:	Brooke Spruit
LAT/LONG:	37.943197 / 121.746841	INQUIRY #:	06010925.2r
		DATE:	March 17, 2020 12:08 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: ALTAMONT

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	25 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0	Max: Min:
2	25 inches	48 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0	Max: Min:
3	48 inches	51 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0	Max: Min:

Soil Map ID: 2

Soil Component Name: ALTAMONT

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	25 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0	Max: Min:
2	25 inches	48 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0	Max: Min:
3	48 inches	51 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0	Max: Min:

Soil Map ID: 3

Soil Component Name: BRENTWOOD

Soil Surface Texture: clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	18 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4
2	18 inches	50 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4
3	50 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4

Soil Map ID: 4

Soil Component Name: CAPAY

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	35 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
2	35 inches	51 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
3	51 inches	72 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6

Soil Map ID: 5

Soil Component Name: SYCAMORE

Soil Surface Texture: silty clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 127 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
2	14 inches	40 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
3	40 inches	59 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6

Soil Map ID: 6

Soil Component Name: RINCON

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
2	11 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
3	29 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

OTHER STATE DATABASE INFORMATION

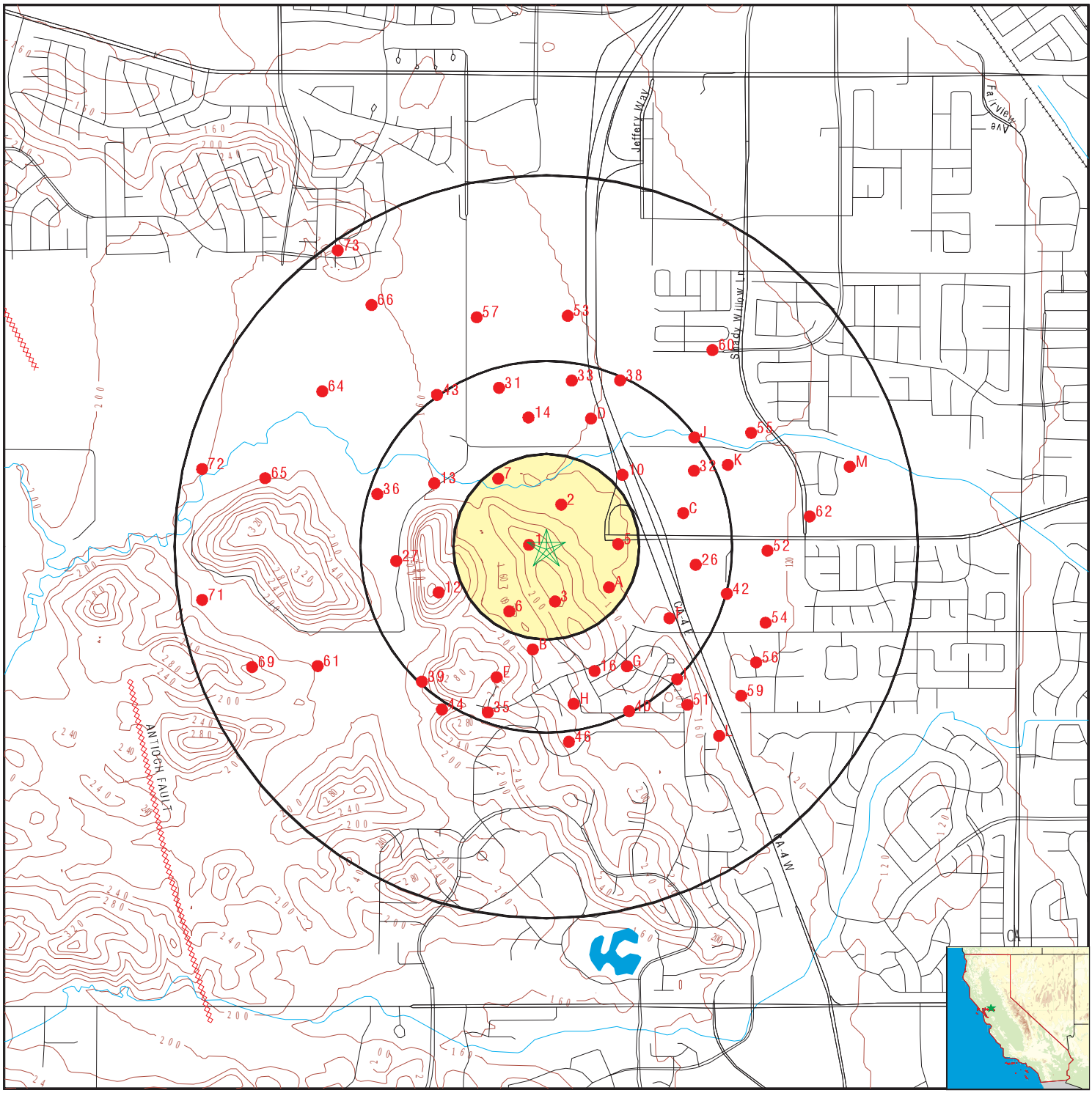
STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG13000054832	0 - 1/8 Mile West
2	CAOG13000054813	0 - 1/8 Mile NNE
3	CAOG13000054833	1/8 - 1/4 Mile South
A4	CAOG13000054855	1/8 - 1/4 Mile ESE
5	CAOG13000054766	1/8 - 1/4 Mile East
6	CAOG13000054817	1/8 - 1/4 Mile SSW
7	CAOG13000054818	1/8 - 1/4 Mile NW
A8	CAOG13000054816	1/8 - 1/4 Mile SE
B9	CAOG13000054875	1/4 - 1/2 Mile SSW
10	CAOG13000054819	1/4 - 1/2 Mile NE
B11	CAOG13000054824	1/4 - 1/2 Mile South
12	CAOG13000054884	1/4 - 1/2 Mile WSW
13	CAOG13000054793	1/4 - 1/2 Mile WNW
14	CAOG13000054783	1/4 - 1/2 Mile North
C15	CAOG13000054852	1/4 - 1/2 Mile ENE
16	CAOG13000054857	1/4 - 1/2 Mile SSE
D17	CAOG13000054799	1/4 - 1/2 Mile NNE
E18	CAOG13000054828	1/4 - 1/2 Mile SSW
D19	CAOG13000054800	1/4 - 1/2 Mile NNE
F20	CAOG13000054821	1/4 - 1/2 Mile ESE
C21	CAOG13000054877	1/4 - 1/2 Mile East
G22	CAOG13000054826	1/4 - 1/2 Mile SE
E23	CAOG13000054768	1/4 - 1/2 Mile SSW
F24	CAOG13000054834	1/4 - 1/2 Mile ESE
G25	CAOG13000054882	1/4 - 1/2 Mile SSE
26	CAOG13000054883	1/4 - 1/2 Mile East
27	CAOG13000054792	1/4 - 1/2 Mile West
C28	CAOG13000054774	1/4 - 1/2 Mile ENE
H29	CAOG13000054822	1/4 - 1/2 Mile South
H30	CAOG13000054856	1/4 - 1/2 Mile SSE
31	CAOG13000054784	1/4 - 1/2 Mile NNW
32	CAOG13000054775	1/4 - 1/2 Mile ENE
33	CAOG13000054801	1/4 - 1/2 Mile North
I34	CAOG13000054823	1/4 - 1/2 Mile SE
35	CAOG13000054830	1/4 - 1/2 Mile SSW
36	CAOG13000054789	1/4 - 1/2 Mile WNW
J37	CAOG13000054878	1/4 - 1/2 Mile NE

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
38	CAOG13000054802	1/4 - 1/2 Mile NNE
39	CAOG13000054788	1/4 - 1/2 Mile SW
40	CAOG13000054873	1/4 - 1/2 Mile SSE
J41	CAOG13000054874	1/2 - 1 Mile NE
42	CAOG13000054808	1/2 - 1 Mile ESE
43	CAOG13000054787	1/2 - 1 Mile NW
44	CAOG13000054791	1/2 - 1 Mile SSW
K45	CAOG13000054866	1/2 - 1 Mile ENE
46	CAOG13000054831	1/2 - 1 Mile South
I47	CAOG13000054829	1/2 - 1 Mile SE
K48	CAOG13000054881	1/2 - 1 Mile ENE
K49	CAOG13000054876	1/2 - 1 Mile ENE
K50	CAOG13000054869	1/2 - 1 Mile ENE
51	CAOG13000054825	1/2 - 1 Mile SE
52	CAOG13000054862	1/2 - 1 Mile East
53	CAOG13000054778	1/2 - 1 Mile North
54	CAOG13000054870	1/2 - 1 Mile ESE
55	CAOG13000054868	1/2 - 1 Mile ENE
56	CAOG13000054781	1/2 - 1 Mile ESE
57	CAOG13000054849	1/2 - 1 Mile NNW
L58	CAOG13000054827	1/2 - 1 Mile SE
59	CAOG13000054776	1/2 - 1 Mile SE
60	CAOG13000054848	1/2 - 1 Mile NE
61	CAOG13000054790	1/2 - 1 Mile WSW
62	CAOG13000054798	1/2 - 1 Mile East
L63	CAOG13000054770	1/2 - 1 Mile SE
64	CAOG13000054880	1/2 - 1 Mile NW
65	CAOG13000054864	1/2 - 1 Mile WNW
66	CAOG13000054786	1/2 - 1 Mile NW
M67	CAOG13000202233	1/2 - 1 Mile ENE
M68	CAOG13000202277	1/2 - 1 Mile ENE
69	CAOG13000054785	1/2 - 1 Mile WSW
M70	CAOG13000202244	1/2 - 1 Mile ENE
71	CAOG13000054811	1/2 - 1 Mile West
72	CAOG13000054845	1/2 - 1 Mile WNW
73	CAOG13000054796	1/2 - 1 Mile NW

PHYSICAL SETTING SOURCE MAP - 06010925.2r



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Bridlegate	CLIENT:	Engeo Inc.
ADDRESS:	Sand Creek Road and San Jose Ave. Brentwood CA 94513	CONTACT:	Brooke Spruit
		INQUIRY #:	06010925.2r
LAT/LONG:	37.943197 / 121.746841	DATE:	March 17, 2020 12:08 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
West
0 - 1/8 Mile

OIL_GAS **CAOG13000054832**

API #:	0401300085	Well #:	38-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ward	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	07/04/1964		

2
NNE
0 - 1/8 Mile

OIL_GAS **CAOG13000054813**

API #:	0401300066	Well #:	3-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ward	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	09/09/1962		

3
South
1/8 - 1/4 Mile

OIL_GAS **CAOG13000054833**

API #:	0401300086	Well #:	36-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ward	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	Y
SPUD Date:	06/05/1964		

A4
ESE
1/8 - 1/4 Mile

OIL_GAS **CAOG13000054855**

API #:	0401320100	Well #:	39
Well Status:	Plugged	Well Type:	OG
Operator Name:	Shell Western E&P Inc.	Lease Name:	Dow-Termo Ward
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	Y	SPUD Date:	05/31/1975

Map ID
Direction
Distance

Database EDR ID Number

5
East **OIL_GAS** **CAOG13000054766**
1/8 - 1/4 Mile

API #:	0401300018	Well #:	37-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ward	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	06/23/1964		

6
SSW **OIL_GAS** **CAOG13000054817**
1/8 - 1/4 Mile

API #:	0401300070	Well #:	32-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ward	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	05/03/1963		

7
NW **OIL_GAS** **CAOG13000054818**
1/8 - 1/4 Mile

API #:	0401300071	Well #:	34-10
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ward	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	11/15/1963		

A8
SE **OIL_GAS** **CAOG13000054816**
1/8 - 1/4 Mile

API #:	0401300069	Well #:	31-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ward	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	01/06/1963		

Map ID
Direction
Distance

Database EDR ID Number

B9
SSW
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054875**

API #:	0401320021	Well #:	14
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	04/02/1968

10
NE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054819**

API #:	0401300072	Well #:	35-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ward	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	03/02/1964		

B11
South
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054824**

API #:	0401300077	Well #:	4
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	07/03/1963

12
WSW
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054884**

API #:	0401300016	Well #:	42-9
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio-Shellenberger	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	08/29/1963		

Map ID
Direction
Distance

Database EDR ID Number

13
WNW
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054793**

API #:	0401300045	Well #:	43-9
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio-Shellenberger	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	12/08/1963		

14
North
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054783**

API #:	0401300035	Well #:	12-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Garaventa	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	10/17/1963		

C15
ENE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054852**

API #:	0401320124	Well #:	5
Well Status:	Plugged	Well Type:	OG
Operator Name:	Maria L. Andrade	Lease Name:	Andrade
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	04/01/1978

16
SSE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054857**

API #:	0401320105	Well #:	16
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	01/22/1976

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

D17
NNE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054799**

API #:	0401300051	Well #:	11-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Maggiora-Capital Co.	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	08/29/1963		

E18
SSW
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054828**

API #:	0401300081	Well #:	8
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	01/31/1964

D19
NNE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054800**

API #:	0401300052	Well #:	13-10
Well Status:	Plugged	Well Type:	Multi
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Maggiora-Capital Co.	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	11/17/1963		

F20
ESE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054821**

API #:	0401300074	Well #:	2
Well Status:	Plugged	Well Type:	OG
Operator Name:	John Pestana Family Trust	Lease Name:	Davis-Venturini
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	12/17/1965

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

C21
East **OIL_GAS** **CAOG13000054877**
1/4 - 1/2 Mile

API #:	0401320013	Well #:	2
Well Status:	Plugged	Well Type:	OG
Operator Name:	Sinco Oil Corp.	Lease Name:	Andrade
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	10/10/1967

G22
SE **OIL_GAS** **CAOG13000054826**
1/4 - 1/2 Mile

API #:	0401300079	Well #:	6
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	08/04/1963

E23
SSW **OIL_GAS** **CAOG13000054768**
1/4 - 1/2 Mile

API #:	0401300020	Well #:	2
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	01/04/1963

F24
ESE **OIL_GAS** **CAOG13000054834**
1/4 - 1/2 Mile

API #:	0401300009	Well #:	1
Well Status:	Plugged	Well Type:	OG
Operator Name:	John Pestana Family Trust	Lease Name:	Davis-Venturini
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	02/20/1963

Map ID
Direction
Distance

Database EDR ID Number

G25
SSE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054882**

API #:	0401300014	Well #:	12
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	Y	SPUD Date:	11/15/1966

26
East
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054883**

API #:	0401300015	Well #:	43-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Sunset Exploration, Inc.	Lease Name:	Ridell
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	02/20/1963

27
West
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054792**

API #:	0401300044	Well #:	41-9
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio-Shellenberger	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	Y
SPUD Date:	03/14/1963		

C28
ENE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054774**

API #:	0401300026	Well #:	42-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Sunset Exploration, Inc.	Lease Name:	Arata
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	03/28/1963

Map ID
Direction
Distance

Database EDR ID Number

H29
South **OIL_GAS** **CAOG13000054822**
1/4 - 1/2 Mile

API #:	0401300075	Well #:	1
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	07/10/1962

H30
SSE **OIL_GAS** **CAOG13000054856**
1/4 - 1/2 Mile

API #:	0401320085	Well #:	15
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	06/01/1972

31
NNW **OIL_GAS** **CAOG13000054784**
1/4 - 1/2 Mile

API #:	0401300036	Well #:	14-10
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Garaventa	Field Name:	Brentwood (ABD)
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	11/06/1963		

32
ENE **OIL_GAS** **CAOG13000054775**
1/4 - 1/2 Mile

API #:	0401300027	Well #:	44-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Sunset Exploration, Inc.	Lease Name:	Arata
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	10/23/1963

Map ID
Direction
Distance

Database EDR ID Number

33
North **OIL_GAS** **CAOG13000054801**
1/4 - 1/2 Mile

API #:	0401300053	Well #:	33X-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Maggiora-Capital Co.	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	05/07/1966		

I34
SE **OIL_GAS** **CAOG13000054823**
1/4 - 1/2 Mile

API #:	0401300076	Well #:	3
Well Status:	Plugged	Well Type:	Multi
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	01/26/1963

35
SSW **OIL_GAS** **CAOG13000054830**
1/4 - 1/2 Mile

API #:	0401300083	Well #:	10
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	03/09/1965

36
WNW **OIL_GAS** **CAOG13000054789**
1/4 - 1/2 Mile

API #:	0401300041	Well #:	4-9
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio-Shellenberger	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	07/06/1962		

Map ID
Direction
Distance

Database EDR ID Number

J37
NE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054878**

API #:	0401320008	Well #:	1
Well Status:	Plugged	Well Type:	OG
Operator Name:	Allied Energy Corp.	Lease Name:	Transamerica-Maggiora
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	07/31/1967

38
NNE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054802**

API #:	0401300054	Well #:	43X-10
Well Status:	Plugged	Well Type:	DH
Operator Name:	Shell Western E&P Inc.	Lease Name:	Maggiora-Capital Co.
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	12/14/1965

39
SW
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054788**

API #:	0401300040	Well #:	2-16
Well Status:	Plugged	Well Type:	INJ
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio-Shellenberger	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	12/01/1962		

40
SSE
1/4 - 1/2 Mile

OIL_GAS **CAOG13000054873**

API #:	0401320019	Well #:	13
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	03/15/1968

Map ID
Direction
Distance

Database EDR ID Number

J41
NE
1/2 - 1 Mile

OIL_GAS **CAOG13000054874**

API #:	0401320020	Well #:	2
Well Status:	Plugged	Well Type:	OG
Operator Name:	Allied Energy Corp.	Lease Name:	Transamerica-Maggiora
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	03/20/1968

42
ESE
1/2 - 1 Mile

OIL_GAS **CAOG13000054808**

API #:	0401300060	Well #:	4-10
Well Status:	Plugged	Well Type:	OG
Operator Name:	Shell Western E&P Inc.	Lease Name:	Ridell
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	12/19/1962

43
NW
1/2 - 1 Mile

OIL_GAS **CAOG13000054787**

API #:	0401300039	Well #:	21-9
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	04/14/1964		

44
SSW
1/2 - 1 Mile

OIL_GAS **CAOG13000054791**

API #:	0401300043	Well #:	22-16
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio-Shellenberger	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	09/11/1963		

Map ID
Direction
Distance

Database EDR ID Number

K45
ENE
1/2 - 1 Mile

OIL_GAS **CAOG13000054866**

API #:	0401320045	Well #:	4
Well Status:	Plugged	Well Type:	OG
Operator Name:	Maria L. Andrade	Lease Name:	Andrade
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	03/26/1969

46
South
1/2 - 1 Mile

OIL_GAS **CAOG13000054831**

API #:	0401300084	Well #:	11
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	10/11/1965

I47
SE
1/2 - 1 Mile

OIL_GAS **CAOG13000054829**

API #:	0401300082	Well #:	9
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	11/17/1964

K48
ENE
1/2 - 1 Mile

OIL_GAS **CAOG13000054881**

API #:	0401300601	Well #:	2007-1
Well Status:	Plugged	Well Type:	OG
Operator Name:	Unknown Operator	Lease Name:	Unknown Conductor
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	05/17/2007

Map ID
Direction
Distance

Database EDR ID Number

K49
ENE
1/2 - 1 Mile

OIL_GAS **CAOG13000054876**

API #:	0401320012	Well #:	1
Well Status:	Plugged	Well Type:	OG
Operator Name:	Maria L. Andrade	Lease Name:	Andrade
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	12/07/1967

K50
ENE
1/2 - 1 Mile

OIL_GAS **CAOG13000054869**

API #:	0401320032	Well #:	3
Well Status:	Plugged	Well Type:	OG
Operator Name:	Maria L. Andrade	Lease Name:	Andrade
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	07/11/1968

51
SE
1/2 - 1 Mile

OIL_GAS **CAOG13000054825**

API #:	0401300078	Well #:	5
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	07/22/1963

52
East
1/2 - 1 Mile

OIL_GAS **CAOG13000054862**

API #:	0401320056	Well #:	1
Well Status:	Plugged	Well Type:	OG
Operator Name:	Sinco Oil Corp.	Lease Name:	Ridell
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	Y	SPUD Date:	10/06/1969

Map ID
Direction
Distance

Database EDR ID Number

53
North
1/2 - 1 Mile

OIL_GAS **CAOG13000054778**

API #:	0401300030	Well #:	1-10
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Production Specialties Company		
Lease Name:	Continente	Field Name:	Brentwood (ABD)
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	11/01/1962		

54
ESE
1/2 - 1 Mile

OIL_GAS **CAOG13000054870**

API #:	0401320028	Well #:	1
Well Status:	Plugged	Well Type:	DH
Operator Name:	J. L. Davis	Lease Name:	Ridell Unit
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	06/08/1968

55
ENE
1/2 - 1 Mile

OIL_GAS **CAOG13000054868**

API #:	0401320038	Well #:	1
Well Status:	Plugged	Well Type:	DH
Operator Name:	J. L. Davis	Lease Name:	R. Carlisle
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	10/29/1968

56
ESE
1/2 - 1 Mile

OIL_GAS **CAOG13000054781**

API #:	0401300033	Well #:	21-15
Well Status:	Plugged	Well Type:	OG
Operator Name:	Shell Western E&P Inc.	Lease Name:	Bonde-Bloomfield
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	08/13/1963

Map ID
Direction
Distance

Database EDR ID Number

57
NNW
1/2 - 1 Mile

OIL_GAS **CAOG13000054849**

API #:	0401320340	Well #:	1-10D
Well Status:	Plugged	Well Type:	GAS
Operator Name:	EOG Resources, Inc.	Lease Name:	Sunset-Graham
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	Y	SPUD Date:	03/18/1997

L58
SE
1/2 - 1 Mile

OIL_GAS **CAOG13000054827**

API #:	0401300080	Well #:	7
Well Status:	Plugged	Well Type:	OG
Operator Name:	The Termo Company	Lease Name:	Ginochio
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	10/12/1963

59
SE
1/2 - 1 Mile

OIL_GAS **CAOG13000054776**

API #:	0401300028	Well #:	2-15
Well Status:	Plugged	Well Type:	OG
Operator Name:	Production Specialties Company		
Lease Name:	Bonde-Bloomfield	Field Name:	Brentwood (ABD)
Area Name:	Main	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	06/01/1963		

60
NE
1/2 - 1 Mile

OIL_GAS **CAOG13000054848**

API #:	0401320339	Well #:	1-10D
Well Status:	Plugged	Well Type:	OG
Operator Name:	EOG Resources, Inc.	Lease Name:	Sunset-Nunn
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	Y	SPUD Date:	02/11/1997

Map ID
Direction
Distance

Database EDR ID Number

61
WSW
1/2 - 1 Mile

OIL_GAS **CAOG13000054790**

API #:	0401300042	Well #:	21-16
Well Status:	Plugged	Well Type:	DH
Operator Name:	Shell Western E&P Inc.	Lease Name:	Ginochio-Shellenberger
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	07/17/1963

62
East
1/2 - 1 Mile

OIL_GAS **CAOG13000054798**

API #:	0401300050	Well #:	41-10
Well Status:	Plugged	Well Type:	DH
Operator Name:	Shell Western E&P Inc.	Lease Name:	Lea
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	01/17/1963

L63
SE
1/2 - 1 Mile

OIL_GAS **CAOG13000054770**

API #:	0401300022	Well #:	3
Well Status:	Plugged	Well Type:	OG
Operator Name:	John Pestana Family Trust	Lease Name:	Tom Davis et al
Field Name:	Brentwood (ABD)	Area Name:	Main
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	08/13/1963

64
NW
1/2 - 1 Mile

OIL_GAS **CAOG13000054880**

API #:	0401320005	Well #:	22-9
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio	Field Name:	Brentwood (ABD)
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	07/07/1967		

Map ID
Direction
Distance

Database EDR ID Number

65
WNW
1/2 - 1 Mile

OIL_GAS **CAOG13000054864**

API #:	0401320053	Well #:	1
Well Status:	Plugged	Well Type:	DH
Operator Name:	Sinco Oil Corp.	Lease Name:	Williamson
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	Y	SPUD Date:	07/23/1969

66
NW
1/2 - 1 Mile

OIL_GAS **CAOG13000054786**

API #:	0401300038	Well #:	2-9
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio	Field Name:	Brentwood (ABD)
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	06/16/1962		

M67
ENE
1/2 - 1 Mile

OIL_GAS **CAOG13000202233**

API #:	0401320337	Well #:	1-11D
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Sunset Exploration, Inc.	Lease Name:	Sunset-Castello
Field Name:	River Break Gas	Area Name:	South
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	Y	SPUD Date:	08/29/1996

M68
ENE
1/2 - 1 Mile

OIL_GAS **CAOG13000202277**

API #:	0401320349	Well #:	1-11
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Production Specialties Company		
Lease Name:	Sunset Cabo	Field Name:	River Break Gas
Area Name:	South	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	11/17/1998		

Map ID
Direction
Distance

Database EDR ID Number

69
WSW
1/2 - 1 Mile

OIL_GAS **CAOG13000054785**

API #:	0401300037	Well #:	1-16
Well Status:	Plugged	Well Type:	OG
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Ginochio	Field Name:	Brentwood (ABD)
Area Name:	West	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	05/17/1963		

M70
ENE
1/2 - 1 Mile

OIL_GAS **CAOG13000202244**

API #:	0401320188	Well #:	1
Well Status:	Plugged	Well Type:	DH
Operator Name:	Venada National	Lease Name:	Sandhill
Field Name:	River Break Gas	Area Name:	South
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	06/05/1982

71
West
1/2 - 1 Mile

OIL_GAS **CAOG13000054811**

API #:	0401300064	Well #:	33-9
Well Status:	Plugged	Well Type:	DH
Operator Name:	Shell Western E&P Inc.	Lease Name:	Sullenger
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	04/03/1964

72
WNW
1/2 - 1 Mile

OIL_GAS **CAOG13000054845**

API #:	0401320212	Well #:	1
Well Status:	Plugged	Well Type:	DH
Operator Name:	Venturini Associates Inc.	Lease Name:	Williamson
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	Y	SPUD Date:	08/27/1983

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

73
NW
1/2 - 1 Mile

OIL_GAS **CAOG13000054796**

API #:	0401300048	Well #:	4-4
Well Status:	Plugged	Well Type:	OG
Operator Name:	Shell Western E&P Inc.	Lease Name:	Heidorn
Field Name:	Brentwood (ABD)	Area Name:	Any Area
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	05/30/1962

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94513	5	0

Federal EPA Radon Zone for CONTRA COSTA County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for CONTRA COSTA COUNTY, CA

Number of sites tested: 55

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.760 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.300 pCi/L	100%	0%	0%
Basement	0.525 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX B

Old Republic Title Company

Preliminary Title Report

OLD REPUBLIC TITLE COMPANY

1000 Burnett Ave, Suite 400
Concord, CA 94520
(925) 687-7880 Fax: (925) 687-4836

PRELIMINARY REPORT

21ST UPDATE

WEST COAST HOM BUILDERS, INC.
4021 PORT CHICAGO HIGHWAY
CONCORD, CA 94520

Our Order Number 274337-DJ

When Replying Please Contact:

Donna Jones
DonnaJ@ortc.com
(925) 687-7880

Property Address:

Proposed Subdivision 8506, Bridlegate , Brentwood, CA

In response to the above referenced application for a policy of title insurance, OLD REPUBLIC TITLE COMPANY, as issuing Agent of Old Republic National Title Insurance Company, hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy or Policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said policy forms.

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said Policy or Policies are set forth in Exhibit I attached. The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. Limitations on Covered Risks applicable to the Homeowner's Policy of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Exhibit I. Copies of the Policy forms should be read. They are available from the office which issued this report.

Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Exhibit I of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.
It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects, and encumbrances affecting title to the land.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

Dated as of March 17, 2020, at 7:30 AM

OLD REPUBLIC TITLE COMPANY
For Exceptions Shown or Referred to, See Attached

The form of policy of title insurance contemplated by this report is:

CLTA Standard Coverage Policy -1990. A specific request should be made if another form or additional coverage is desired.

The estate or interest in the land hereinafter described or referred or covered by this Report is:

a FEE as to Parcel One and an EASEMENT as to Parcel Two.

Title to said estate or interest at the date hereof is vested in:

WEST COAST HOME BUILDERS, INC., a California corporation

The land referred to in this Report is situated in the County of Contra Costa, City of Brentwood, State of California, and is described as follows:

PARCEL ONE:

The Southwest 1/4 of Section 10, Township 1 North, Range 2 East, Mount Diablo Base and Meridian.

EXCEPTING THEREFROM:

1. Rights reserved in the Deed from Barbara Ann Ward, Executrix of the Estate of Robert Roger Ward, alias, deceased, recorded June 2, 1967, Book 5381, Official Records, Page 63, as follows:

"An undivided one-half (1/2) interest of all oil, gas, casinghead gasoline and other hydrocarbon and mineral substances under said land without right of entry upon the surface of said lands for the purpose of exploring, taking, removing, disposing, mining and operating for oil, gas, and other hydrocarbon and mineral substances."

2. Rights reserved in the Deed from John Stanley Ward, et ux, recorded June 2, 1967, Book 5381, Official Records, Page 66, as follows:

"An undivided one-half (1/2) interest of all oil, gas, casinghead gasoline and other hydrocarbon and mineral substances under said land without right of entry upon the surface of said lands for the purpose of exploring, taking, removing, disposing, mining and operating for oil, gas, and other hydrocarbon and mineral substances."

3. That portion thereof described as Parcel 1 in the Final Order of Condemnation to Contra Costa Water District, recorded November 14, 1995, in Official Records, under recorder's Series No. 95-197781.

4. All that portion described in that Final Order of Condemnation to State Route 4 Bypass Authority, recorded January 31, 2003, in Official Records, under Recorder's Series No. 2003-49906, and as later quitclaimed State Route 4 Bypass Authority, a Joint Exercise of Powers Agency to the City of Brentwood, a municipal corporation of the State of California, its successors and assigns, by instrument recorded May 21, 2013, Series No. 2013-0128598, Official Records.

5. The interest conveyed to the City of Brentwood by deed recorded March 20, 2007, in Official Records, under Recorder's Series No. 2007-80685.

PARCEL TWO:

The rights reserved in the Final Order of Condemnation to Contra Costa Water District, recorded November 14, 1995 under recorders' Series No. 95-197781, as follows:

The right to use the surface of the property for ingress and egress, inclusive of the right to pave the surface and plant crops with shallow root structures; however, said owner shall not be permitted to grade the property being acquired herein for the water pipeline or plant shrubs or trees with root structures which could impair the water pipeline, nor perform any other activity which will be detrimental to the facilities being installed, which property is described as follows:

That certain parcel of land crossing the southwest quarter of section 10, Township 1 North, range 2 East of the M.D.G.M. as the same is shown on the record of survey filed March 13, 1991 in Book 97 of Land Survey Maps, at Page 34, in the office of the Contra Costa County Recorder, being all of said southwest quarter of said section 10 lying easterly of the following described line:

Beginning at the northeast corner of said southwest quarter of section 10, thence along the northerly boundary of said quarter section, N89° 28' 43" W (record) 85.55 feet more or less, to the true point of beginning of the line herein described, hereinafter referred to as "Point A", said point having state plane coordinates of Y=529,307.45 feet, X=1,642,207.79 feet; thence S00° 53'14" W 268.62 feet to the Easterly line of a 75' wide Pacific Gas and Electric right of way; thence, along said easterly line of said 75' wide Pacific Gas and Electric right of way, S19° 56' 13" E 239.57 feet to the easterly line of said southwest quarter, section 10 and the terminus of the line herein described: said terminus having state plane coordinates of Y=528,813.65 feet, X=1,642,285.32 feet.

(Being APN 019-082-007)

At the date hereof exceptions to coverage in addition to the Exceptions and Exclusions in said policy form would be as follows:

1. Taxes and assessments, general and special, for the fiscal year 2020 - 2021, a lien, but not yet due or payable.

2. Taxes and assessments, general and special, for the fiscal year 2019 - 2020, as follows:

Assessor's Parcel No	:	019-082-007	
Code No.	:	10-046	
1st Installment	:	$155,198.44	Marked Paid
2nd Installment	:	$155,198.44	NOT Marked Paid
Land	:	$3,493,243.00	
Imp. Value	:	$0.00	
Exemption	:	$0.00	

3. The lien of supplemental taxes, if any, assessed pursuant to the provisions of Section 75, et seq., of the Revenue and Taxation Code of the State of California.

4. Assessments, included with taxes, for Assessment District No. 2006-1, a notice of which was recorded as follows:

Instrument Entitled	:	Notice of Assessment
By	:	City of Brentwood
Recorded	:	July 18, 2006 in Official Records, under Recorder's Serial Number 2006-227054

NOTE: The current annual amount levied against this land is $257,289.64.

5. Assessments that may be levied, as follows:

For/By : City of Brentwood CFD #5

Disclosed by Amended Assessment District Map

6. Rights of the public, County and/or City, in and to that portion of said land lying within the lines of SAND CREEK ROAD and SAN JOSE AVENUE.

7. An easement affecting that portion of said land and for the purposes stated herein and incidental purposes as provided in the following

Instrument	:	Grant of Right of Way
Granted to	:	Great Western Power Company of California, a California corporation
For	:	Electric transmission lines and for telephone purposes
Recorded	:	July 5th, 1930 in Book 226 of Official Records, Page 387
Affects	:	The exact location is not disclosed of record

8. An easement affecting that portion of said land and for the purposes stated herein and incidental purposes as provided in the following

Instrument	:	Deed
Granted to	:	Pacific Gas and Electric Company, a California corporation
For	:	Pipelines
Recorded	:	June 27th, 1947 in Book 1097 of Official Records, Page 495
Affects	:	A portion, 10 feet in width

9. An easement affecting that portion of said land and for the purposes stated herein and incidental purposes as provided in the following

Instrument	:	Deed
Granted to	:	Pacific Gas and Electric Company, a California corporation
For	:	Electric transmission lines
Recorded	:	July 13th, 1950 in Book 1593 of Official Records, Page 533
Affects	:	A northeastern portion of said land

10. An easement affecting that portion of said land and for the purposes stated herein and incidental purposes as provided in the following

Instrument	:	Deed
Granted to	:	Pacific Gas and Electric Company, a California corporation
For	:	Pipelines
Recorded	:	July 3rd, 1962 in Book 4152 of Official Records, Page 326
Affects	:	Portions

11. Deed of Trust to secure any indebtedness incurred under that certain Revolving Credit Agreement dated September 1, 1983, as said Credit Agreement is modified and extended by various agreements appearing of record and executed by the several record owners of the properties involved:

Trustor/Borrower	:	West Coast Home Builders, Inc., a California corporation
Trustee	:	American Securities Company, a corporation
Beneficiary/Lender	:	Wells Fargo Bank, N.A., a national banking association
Dated	:	October 6, 1998
Recorded	:	October 19, 1998, Recorder's Series No. 98-257576
Loan No.	:	02190W-135
Returned to	:	Wells Fargo Bank, N.A., 2835 Mitchell Dr., Suite 101, Walnut Creek, CA 94598 Affects this and other property.

12. An easement affecting that portion of said land and for the purposes stated herein and incidental purposes as provided in the following

Instrument	:	Easement Deed
Granted to	:	City of Brentwood, a municipal corporation
For	:	Water Pipeline purposes, 15 feet in width and temporary construction easement, 35 feet in width
Recorded	:	December 9th, 1999 in Official Records, under Recorder's Serial Number 1999-318402
Affects	:	Portions

13. Release and relinquishment of abutter's or access rights to and from State Highway 4, upon which premises abuts, as follows:

Instrument	:	Final Order of Condemnation
To	:	State Route 4 Bypass Authority, a joint exercise of powers entity
Dated	:	January 6, 2003
Recorded	:	January 31, 2003 in Official Records under Recorder's Serial Number 2003-0049906

14. Oil and Gas Lease for and upon the terms, covenants and conditions contained or referred to therein,

Dated	:	December 10, 2012
Lessor	:	Barbara Ann Ward
Lessee	:	West Coast Land Service
Recorded	:	February 28, 2013 in Official Records under Recorder's Serial Number 2013-0053267

NOTE: The Lessee's interest under said lease was assigned of record,

From	:	West Coast Land Service
To	:	Orchard E&P, LLC, a California limited liability company
Recorded	:	September 30, 2014 in Official Records under Recorder's Serial Number 2014-0167278

NOTE: The Lessee's interest under said lease was assigned of record,

From	:	Orchard E&P, LLC, a California limited liability company
To	:	Powerdrive Oil & Gas Company, LLC, a Nevada limited liability company
Recorded	:	December 8, 2016 in Official Records under Recorder's Serial Number 2016-0266586

15. Oil and Gas Lease for and upon the terms, covenants and conditions contained or referred to therein,

Dated	:	December 10, 2012
Lessor	:	Therese May Ward
Lessee	:	West Coast Land Service
Recorded	:	July 10, 2013 in Official Records under Recorder's Serial Number 2013-0172741

NOTE: The Lessee's interest under said lease was assigned of record,

From	:	West Coast Land Service
To	:	Orchard E&P, LLC, a California limited liability company
Recorded	:	September 30, 2014 in Official Records under Recorder's Serial Number 2014-0167278

NOTE: The Lessee's interest under said lease was assigned of record,

From	:	Orchard E&P, LLC, a California limited liability company
To	:	Powerdrive Oil & Gas Company, LLC, a Nevada limited liability company
Recorded	:	December 8, 2016 in Official Records under Recorder's Serial Number 2016-0266586

16. Any unrecorded and subsisting leases.

---------- Informational Notes ----------

A. The applicable rate(s) for the policy(s) being offered by this report or commitment appears to be section(s) to be determined.

B. NOTE: The last recorded transfer or agreement to transfer the land described herein is as follows:

Instrument Entitled	:	Corporation Grant Deed
By/From	:	Meadow Creek Estates, Inc.
To	:	WEST COAST HOME BUILDERS, INC., a California corporation
Recorded	:	October 19, 1998 in Official Records under Recorder's Serial Number 98-0257575

Exhibit I

CALIFORNIA LAND TITLE ASSOCIATION STANDARD COVERAGE POLICY - 1990 (11/09/18)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses which arise by reason of:

1. (a) Any law, ordinance, or governmental regulation (including but not limited to building or zoning laws, ordinances, or regulations) restricting, regulating, prohibiting, or relating to
   (i) the occupancy, use, or enjoyment of the land;
   (ii) the character, dimensions, or location of any improvement now or hereafter erected on the land;
   (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or
   (iv) environmental protection; or the effect of any violation of these laws, ordinances, or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien, or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.

   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims, or other matters:
   (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;
   (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
   (c) resulting in no loss or damage to the insured claimant;
   (d) attaching or created subsequent to Date of Policy; or
   (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing-business laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any claim, which arises out of the transaction vesting in the insured the estate of interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

EXCEPTIONS FROM COVERAGE

SCHEDULE B - PART I

This policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees, or expenses which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.

   Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material unless such lien is shown by the public records at Date of Policy.

OLD REPUBLIC TITLE

rev. 09/2019

FACTS

WHAT DOES OLD REPUBLIC TITLE DO WITH YOUR PERSONAL INFORMATION?

Why?	Financial companies choose how they share your personal information. Federal law gives consumers the right to limit some but not all sharing. Federal law also requires us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand what we do.
What?	The types of personal information we collect and share depend on the product or service you have with us. This information can include: • Social Security number and employment information • Mortgage rates and payments and account balances • Checking account information and wire transfer instructions When you are no longer our customer, we continue to share your information as described in this notice.
How?	All financial companies need to share customers' personal information to run their everyday business. In the section below, we list the reasons financial companies can share their customers' personal information; the reasons Old Republic Title chooses to share; and whether you can limit this sharing.

Reasons we can share your personal information	Does Old Republic Title share?	Can you limit this sharing?
For our everyday business purposes — such as to process your transactions, maintain your account(s), or respond to court orders and legal investigations, or report to credit bureaus	**Yes**	**No**
For our marketing purposes — to offer our products and services to you	**No**	**We don't share**
For joint marketing with other financial companies	**No**	**We don't share**
For our affiliates' everyday business purposes — information about your transactions and experiences	**Yes**	**No**
For our affiliates' everyday business purposes — information about your creditworthiness	**No**	**We don't share**
For our affiliates to market to you	**No**	**We don't share**
For non-affiliates to market to you	**No**	**We don't share**

Questions	**Go to www.oldrepublictitle.com** (Contact Us)

Who we are	
Who is providing this notice?	Companies with an Old Republic Title name and other affiliates. Please see below for a list of affiliates.

What we do	
How does Old Republic Title protect my personal information?	To protect your personal information from unauthorized access and use, we use security measures that comply with federal law. These measures include computer safeguards and secured files and buildings. For more information, visit http://www.OldRepublicTitle.com/newnational/Contact/privacy.
How does Old Republic Title collect my personal information?	We collect your personal information, for example, when you: • Give us your contact information or show your driver's license • Show your government-issued ID or provide your mortgage information • Make a wire transfer We also collect your personal information from others, such as credit bureaus, affiliates, or other companies.
Why can't I limit all sharing?	Federal law gives you the right to limit only: • Sharing for affiliates' everyday business purposes - information about your creditworthiness • Affiliates from using your information to market to you • Sharing for non-affiliates to market to you State laws and individual companies may give you additional rights to limit sharing. See the "Other important information" section below for your rights under state law.

Definitions	
Affiliates	Companies related by common ownership or control. They can be financial and nonfinancial companies. • Our affiliates include companies with an Old Republic Title name, and financial companies such as Attorneys' Title Fund Services, LLC, Lex Terrae National Title Services, Inc., Mississippi Valley Title Services Company, and The Title Company of North Carolina.
Non-affiliates	Companies not related by common ownership or control. They can be financial and non-financial companies. • Old Republic Title does not share with non-affiliates so they can market to you
Joint marketing	A formal agreement between non-affiliated financial companies that together market financial products or services to you. • Old Republic Title doesn't jointly market.

Other Important Information

Oregon residents only: We are providing you this notice under state law. We may share your personal information (described on page one) obtained from you or others with non-affiliate service providers with whom we contract, such as notaries and delivery services, in order to process your transactions. You may see what personal information we have collected about you in connection with your transaction (other than personal information related to a claim or legal proceeding). To see your information, please click on "Contact Us" at www.oldrepublictitle.com and submit your written request to the Legal Department. You may see and copy the information at our office or ask us to mail you a copy for a reasonable fee. If you think any information is wrong, you may submit a written request online to correct or delete it. We will let you know what actions we take. If you do not agree with our actions, you may send us a statement.

Affiliates Who May be Delivering This Notice

American First Title & Trust Company	**American Guaranty Title Insurance Company**	**Attorneys' Title Fund Services, LLC**	**Compass Abstract, Inc.**	**eRecording Partners Network, LLC**
Genesis Abstract, LLC	**Guardian Consumer Services, Inc.**	**Kansas City Management Group, LLC**	**L.T. Service Corp.**	**Lenders Inspection Company**
Lex Terrae National Title Services, Inc.	**Lex Terrae, Ltd.**	**Mississippi Valley Title Services Company**	**National Title Agent's Services Company**	**Old Republic Branch Information Services, Inc.**
Old Republic Diversified Services, Inc.	**Old Republic Escrow of Vancouver, Inc.**	**Old Republic Exchange Company**	**Old Republic National Title Insurance Company**	**Old Republic Title and Escrow of Hawaii, Ltd.**
Old Republic Title Co.	**Old Republic Title Company of Conroe**	**Old Republic Title Company of Indiana**	**Old Republic Title Company of Nevada**	**Old Republic Title Company of Oklahoma**
Old Republic Title Company of Oregon	**Old Republic Title Company of St. Louis**	**Old Republic Title Company of Tennessee**	**Old Republic Title Information Concepts**	**Old Republic Title Insurance Agency, Inc.**
Old Republic Title, Ltd.	**Republic Abstract & Settlement , LLC**	**Sentry Abstract Company**	**The Title Company of North Carolina**	**Trident Land Transfer Company, LLC**

Updated: January 1, 2020

Privacy Notice for California Consumers

This Privacy Notice for California Consumers supplements the information contained in the Master Privacy Notice for Old Republic Title and applies to consumers that reside in the State of California. The terms used in this Privacy Notice have the same meaning as the terms defined in the California Consumer Privacy Act ("CCPA").

What Personal Information We Collect

In accordance with the CCPA, personal information is information that identifies, relates to, describes, is capable of being associated with, or could reasonably be linked, directly or indirectly, with a particular consumer or household. Personal information does not include:
Information outside the scope of the CCPA such as:

- Health or medical information covered by the Health Insurance Portability Act of 1996 (HIPAA) and the California Confidentiality of Medical Information Act (CMIA).
- Personal Information covered by the Gramm-Leach-Bliley Act (GLBA), the Fair Credit Reporting Act (FCRA), the California Financial Information Privacy Act (FIPA), and the Driver's Privacy Protection Act of 1994,
- Publicly available information that is available from federal, state, or local government records, and
- De-identified or aggregated consumer information.

Please see the chart below to learn what categories of personal information we may have collected about California consumers within the preceding twelve months, the sources of and business purposes for that collection and the third parties with whom the information is shared, if any.

Category	**Examples**	**Collected**	**Sources**	**Business Purpose for Collection**	**Categories of Third Parties with Whom Information is Shared**
Identifiers	Real name, alias, postal address, unique personal	Yes	Consumers, Lenders, Brokers, Attorneys,	Underwriting or providing other products or services, responding to	Service providers associated with the

	identifier, online identifier, Internet protocol address, email address, account name, social security number, driver's license number, passport number or other similar identifiers		Real Estate Agents, and Title Agents associated with the transaction	policyholder/consumer claims, inquiries or complaints, detecting security incidents, protecting against malicious, deceptive, fraudulent, or illegal activity. Other audit or operational purposes.	transaction for a business purpose
Personal information described in California Customer Records statute (Cal. Civ. Code § 1798.80(e))	Name, signature, social security number, physical characteristics or description, address, telephone number, passport number, driver's license or state identification card number, insurance policy number, education, employment, employment history, bank account number, credit card number, debit card number, or any other financial information, medical	Yes	Consumers, Lenders, Brokers, Attorneys, Real Estate Agents, and Title Agents associated with the transaction	Underwriting or providing other products or services, responding to policyholder/consumer claims, inquiries or complaints, detecting security incidents, protecting against malicious, deceptive, fraudulent, or illegal activity. Other audit or operational purposes.	Service providers associated with the transaction for a business purpose

	information, or health insurance information. "Personal information" does not include publicly available information that is lawfully made available to the general public from federal, state, or local government records.				
Characteristics of protected classifications under California or federal law	Age (40 years or older), race, color, ancestry, national origin, citizenship, religions or creed, marital status, medical condition, physical or mental disability, sex (including gender, gender identity, gender expression, pregnancy or childbirth and related medical conditions), sexual orientation, veteran or military status,	Yes	Consumers, Lenders, Brokers, Attorneys, Real Estate Agents, and Title Agents associated with the transaction	Underwriting or providing other products or services, responding to policyholder/consumer claims, inquiries or complaints. Other audit or operational purposes.	Service providers associated with the transaction for a business purpose

	or genetic information (including familial genetic information).				
Internet or other electronic network activity	Browsing history, search history, information about a consumer's interaction with a website, application, or advertisement.	Yes	Consumers, Lenders, Brokers, Attorneys, Real Estate Agents, and Title Agents associated with the transaction	To provide access to certain online services. To understand the interests of visitors to our online services, to support certain features of our site, for navigation and to display certain features more effectively. Detecting security incidents, protecting against malicious, deceptive, fraudulent, or illegal activity. Other audit or operational purposes.	Not Disclosed
Geolocation data	Geographic tracking data, physical location and movements	Yes	Consumers, Lenders, Brokers, Attorneys, Real Estate Agents, and Title Agents associated with the transaction	To provide access to certain online services. To understand the interests of visitors to our online services, to support certain features of our site, for navigation and to display certain features more effectively. Other audit or operational purposes.	Not Disclosed

What Personal Information We Share and Why We Share It

The CCPA requires us to tell you what categories of personal information we “sell” or “disclose.” We do not sell and will not sell your personal information as that term is commonly understood. We also do not sell and will not sell your personal information, including the personal information of persons under 16 years of age, as that term is defined by the CCPA. When it is necessary for a business purpose, we share or disclose your personal information with a service provider, and we enter a contract with the service provider that limits how the information may be used and requires the service provider to protect the confidentiality of the information.

In the preceding twelve months, we have disclosed the following categories of personal information for the following business purposes. Where the personal information is shared with third parties, as that term is defined in the CCPA, the category of the third party is indicated.

Category	**Examples**	**Business Purpose for Disclosure**	**Categories of Third Parties with Whom Information is Shared**
Identifiers	Real name, alias, postal address, unique personal identifier, online identifier, internet protocol address, email address, account name, social security number, driver’s license number, passport number or other similar identifiers	Underwriting or providing other products or services, responding to policyholder/consumer claims, inquiries or complaints, detecting security incidents, protecting against malicious, deceptive, fraudulent, or illegal activity. Other audit or operational purposes.	Service providers associated with the transaction for a business purpose
Personal information described in California Customer	Name, signature, social security number, physical characteristics or description, address, telephone number, passport number, driver’s license or state	Underwriting or providing other products or services, responding to policyholder/consumer	Service providers associated with the transaction for a business

Records statute (Cal. Civ. Code § 1798.80(e))	identification card number, insurance policy number, education, employment, employment history, bank account number, credit card number, debit card number, or any other financial information, medical information, or health insurance information. "Personal information" does not include publicly available information that is lawfully made available to the general public from federal, state, or local government records.	claims, inquiries or complaints, detecting security incidents, protecting against malicious, deceptive, fraudulent, or illegal activity. Other audit or operational purposes.	purpose
Characteristics of protected classifications under California or federal law	Age (40 years or older), race, color, ancestry, national origin, citizenship, religions or creed, marital status, medical condition, physical or mental disability, sex (including gender, gender identity, gender expression, pregnancy or childbirth and related medical conditions), sexual orientation, veteran or military status, or genetic information (including familial genetic information).	Underwriting or providing other products or services, responding to policyholder/consumer claims, inquiries or complaints. Other audit or operational purposes.	Service providers associated with the transaction for a business purpose
Internet or other electronic network activity	Browsing history, search history, information about a consumer's interaction with a website, application, or advertisement.	To provide access to certain online services. To understand the interests of visitors to our online services, to support certain features of our site, for navigation and to display certain features more effectively. Detecting security incidents, protecting against malicious, deceptive, fraudulent, or illegal activity. Other audit or	Not Disclosed

		operational purposes.	
Geolocation data	Geographic tracking data, physical location and movements	To provide access to certain online services. To understand the interests of visitors to our online services, to support certain features of our site, for navigation and to display certain features more effectively. Other audit or operational purposes.	Not Disclosed

We may also transfer to a third party the personal information of a consumer as an asset that is part of a merger, acquisition, bankruptcy, or other transaction in which the third party assumes control of all or part of the business.

Your Rights and Choices

The CCPA provides California consumers with certain rights regarding their personal information. This chart describes those rights and certain limitations to those rights.

Right	What This Means
Notice	At or before the time your personal information is collected, you will be given written notice of the categories of personal information to be collected and the purposes for which the categories of personal information will be used.
Access	At your verifiable request, but no more than twice in a twelve month period, we shall disclose to you: 1) the categories of personal information we have collected about you, 2) the categories of sources for the personal information we collected about you, 3) our business and commercial purpose for collecting or selling your personal information, 4) the categories of third parties with whom we share your personal information, 5) The specific pieces of information we have collected about you, 6) the categories of personal information disclosed for a business purpose, and 7) If we sold personal information, the categories of personal information sold and the categories of third parties to whom it was sold.

Deletion	You have the right to request that we delete any of your personal information that we collected from you, subject to certain exceptions. Once we receive and verify your request, we will delete (and direct our service providers to delete) your personal information from our records unless an exception applies. We may deny your request if retention of the information is necessary for us or our service providers to: • Complete the transaction for which we collected the personal information, provide a good or service that you requested, take actions reasonably anticipated within the context of our ongoing business relationship with you, or otherwise perform our contract with you. • Detect security incidents, protect against malicious, deceptive, fraudulent, or illegal activity, or prosecute those responsible for such activities. • Debug products to identify and repair errors that impair existing intended functionality. • Exercise free speech, ensure the right of another consumer to exercise their free speech rights, or exercise another right provided for by law. • Comply with the California Electronic Communications Privacy Act (Cal. Penal Code §1546 et seq.) • Engage in public or peer reviewed scientific, historical, or statistical research in the public interest that adheres to all other applicable ethics and privacy laws, when the information's deletion may likely render impossible or seriously impair the research's achievement, if you previously provided informed consent. • Enable solely internal uses that are reasonably aligned with consumer expectations based on your relationship with us. • Comply with a legal obligation. • Make other internal and lawful uses of that information that are compatible with the context in which you provided it. • Or if it is the type of personal information that falls outside the scope of the CCPA, (HIPAA, CIMA, GLBA, or publicly available information)
Opt-Out of Sale Opt-In to Sale	With some limitations, you may direct a business that sells personal information to third parties not to sell the personal information to these third parties. A business may not sell the personal information of persons less than sixteen years of age without their affirmative consent, and in the case of those less than thirteen years of age, the consent must come from a parent.
Non-Discrimination	We will not discriminate against you for exercising your rights under the CCPA. Unless otherwise permitted by the CCPA we will not: • Deny you goods or service • Charge you different prices or rates for goods or services, including through granting discounts or other benefits, or imposing penalties • Provide a different level or quality of goods or services • Suggest that you will receive a different price or rate for goods or services or a different level or quality of goods or services

To Exercise Your Rights

To Opt-out of the Sale of Your Personal Information

The CCPA gives consumers the right to direct a business that sells personal information about the consumer to third parties not to sell the consumer's personal information. We do not sell and will not sell your personal information as that term is commonly understood. We also do not sell and will not sell your personal information, as that term is defined by the CCPA.

To Request Access to or Deletion of Your Personal Information

To exercise your access or deletion rights described above, please submit a verifiable consumer request to us by either: Calling us at 1-855-557-8437 or contacting us through our website CCPA Consumer Request.

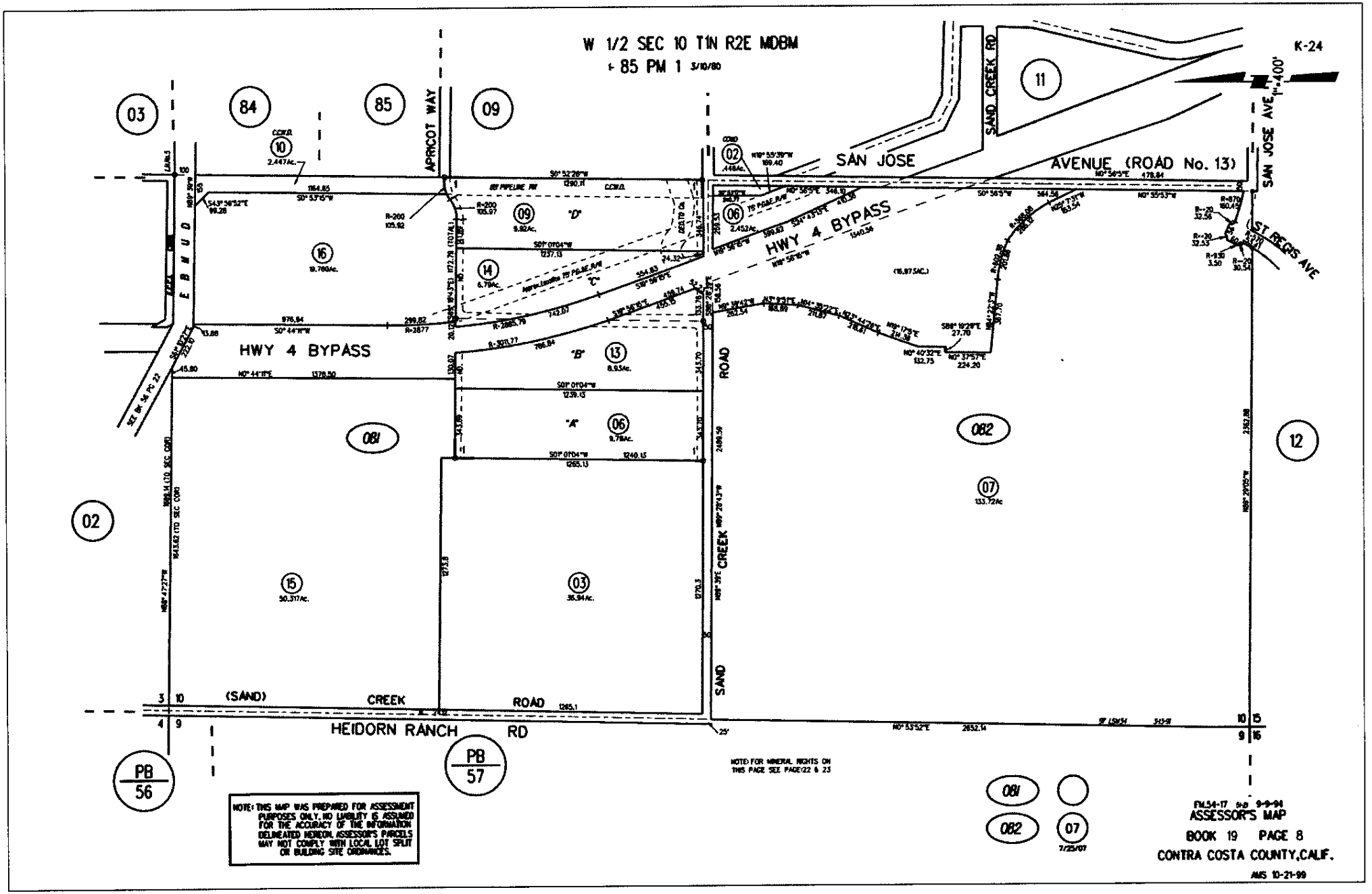
Only you or your representative that you authorize to act on your behalf (Authorized Agent) can make a verifiable consumer request for your personal information. You may also make a request for your minor child. The verifiable request must provide enough information that allows us to reasonably verify you are the person about whom we collected personal information. We cannot respond to your request or provide you with personal information if we cannot verify your identity or authority to make the request and to confirm the personal information relates to you.

We work to respond to a verifiable consumer request within 45 days of its receipt. If we require additional time, we will inform you of the extension period (up to an additional 45 days), and the reason for the extension in writing. If you have an account with us, we will deliver our response to that account. If you do not have an account with us, we will deliver our response by mail or electronically, depending on your preference. The response we provide will also explain any reasons why we cannot comply with a request.

You may only make a consumer request for access twice within a twelve-month period. Any disclosures we provide will apply to the twelve-month period preceding the consumer request's receipt.

Contact Us

If you have any questions regarding our Privacy Notice or practices, please contact us via phone at 1-855-557-8437 or send your written request to: CCPA@oldrepublictitle.com, or Old Republic Title c/o CCPA Consumer Request Group, 275 Battery Street, Suite1500, San Francisco, CA 94111-3334.


W 1/2 SEC 10 T1N R2E MDBM
PM 1 3/10/80
03
84
85
09
11
APRICOT WAY
SAND CREEK RD
SAN JOSE AVE
K-24
SAN JOSE AVENUE (ROAD No. 13)
HWY 4 BYPASS
ST REGIS AVE
EBMUD
SAND CREEK ROAD
SAND CREEK
HEIDORN RANCH RD
(SAND) CREEK ROAD
"A"
"B"
"C"
"D"
081
082
02
12
PB 56
PB 57
NOTE: THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE INFORMATION DELINEATED HEREON. ASSESSOR'S PARCELS MAY NOT COMPLY WITH LOCAL LOT SPLIT OR BUILDING SITE ORDINANCES.
NOTE: FOR MINERAL RIGHTS ON THIS PAGE SEE PAGE 22 & 23
FM 34-17 9-9-94
ASSESSOR'S MAP
BOOK 19 PAGE 8
CONTRA COSTA COUNTY, CALIF.
AMS 10-21-99
7/25/07



APPENDIX C

ENVIRONMENTAL DATA RESOURCES, INC.

Historical Topographic Map Report

Bridlegate

Sand Creek Road and San Jose Ave.

Brentwood, CA 94513

Inquiry Number: 6010925.4

March 16, 2020

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

03/16/20

Site Name:

Bridlegate
Sand Creek Road and San Jos
Brentwood, CA 94513
EDR Inquiry # 6010925.4

Client Name:

Engeo Inc.
2010 Crow Canyon Place
San Ramon, CA 94583
Contact: Brooke Spruit

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Engeo Inc. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# P2020.000.507
Project: Bridle Gate

Coordinates:

Latitude:	37.943197 37° 56' 36" North
Longitude:	-121.746841 -121° 44' 49" West
UTM Zone:	Zone 10 North
UTM X Meters:	610110.99
UTM Y Meters:	4200253.12
Elevation:	205.24' above sea level

Maps Provided:

2012
1978, 1980
1973
1968
1953, 1954
1943
1940
1914, 1916
1912, 1916
1896, 1898

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets



Antioch South
2012
7.5-minute, 24000

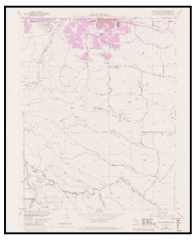


Brentwood
2012
7.5-minute, 24000

1978, 1980 Source Sheets



Brentwood
1978
7.5-minute, 24000
Aerial Photo Revised 1974



Antioch South
1980
7.5-minute, 24000
Aerial Photo Revised 1978

1973 Source Sheets



Antioch South
1973
7.5-minute, 24000
Aerial Photo Revised 1973

1968 Source Sheets



Antioch South
1968
7.5-minute, 24000
Aerial Photo Revised 1968



Brentwood
1968
7.5-minute, 24000
Aerial Photo Revised 1968

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1953, 1954 Source Sheets

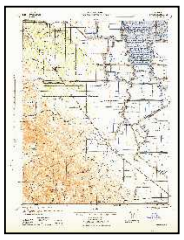


Antioch South
1953
7.5-minute, 24000
Aerial Photo Revised 1949



Brentwood
1954
7.5-minute, 24000
Aerial Photo Revised 1949

1943 Source Sheets

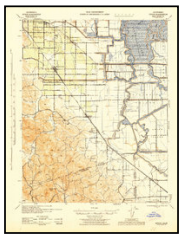


BYRON
1943
15-minute, 62500



Mt. Diablo
1943
15-minute, 62500
Aerial Photo Revised 1937

1940 Source Sheets



Byron
1940
15-minute, 62500
Aerial Photo Revised 1940

1914, 1916 Source Sheets



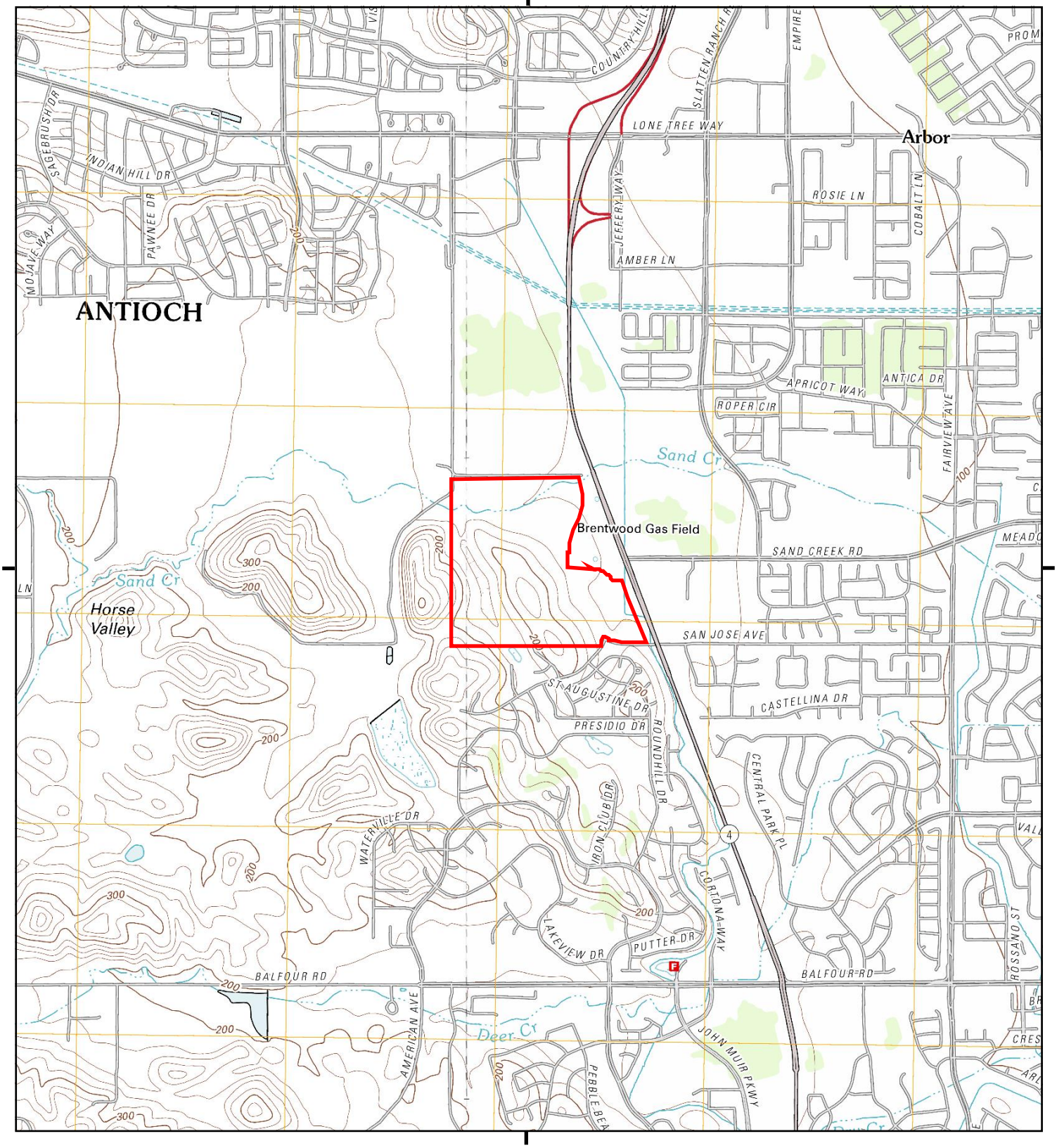
Brentwood
1914
7.5-minute, 31680



Lone Tree Valley
1916
7.5-minute, 31680

Historical Topo Map

2012



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

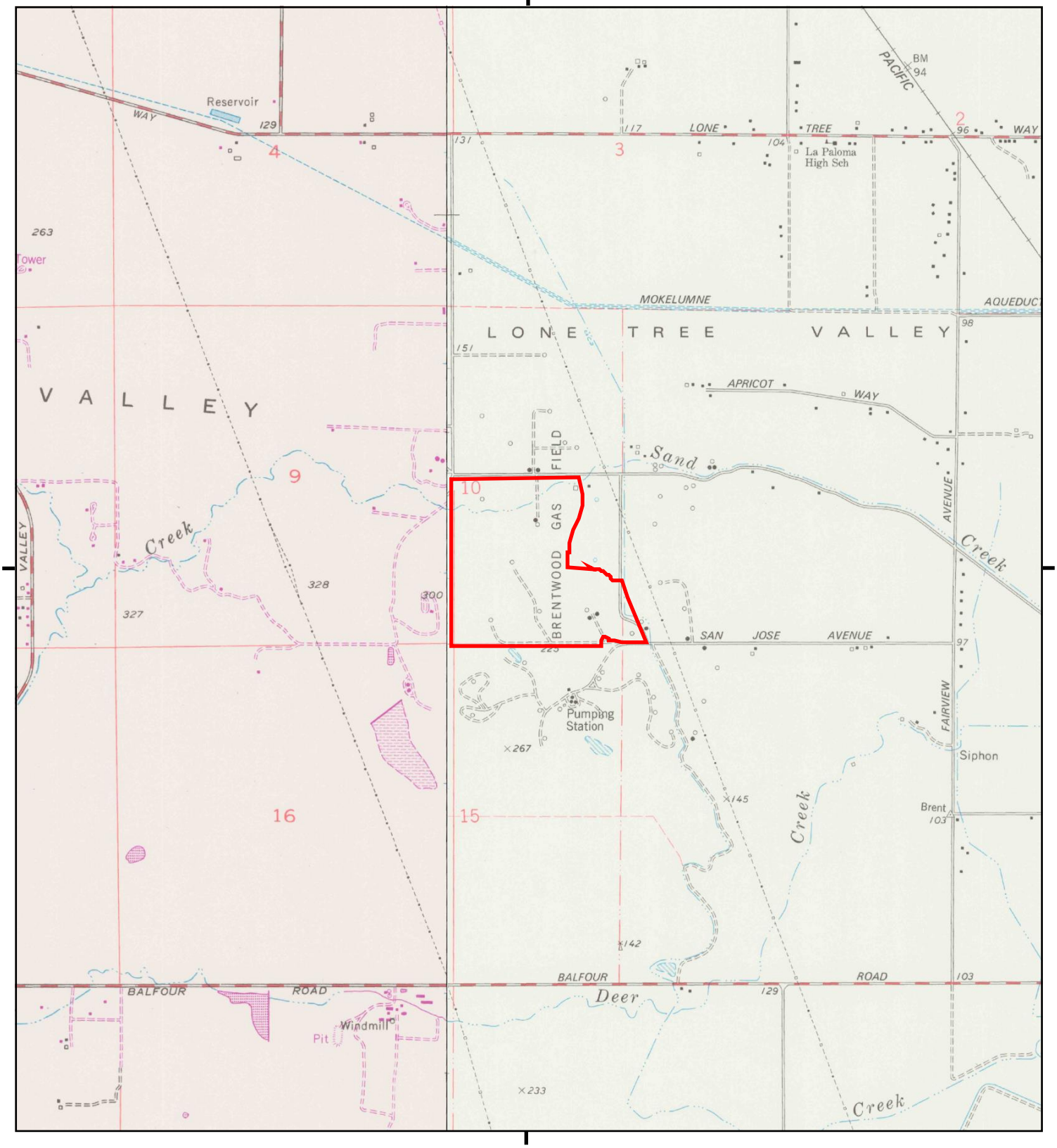
TP, Brentwood, 2012, 7.5-minute
W, Antioch South, 2012, 7.5-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N

Historical Topo Map

1978, 1980



This report includes information from the following map sheet(s).

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NW N NE
W E
SW S SE

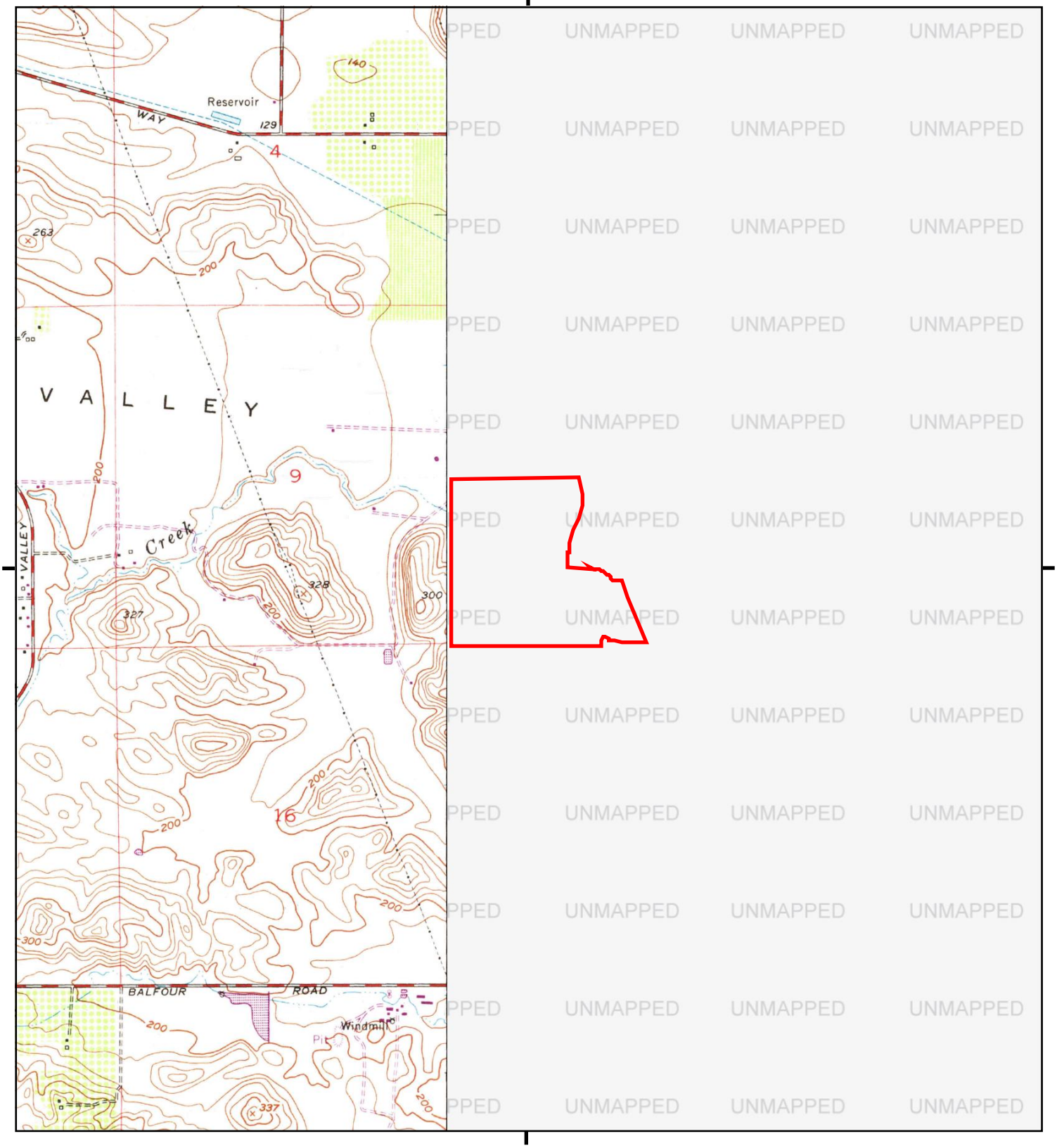
TP, Brentwood, 1978, 7.5-minute
W, Antioch South, 1980, 7.5-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N

Historical Topo Map

1973



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

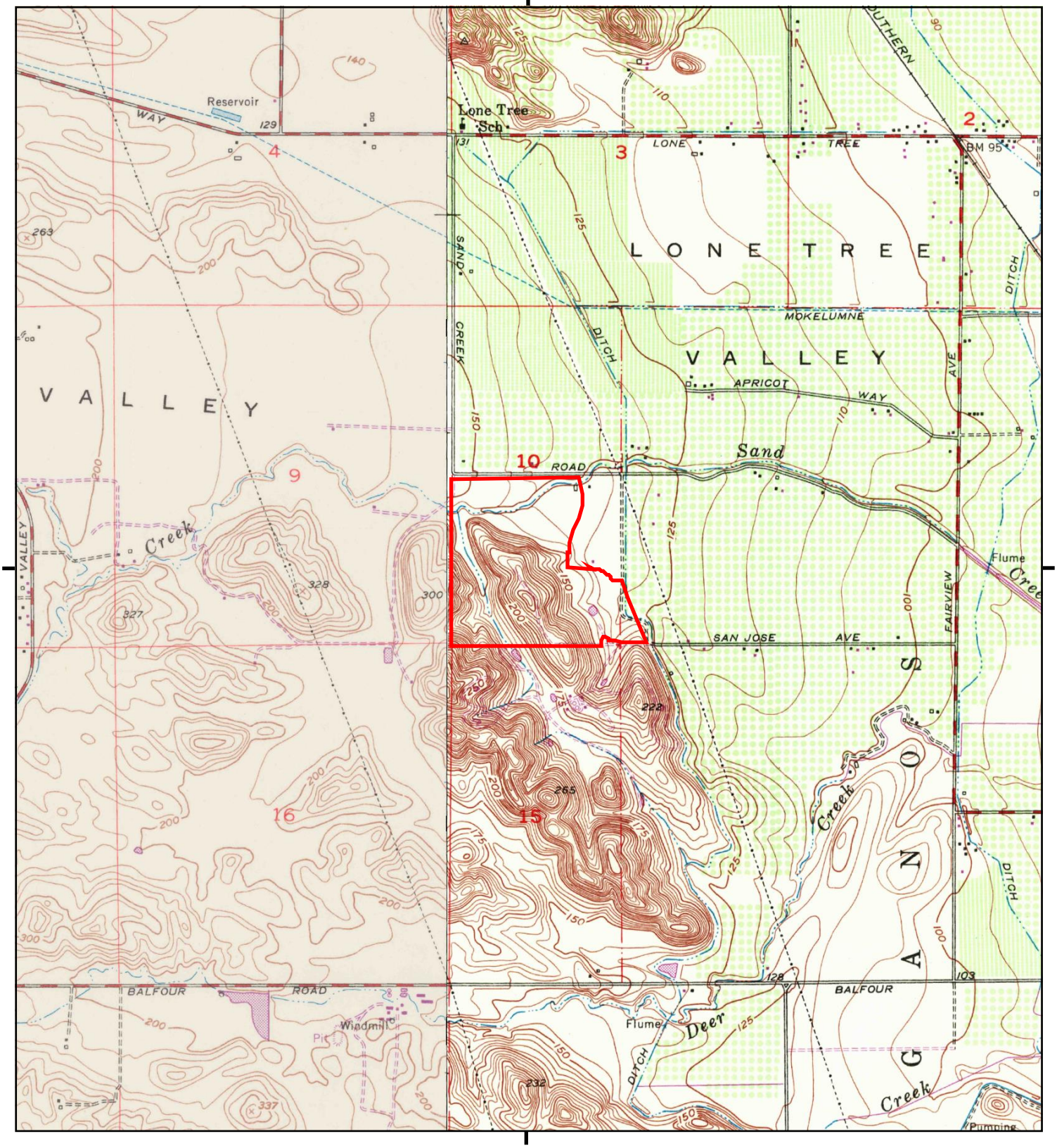
W, Antioch South, 1973, 7.5-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N

Historical Topo Map

1968



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

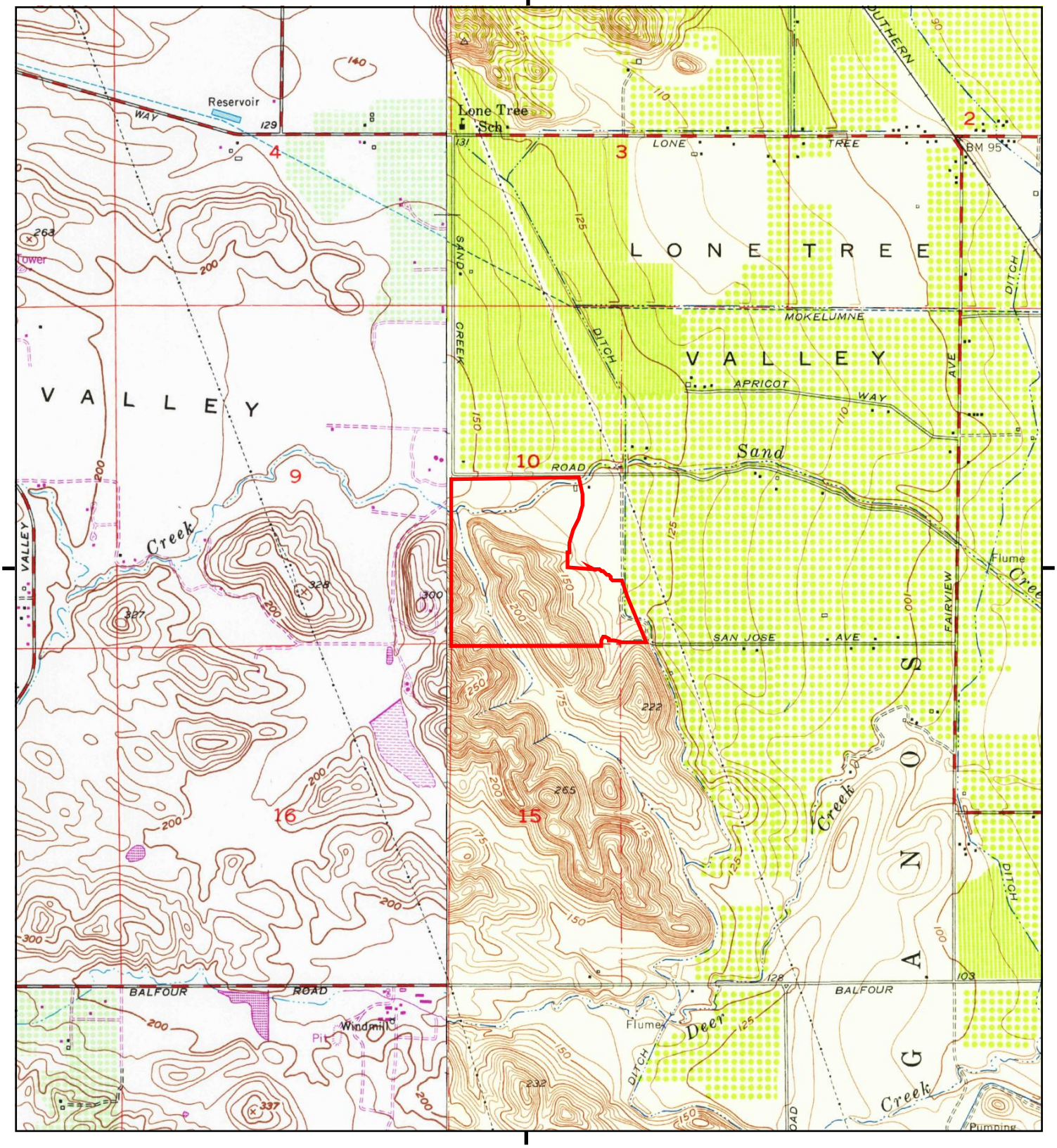
TP, Brentwood, 1968, 7.5-minute
W, Antioch South, 1968, 7.5-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N

Historical Topo Map

1953, 1954



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

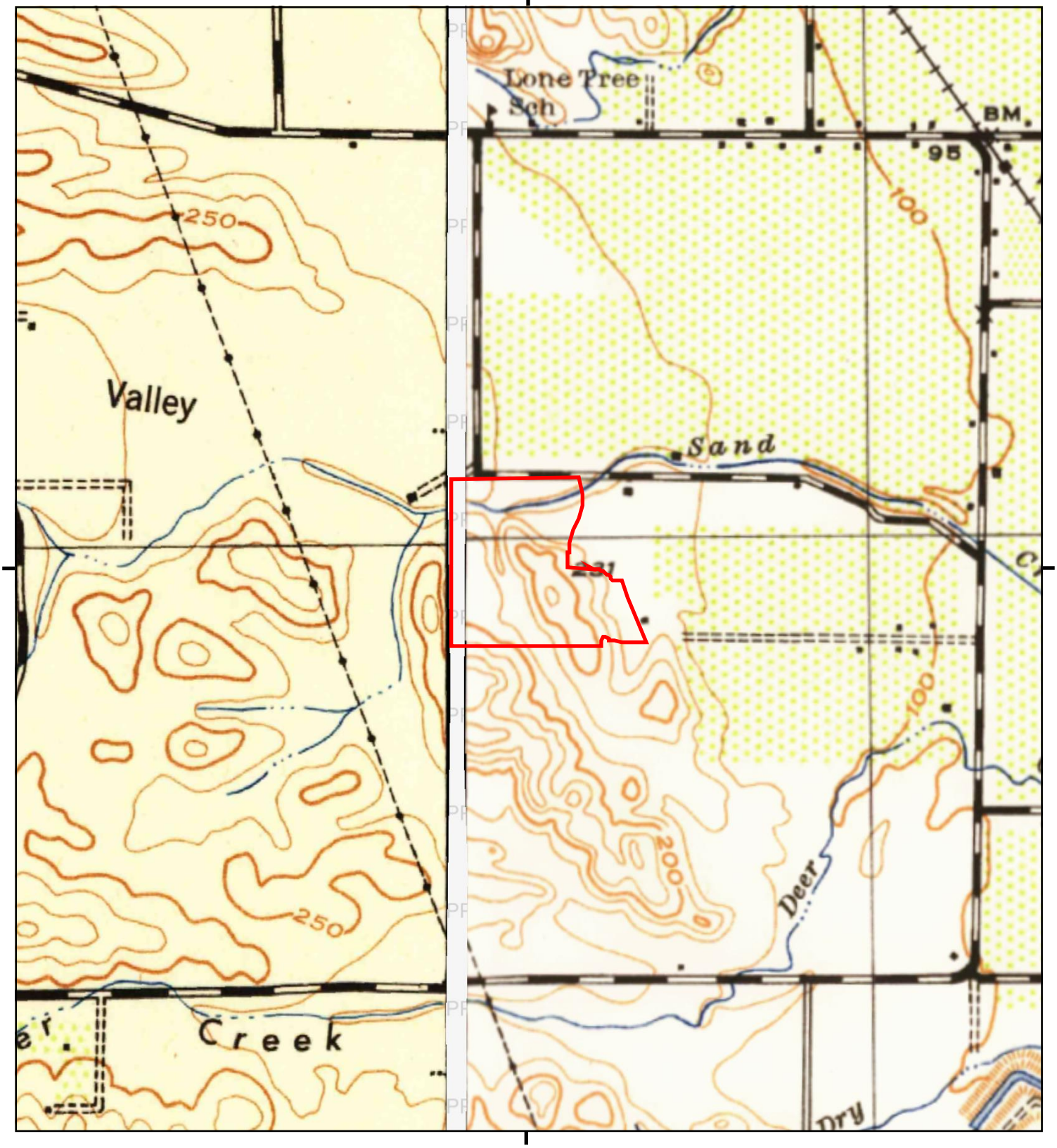
TP, Brentwood, 1954, 7.5-minute
W, Antioch South, 1953, 7.5-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N

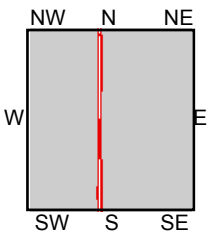
Historical Topo Map

1943



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



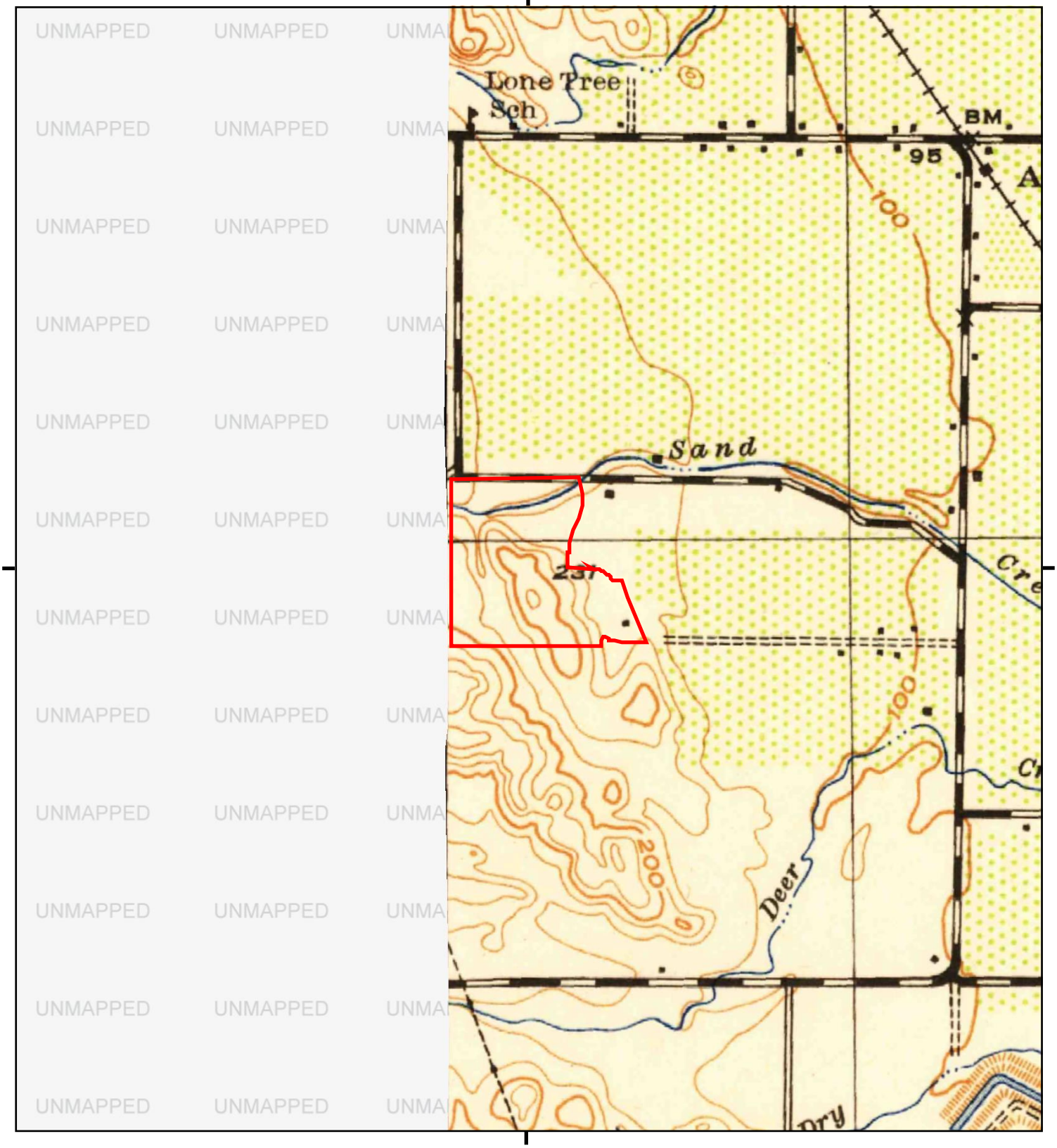
TP, BYRON, 1943, 15-minute
SW, Mt. Diablo, 1943, 15-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N

Historical Topo Map

1940



This report includes information from the following map sheet(s).

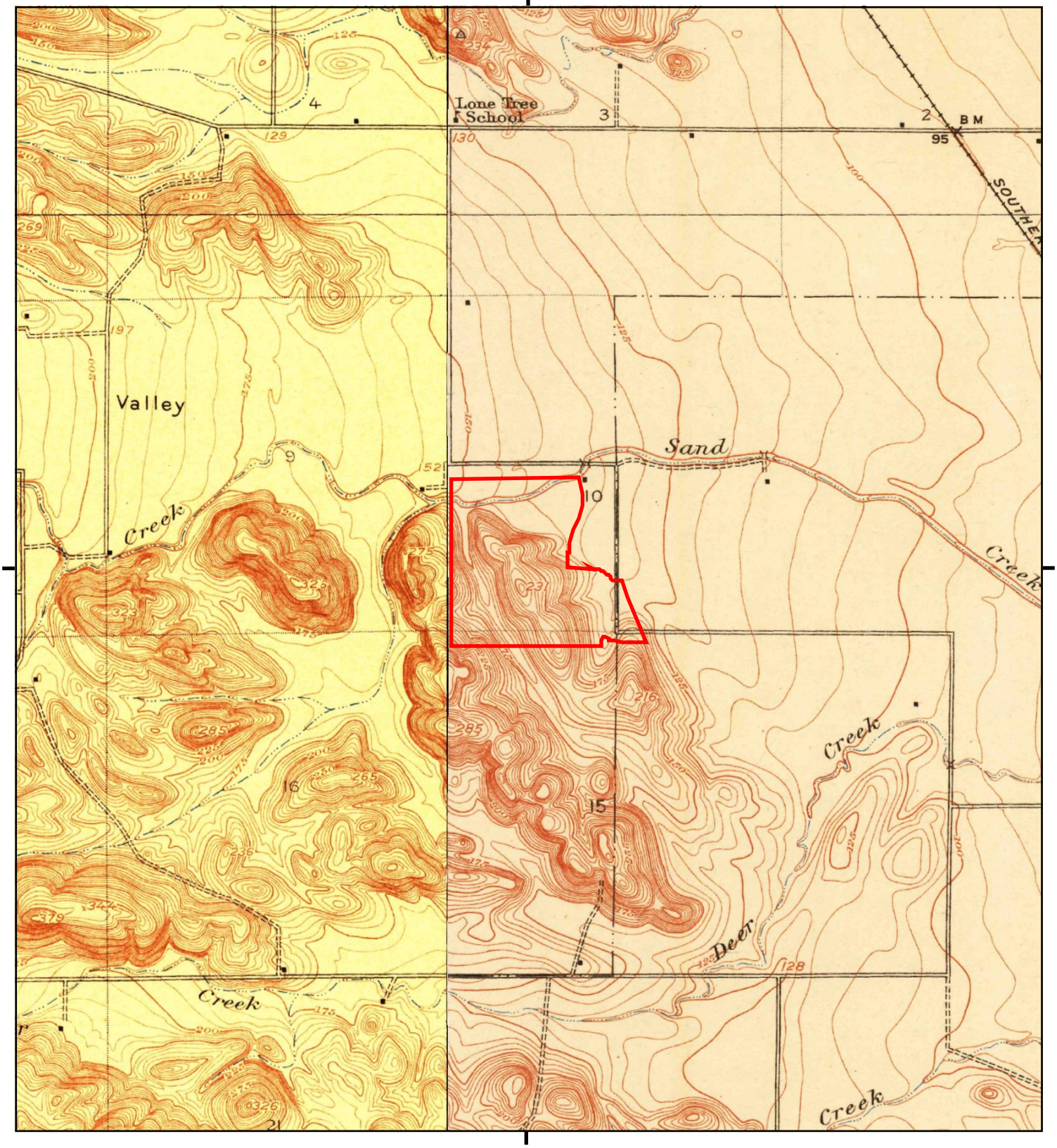
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

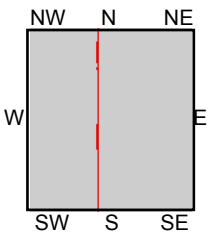
TP, Byron, 1940, 15-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N



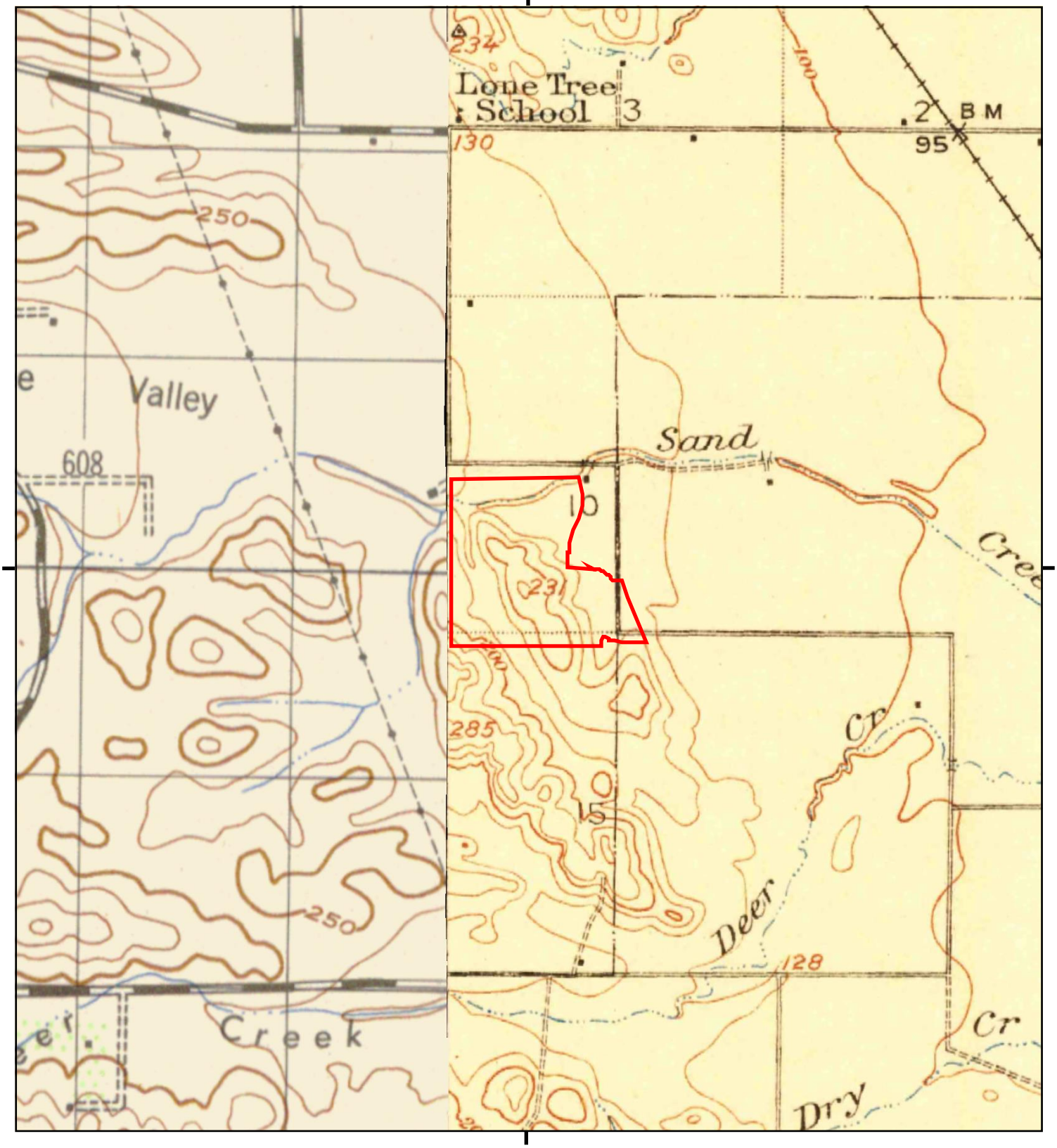
This report includes information from the following map sheet(s).



TP, Brentwood, 1914, 7.5-minute
W, Lone Tree Valley, 1916, 7.5-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N



This report includes information from the following map sheet(s).

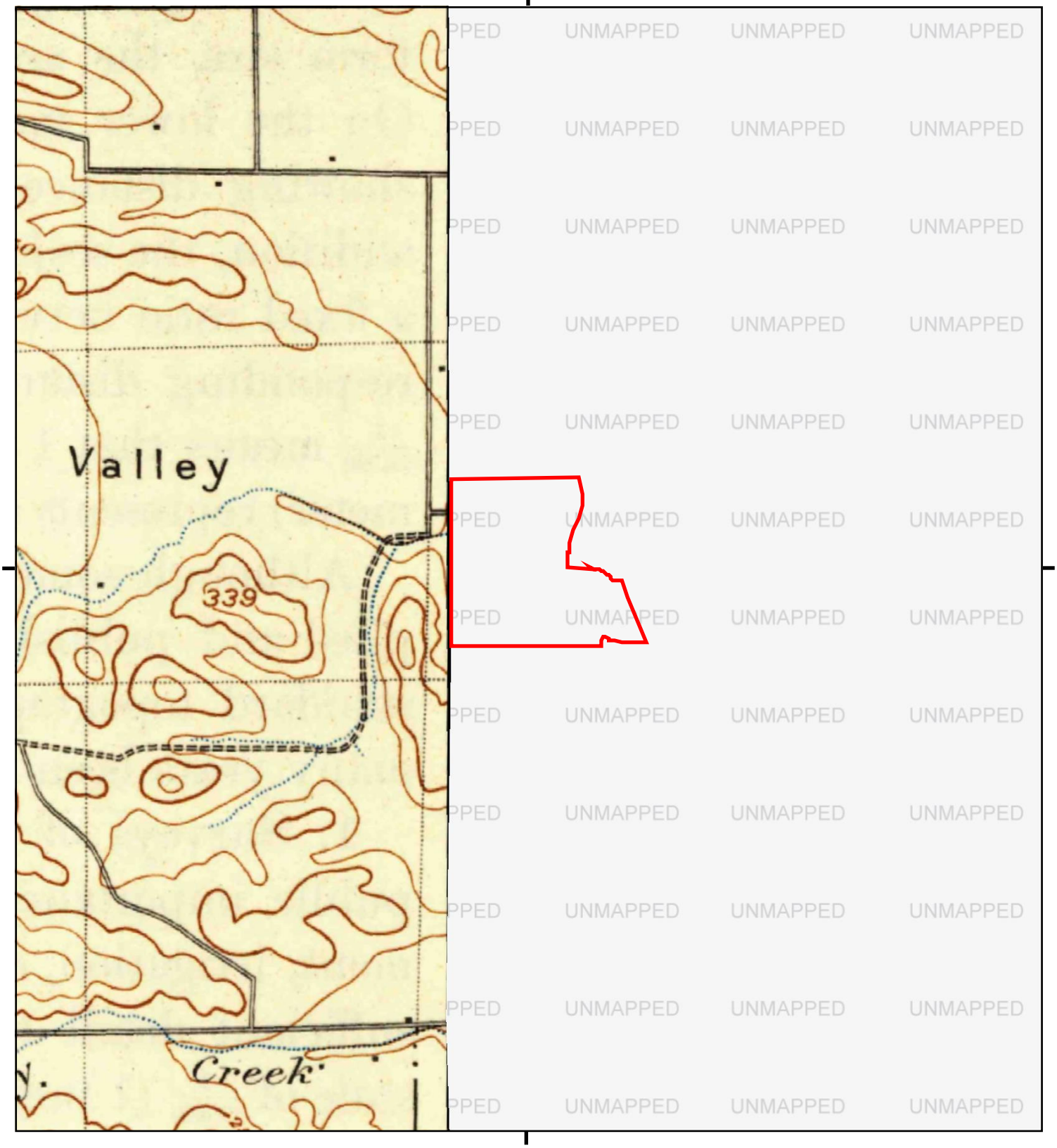
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Byron, 1916, 15-minute
SW, MT. DIABLO, 1912, 15-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

SW, Mt. Diablo, 1896, 15-minute
SW, Mt. Diablo, 1898, 15-minute

SITE NAME: Bridlegate
ADDRESS: Sand Creek Road and San Jose Ave.
Brentwood, CA 94513
CLIENT: Engeo Inc.

N



APPENDIX D

ENVIRONMENTAL DATA RESOURCES, INC.

Aerial Photo Decade Package

Bridlegate

Sand Creek Road and San Jose Ave.

Brentwood, CA 94513

Inquiry Number: 6010925.8

March 16, 2020

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

03/16/20

Site Name:

Bridlegate
Sand Creek Road and San Jos
Brentwood, CA 94513
EDR Inquiry # 6010925.8

Client Name:

Engeo Inc.
2010 Crow Canyon Place
San Ramon, CA 94583
Contact: Brooke Spruit

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1998	1"=500'	Flight Date: August 22, 1998	USDA
1993	1"=500'	Acquisition Date: June 12, 1993	USGS/DOQQ
1984	1"=500'	Flight Date: June 29, 1984	USDA
1982	1"=500'	Flight Date: July 05, 1982	USDA
1979	1"=500'	Flight Date: August 16, 1979	USDA
1966	1"=500'	Flight Date: May 15, 1966	USDA
1963	1"=500'	Flight Date: July 15, 1963	EDR Proprietary Aerial Viewpoint
1959	1"=500'	Flight Date: July 04, 1959	USDA
1950	1"=500'	Flight Date: March 12, 1950	USDA
1949	1"=500'	Flight Date: October 13, 1949	USGS
1939	1"=500'	Flight Date: June 28, 1939	USDA

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

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INQUIRY #: 6010925.8

YEAR: 2016

= 500'

N

EDR



INQUIRY #: 6010925.8

YEAR: 2012

= 500'

N

EDR



INQUIRY #: 6010925.8

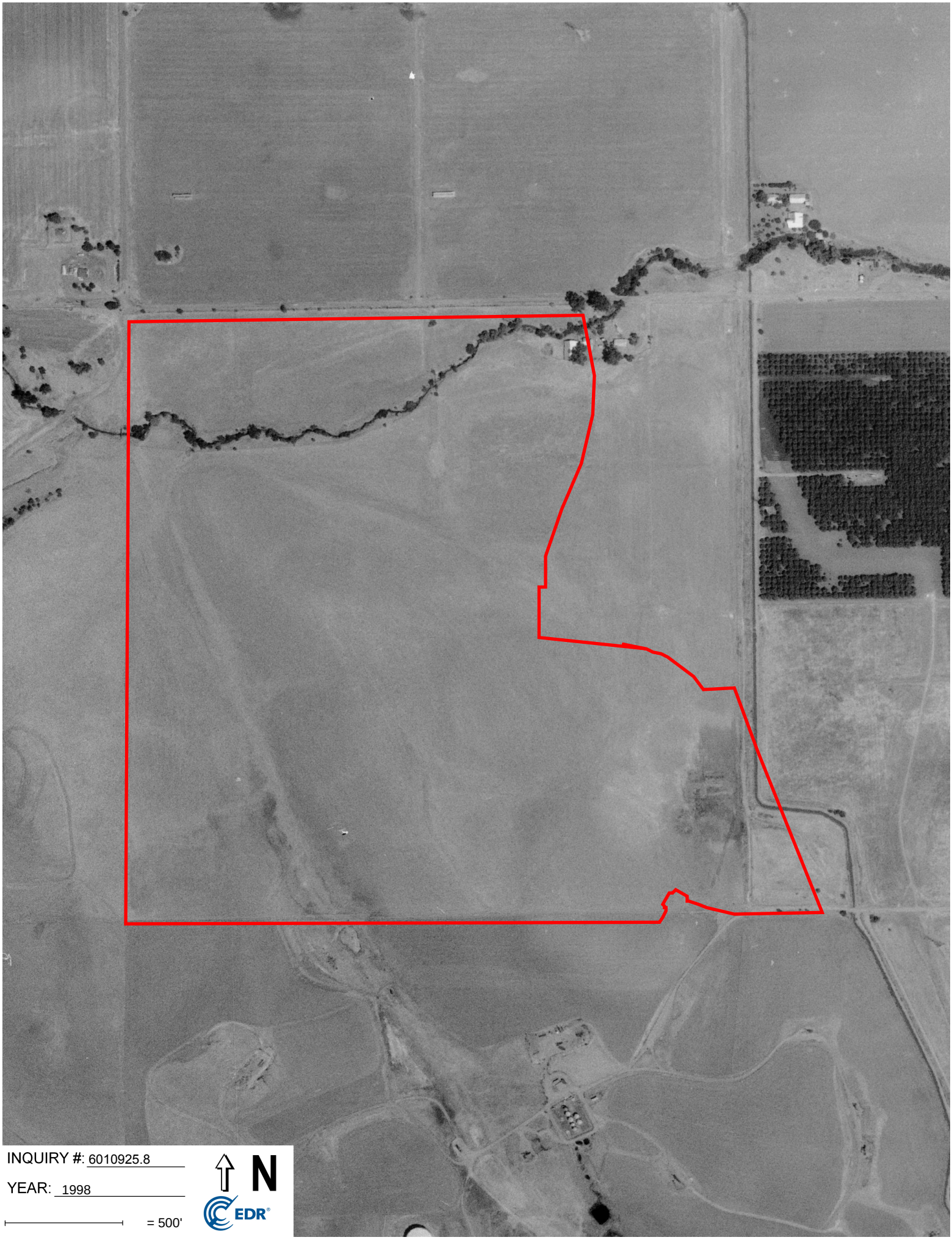
YEAR: 2009

= 500'

N

EDR


INQUIRY #: 6010925.8
YEAR: 2006
= 500'
N
EDR



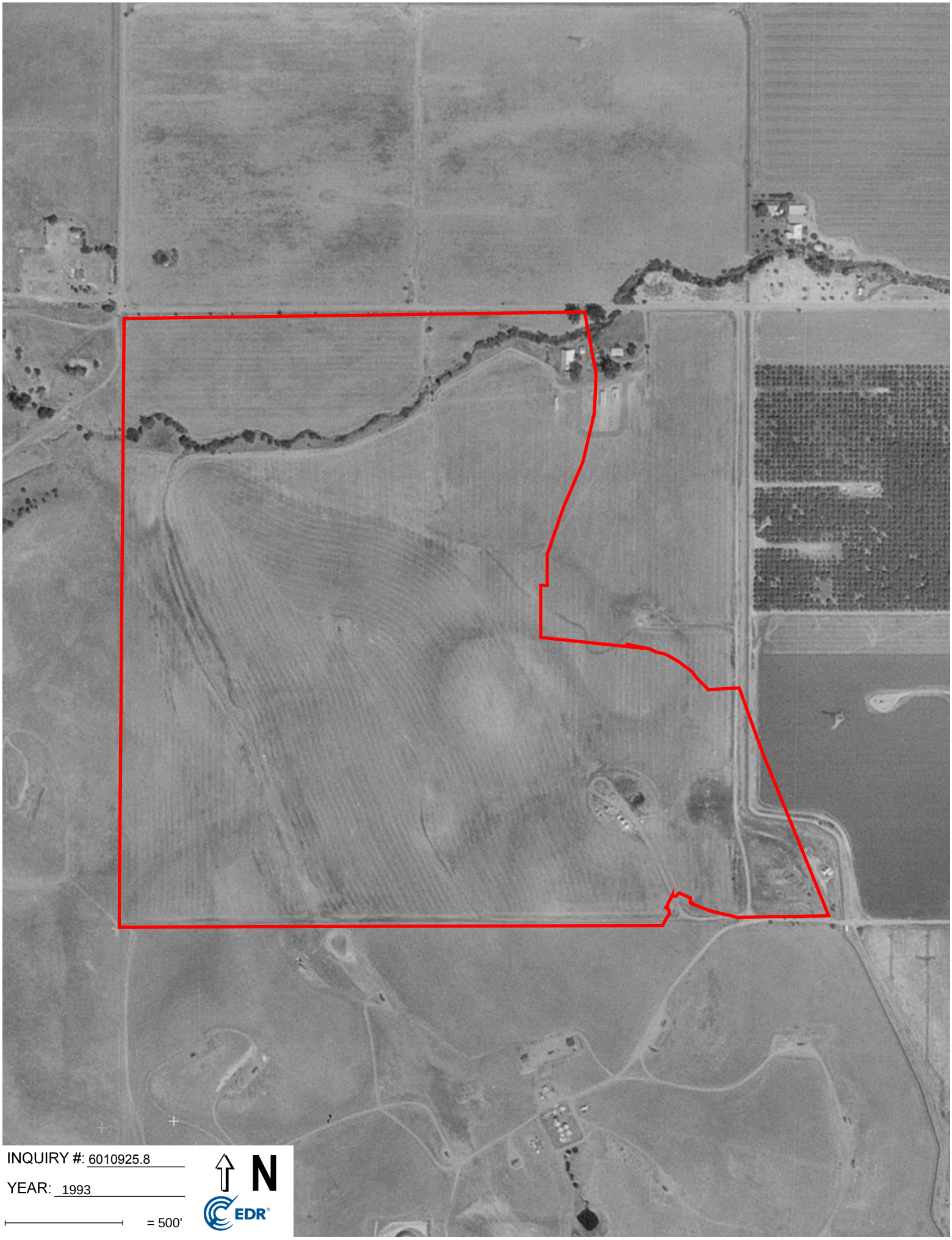
INQUIRY #: 6010925.8

YEAR: 1998

= 500'

N

EDR



INQUIRY #: 6010925.8

YEAR: 1993

= 500'

N

EDR



INQUIRY #: 6010925.8

YEAR: 1984

= 500'

N

EDR



INQUIRY #: 6010925.8

YEAR: 1982

= 500'

N

EDR



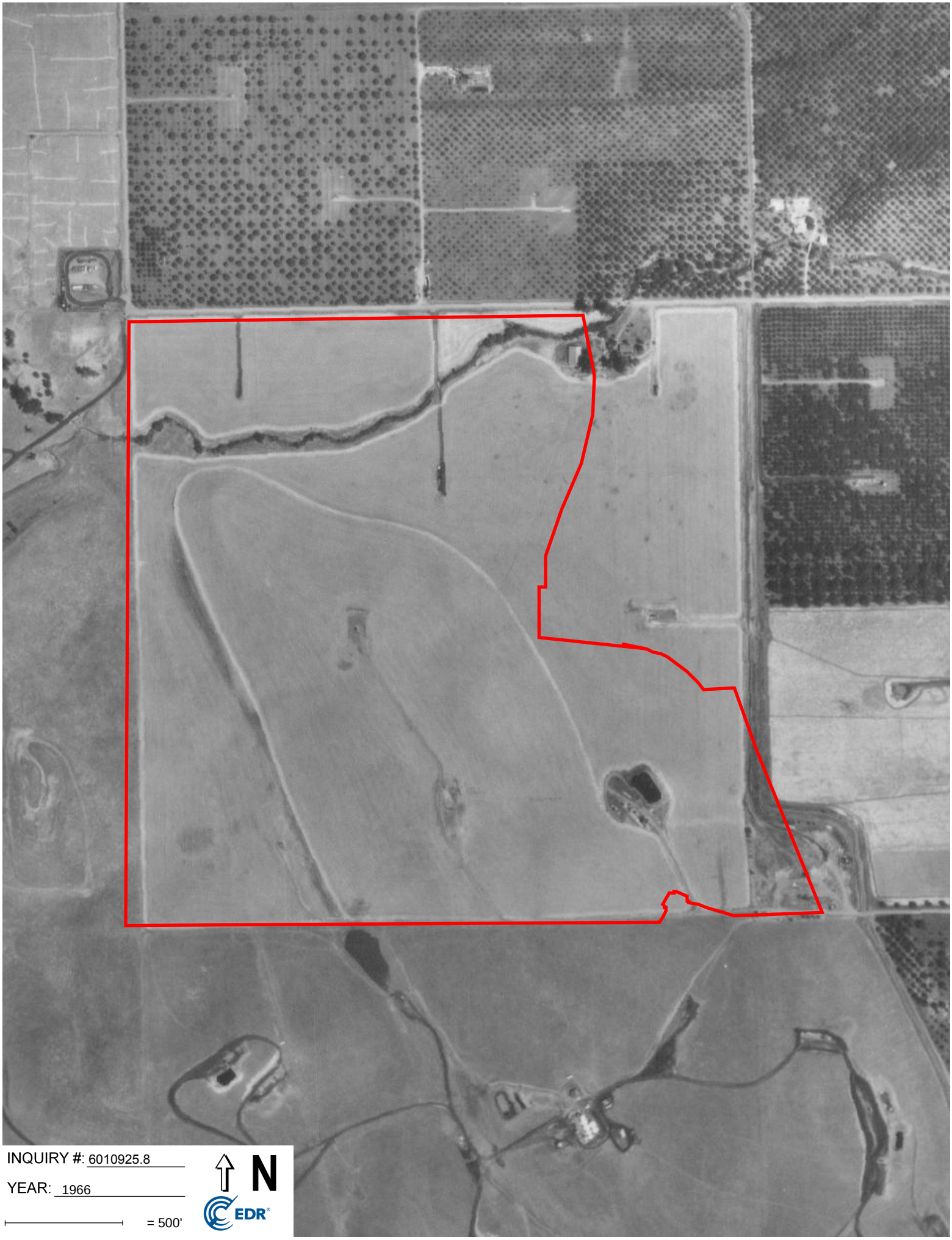
INQUIRY #: 6010925.8

YEAR: 1979

= 500'

N

EDR



INQUIRY #: 6010925.8

YEAR: 1966

= 500'

N

EDR



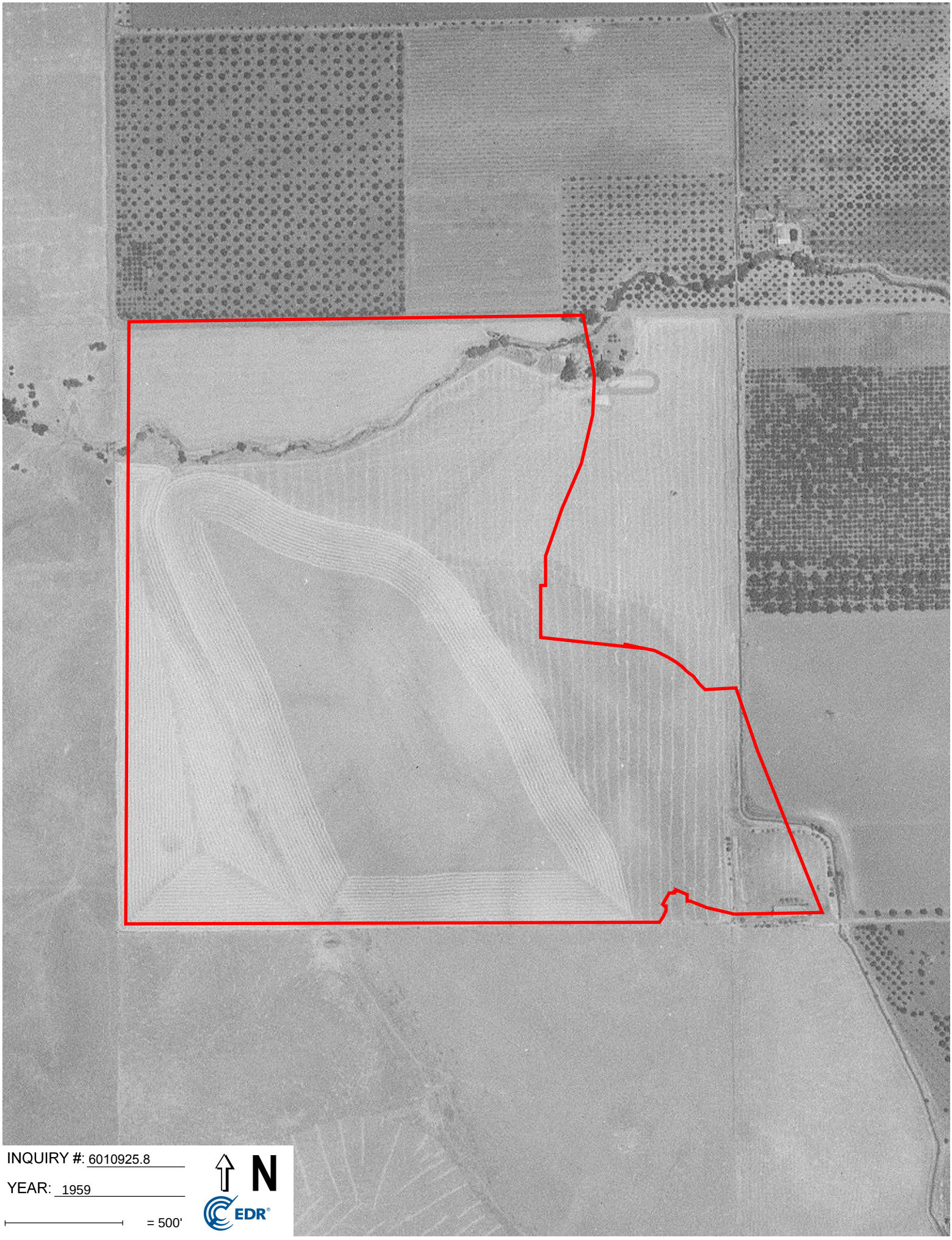
INQUIRY #: 6010925.8

YEAR: 1963

= 500'

N

EDR



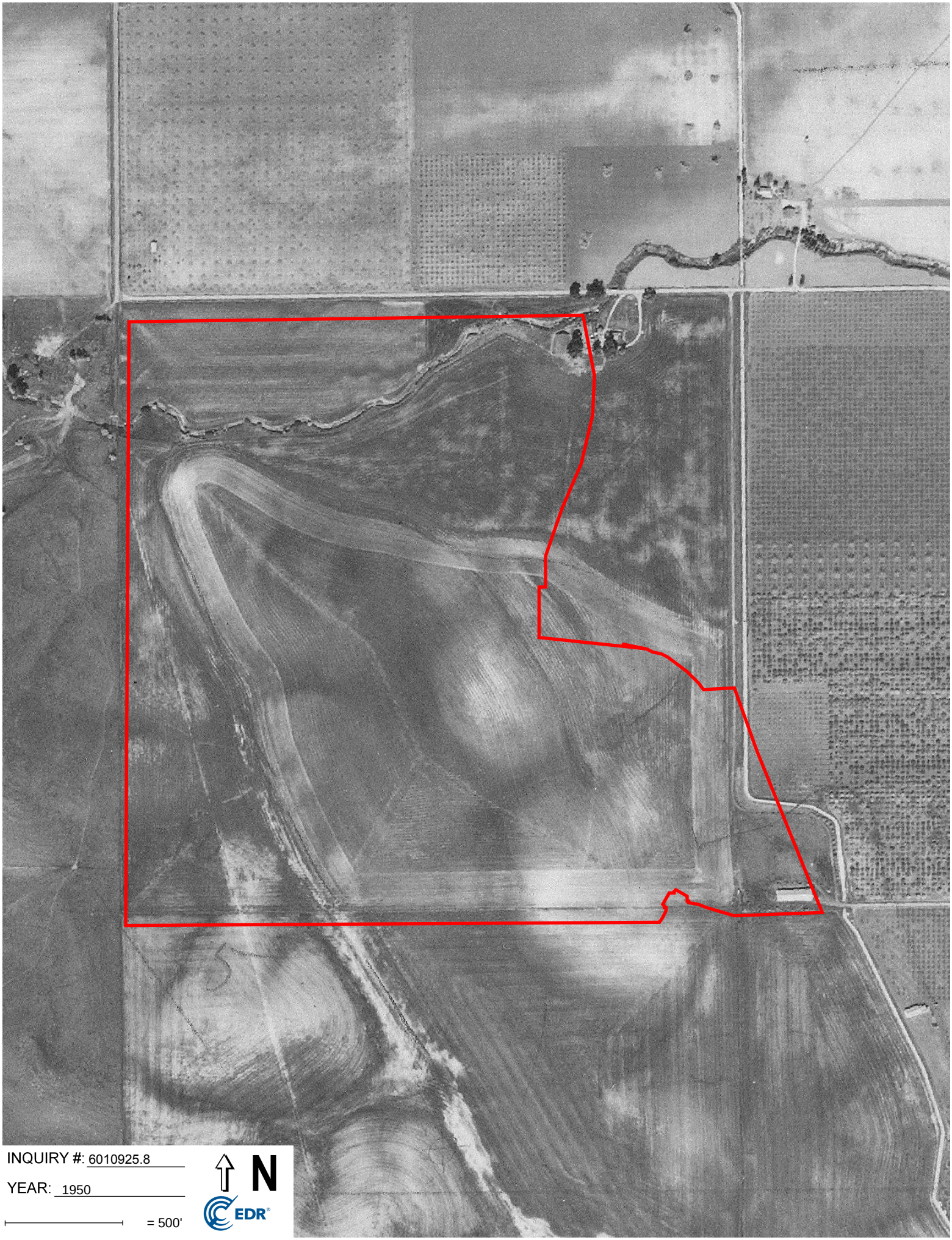
INQUIRY #: 6010925.8

YEAR: 1959

= 500'

N

EDR



INQUIRY #: 6010925.8

YEAR: 1950

= 500'

N

EDR



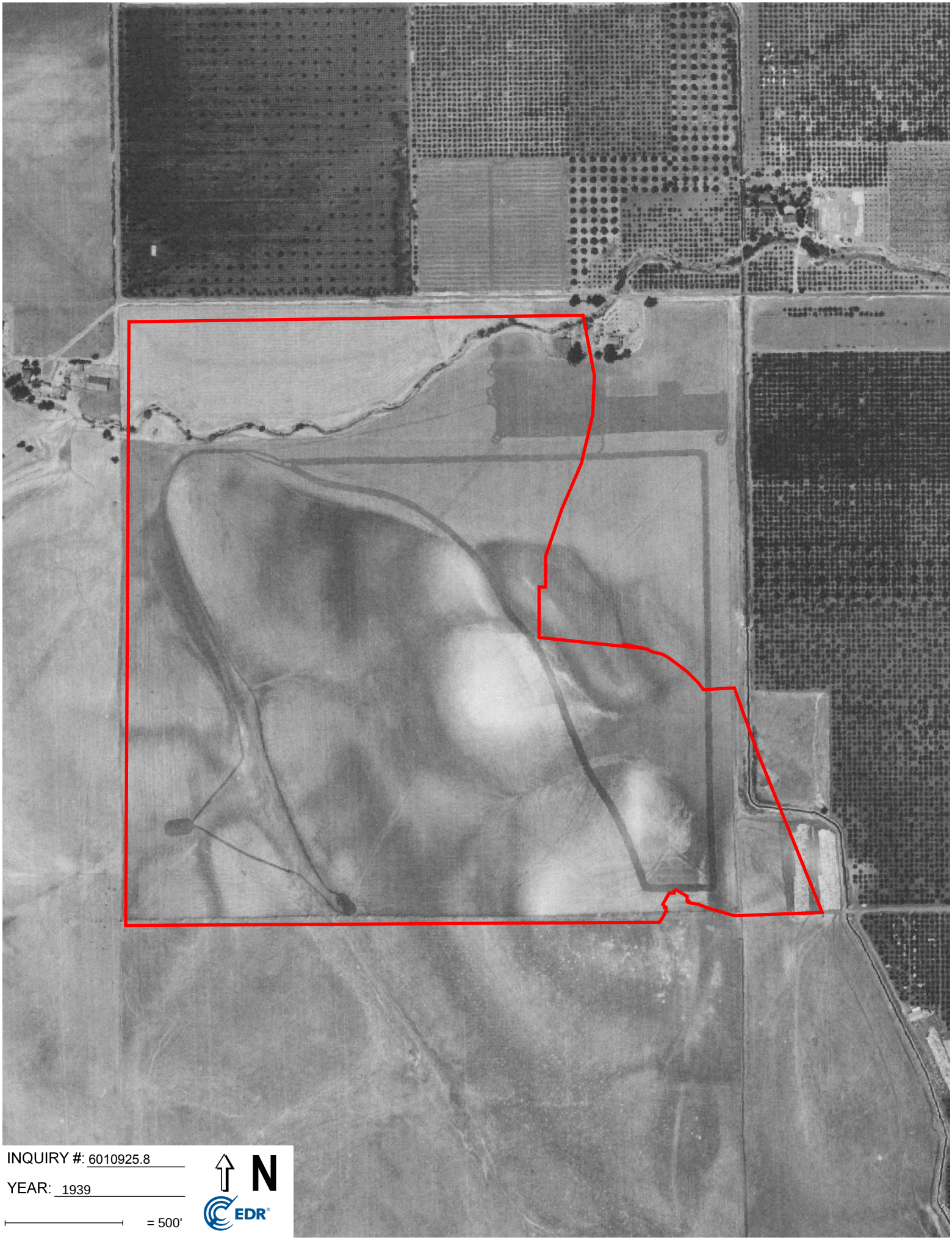
INQUIRY #: 6010925.8

YEAR: 1949

= 500'

N

EDR



INQUIRY #: 6010925.8

YEAR: 1939

= 500'

N

EDR



APPENDIX E

ENVIRONMENTAL DATA RESOURCES, INC.

Sanborn Map Report

Bridlegate

Sand Creek Road and San Jose Ave.

Brentwood, CA 94513

Inquiry Number: 6010925.3

March 16, 2020

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

03/16/20

Site Name:

Bridlegate
Sand Creek Road and San Jos
Brentwood, CA 94513
EDR Inquiry # 6010925.3

Client Name:

Engeo Inc.
2010 Crow Canyon Place
San Ramon, CA 94583
Contact: Brooke Spruit

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Engeo Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 76C6-49C8-8D42

PO # P2020.000.507

Project Bridle Gate

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 76C6-49C8-8D42

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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APPENDIX F

ENVIRONMENTAL DATA RESOURCES, INC.

City Directory

Bridlegate
Sand Creek Road and San Jose Ave.
Brentwood, CA 94513

Inquiry Number: 6010925.5
March 18, 2020

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

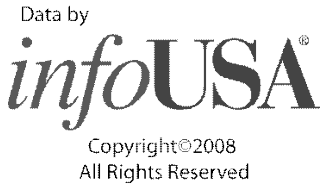
DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2014	☑	☐	EDR Digital Archive
2010	☑	☐	EDR Digital Archive
2005	☑	☐	EDR Digital Archive
2000	☑	☐	EDR Digital Archive
1995	☑	☐	EDR Digital Archive
1992	☑	☐	EDR Digital Archive
1985	☑	☐	Haines Criss-Cross Directory
1980	☐	☐	Haines Criss-Cross Directory
1975	☐	☐	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

Sand Creek Road and San Jose Ave.
Brentwood, CA 94513

Year	*CD Image*	*Source*	
SAN JOSE AVE			
2014	pg A1	EDR Digital Archive	
2010	pg A7	EDR Digital Archive	
2005	pg A13	EDR Digital Archive	
2000	pg A16	EDR Digital Archive	
1995	pg A18	EDR Digital Archive	
1992	pg A20	EDR Digital Archive	
1985	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1980	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1975	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
SAND CREEK RD			
2014	pg A2	EDR Digital Archive	
2010	pg A8	EDR Digital Archive	
2005	pg A14	EDR Digital Archive	
2000	pg A17	EDR Digital Archive	
1995	pg A19	EDR Digital Archive	
1992	pg A21	EDR Digital Archive	
1985	pg A22	Haines Criss-Cross Directory	
1980	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1975	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAN JOSE AVE 2014

1201	ORMAN, ANTHONY J
1203	WILLIAMS, NICHOLE
1205	SANFORD, DON L
1801	ONTRAC COMPUTERS
	YU, VINCENT T
2110	BRENTWOOD UNION SCHOOL DST
	LOMA VISTA SCHOOL PARENTS CLUB
	SUNSHINE HOUSE KID ZONE INC
2171	TREICHELT, KEITH K

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2014

41	ELITE REALTY SERVICES
50	NEW2YOU LABEL XCHANGE
	SAND CREEK
51	DOLLAR TREE INC
71	FENG YONG QING
	MARGOS LITTLE BAVARIA
101	BASIS AT FAME BRENTWD LEARNING
	BRENTWOOD CENTER LMC
	CONTRA COSTA CMNTY COLLEGE DST
	KIRKS APPRAISAL SERVICE
121	BI-BETT ALCOHOL & DRUG PROGRAM
141	PACIFIC GUARANTEE MORTGAGE
	SUMMIT FUNDING INC
151	LIFE ALTERNATIVE INC
181	TESS COMMUNITY FARM KIT INC
190	BRENTWOOD SELF STORAGE
	U-HAUL INTERNATIONAL
191	CENTRAL REWARD
	DAILEY, KATHI
	PURIFYX
	SALE MAKER AUCTION INC
	SAND BUSINESS CENTER
200	SAND CREEK PLAZA
201	BRENTWOOD LENDING GROUP
	CONLEY, MIKE
	ESMERALDA VILLEGA FARMERS
	EXTRA SPACE STORAGE INC
	KEY REALTY BRENTWOOD
2101	VILLA, AMADOR
2111	DURAN, LUIS
	ESGUERRA, MARK
	FLOWERS, ROXANNE
	SILVA, CECILIA
	STANLEY, SEQUOIA
2121	DEPAZ, HERLINDA
	LAFAYETTE, SARAH L
	REUS, SERAFIN S
	RONDAN, JUAN J
2131	ADRIANZA, GLENDA T
	ANDRIANZA, G
	BUCHANAN, SHAUNETTE
	HENDERSON, MARVETTA A
	HERNANDEZ, ANA
	LOZANO, ESTER
	MORTIMER, JANAE M
2141	AGUILAR, FABIOLA
	AGUILAR, N
	DIAZ, MICHELLE B
	TAPIA, ANA
2151	GARCIA, FRANCISCO

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2014 (Cont'd)

2151	LOPEZ, RUBI
	VAZQUEZ, JUAN V
2161	ASTUDILLO, AURORA A
	SIMUEL, MARNISHA
	ZAMORA, BERNICE
2171	COVARRUBIAS, ANGELICA
	OROZCO, MARIA G
	SOLIS, ADELA
	WHITEVACK, ERIKA
2181	DUARTE, BIANCA
	MENDOZA, ANDRAYA
	MORENO, JOSEFINA
	NAJIBULLAH, NADIA
	NOLEN, VERNESSIA L
	SCOTT, JOYCE
	WASHINGTON, DARYLE
2191	ESPERON, RAFAEL
	LARA, FRANCISCO J
	MARTINEZ, CARLOS S
	ORTIZ, REBECCA A
2201	GARCIA, LUIS
	SALINAS, ADALBERTO
2211	BEARD, ANTERNETTE
	CARUTH, MILDRED A
	ORDAZ, LUCILA M
	RAZO, CARLOS
	VELADOR, PEDRO
2221	MADRIGAL, MARIA I
	MARTINEZ, ARTURO
	TRANQUIL TOUCH
	TURNER, SHAUNTELLE
	WILLIAMS, DENISE
2231	HICKS, HENRIETTA L
	LOZANO, BRITTNEY
2240	LOZIER, SHELLEY
2241	FONTINO, KENYA
	JONES, RON
	LARKIN, SARA E
	NOLEN, JEQUESHA L
	ZAVALA, TERESA J
2300	CAFE ASIA
	FARINAS, INGRID
	INGRID A STVENS-FARINAS OD INC
	QING SHI YUAN LLC
2355	BLACK ANGUS STEAK HOUSE
2365	BJS RESTAURANT 517
2375	SLEEP NUMBER BY SELECT COMFORT
2385	RED ROBIN GOURMET BURGERS INC
2400	RALEYS
	TRI COUNTIES BANK

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2014 (Cont'd)

2420 1 BOX CORPORATION
A STEP ABOVE SECURITY INC
ALL OUT SPORTS LEAGUE
AMY ALVIS ESQ
ANDRADE CONSTRUCTION INC
B & M TEAR OFF
BAD DOG CONSTRUCTION
CAMPOS, JAMES M
CASTLE CONSULTING INC
CLEARCUT INVESTIGATIVE SVCS
COMMITTEE TO ELECT ROGER SHORT
CONNECT TEK CALIFORNIA INC
DAMON PRESTON
DAVENPORT TILE
DP TECHNICAL SOLUTIONS
EQUITY FUND LLC
FINV HOLDING CORP
FOGARTY, TIMOTHY M
FRYAR, TEREES
FULLEN SURVEYING & MAPPING INC
GALLOWAY, JOHN M
GALUSHA, LAUREN
GLOBAL SYNDICATED CAPITAL SVCS
GOLD RUN CAPITAL LLC
GOLDEN PALM LANDSCAPE
HARLEM WEST PUBLICATIONS INC
INTERNATIONAL ASSOC HOME ST
JACKSON, PATRICK
JOHNSON, ALLAN C
KACHILDO LLC
KAS MANAGEMENT INC
KHAN, EQBAL A
MCKNIGHT, CRAIG C
METRO PAINTING COMPANY
MOORE, NICOLE
MOORES MOBILE VETERINARY SVCS
MUNNS, JEN
MYWORKTOOLS COM
N VISION INVESTMENTS LLC
NAVACO PROPERTIES LLC
NEMAXX LLC
NESS, STEVE C
OLSON, AVIS M
ONE COMPUTE INC
PACE INSPECTION SERVICES
PREMIER FLOOR CARE INC
QUALITY CLEAN WNDOWS JNTR SVCS
REAL ESTATE SECURED INVESTMENT
RED BOX BUSINESS SOLUTIONS
RODGER CRAIG SLACK

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2014 (Cont'd)

2420	SANDCREEK POOLS INC
	SANDERS RENOIR
	SLACK, LAWRENCE
	SLAY PRVATE INVSTGATIONS ASSOC
	SOUZA, G R
	STAGEDHOMES INC
	SUPERCUTS
	WALLACE NETWORKS
	WESTERN EDITION NEWSPAPERS INC
	WIDJAJA WINATA CORPORATION
	WILSON, ANTHONY
	WOLSNER PUBLISHING CO LLC
	ZHENG, QIN
2421	SANTOS, RON
2426	MCLAUGHLIN, FRANCINE
	WASHINGTON, TINA
2430	DIANA NAILS HAIR
	N-G NAILS
	VISIONS HM STAGING CONSIGNMENT
2440	ALLISON LOCKE STYLES
	CANDLE MOODS
	CUSTOM CARTS & NEIGHBORHD ELEC
	PAYLESS SHOESOURCE INC
	SYLES FOR LESS
2455	CHICOS FAS INC
	COLOR ME MINE
	FUSION 3 SALON
	JOS A BANK CLOTHIERS INC
	MAC AT STREETS OF BRENTWOOD
	STREETS OF BRENTWOOD
	SUBWAY
	WHITE HOUSE BLACK MARKET INC
2460	HOMEGOODS INC
2465	AT&T CORP
	MASSAGE ENVY
	ULTA SALON COSMT FRAGRANCE INC
2470	PARTY CITY CORPORATION
2475	GLAMORA BY SADIA
	REI INC
2480	KELLY-MOORE PAINT COMPANY
2485	DELTA GALLERY OF ARTS INC
	FAT BURGER
	ROCKY MTN CHOCLAT FCTRY INC
	SUNGLASS HUT TRADING LLC
2500	DICKEYS BARBECUE PIT
	MIKADO BRISTRO LLC
	OCCUPANT UNKNOWN,
	STRINGS RESTAURANT GROUP
2505	BANGKOK 101 THAI CUSINE
	BRENTWOOD RESTAURANT

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2014 (Cont'd)

2505	GAMESTOP CORP
	GRAZIES INC
	GYMBOREE
	HOLLISTER OHIO LLC
	JOHNNY GARLICS BRENTWOOD
	JUSTICE 957
	LIMITED TOO
	RUBIOS FRESH MEXICAN GRILL
	TILLYS
	WISHING CRAB
2510	OAKLEY REALTY
	PEARSON PROPERTIES INC
	PRUDENTIAL CALIFORNIA RLTY CO
2520	ROSS STORES INC
2523	ORIGINAL MELS
	SWEET BLISS CUPCAKES
2525	C & C MCKNIGHTS CHOCOLATES LLC
	RAVE MOVIE THEATRES
2530	KRISPY KREME BRENTWOOD 87
	SAND CREEK CROSSING LLC
2535	AEROPOSTALE INC
	DELIAS INC
	MAURICES INCORPORATED
	PACIFIC SUNWEAR CALIFORNIA INC
	PICTURE PEOPLE INC
	ZUMIEZ
2540	ROUND TABLE PIZZA INC
	SAND CREEK DENTAL
2545	CHARMING CHARLIE
	CHILDRENS PLACE RET STORES INC
2555	DSW INC
2565	COLDWATER CREEK INC
	LEN CRAFTER
	LUXOTTICA RETAIL N AMER INC
	SALAD MAKERS
2845	VICTORIAS SECRET STORES LLC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAN JOSE AVE 2010

1201	OCCUPANT UNKNOWN,
1203	OCCUPANT UNKNOWN,
1205	SANFORD, DON L
1801	ONTRAC COMPUTERS
2110	BRENTWOOD UNION SCHOOL DST
	LOMA VISTA SCHOOL PARENTS CLUB
	SUNSHINE HOUSE KID ZONE INC
2171	TREICHELT, KEITH K

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2010

50	ABC MASSAGE
	COMMUNITY COMMUNICATIONS
	G B M
	LAMAR DOUGLAS G ATTORNEY
	PREMIERE CARE MNGMENT SPCLLIST
51	DOLLAR TREE INC
	IN-SHAPE HEALTH CLUBS INC
71	CASUAL CITY
	DOAAS LLC
	FENG YONG QING
	HARB, JALAL
	MARGOS LITTLE BAVARIA
	SPECIALTY FOAM PRODUCTS
101	BASIS AT FAME BRENTWOOD L
	BUDGET BLINDS
	CONTRA COSTA CMNTY COLLEGE DST
	KIRKS APPRAISAL SERVICE
121	CALIFORNIA PCF FEDERAL CR UN
131	TEAM ELITE KELLER WILLIAMS
141	CMG MORTGAGE SERVICES
	PACIFIC GUARANTEE MORTGAGE
151	CISS INC
	CLEARSTONE INC
	LIFE ALTERNATIVE INC
161	FAMILY WORSHIP CENTER
	PURCELL TECHNOLOGIES INC
171	DE SILVA GATES CONSTRUCTION
181	PACIFIC DOCUMENT SERVICES INC
	SECHLER MARK
	SHIELD PRTCTION PUB SAFETY INC
	SPEARHEAD PROTECTION
	TESS COMMUNITY FARM KIT INC
	VISTA NATIONAL LLC
190	BRENTWOOD SELF STORAGE
191	CURRAN CONNORS
	DAILEY KATHI MFT
	DISCOVERY BAY REAL ESTATE
	SAND BUSINESS CENTER
	SCOTT, AMY
200	CLAREMONT HOMES
	TWO N SQUARED INC
201	B A E B PUBLISHING
	BRENTWOOD LENDING GROUP
	DE RUSSO INSURANCE AGENCY
	EDWARD D JONES & CO LTD PARTNR
	EXTRA SPACE STORAGE INC
	GREGORY RNCH OFF INVESTORS INC
	PLATINUM MORTGAGE BROKERS
	PRECISION LEAK DETECTION
2101	VILLA, AMADOR

SAND CREEK RD 2010 (Cont'd)

2121 PIERSON, LAQUISE
REUS, SERAFIN
RONDAN, JUAN J
TEODORO, NANCY
2131 BOBINEAUX, DOMINIQUE
FERGUSON, JOHNAY
HERNANDEZ, ANA
LEVEQUE, ERIN
ROBLES, JOSE
WHITNER, MARIE
WHITNEY, A
2141 AGUILAR, FABIOLA
AGUILAR, N
ROMAN, AMPARO
SILOT, ANGEL
2151 CUEVAS, MARICRUZ
NOLEN, VERNESSIA
RAMIREZ, CARLOS
STREETE, TANIA
2161 COVARRUBIAS, ANGELICA
LEDO, LAVERNE M
2171 OROZCO, MARIA G
ORTIZ, SANDRA
2181 ADRIANZA, GLENDA
ALLEN, BENITA
DUARTE, SABRINA M
ELDRIDGE, FALON
MADRIGAL, KARINA
MILLER, ERIKA
SHUMPERD, AMBER
YOUNG, CHRISTOPHER
2191 ESPERON, RAFAEL
LARA, FRANCISCO J
MARTINEZ, CARLOS S
2200 MANN JASON
PIERCE, VICTORIA
2201 CHAVEZ, SANDY L
CONTRERAS, ROSA M
GARCIA, RAMON S
SOLIS, RAUL S
2211 MAGNO, JESUS
SCOGGINS, BRANDIE
VELADOR, PEDRO
2221 MADRIGAL, MARIA I
MARTINEZ, ARTURO
2231 HICKS, HENRIETTA
MUNOZ, CANDACE A
2240 LEW, RONALD
2241 BROWN, JOHNATAN
DELAROSA, REINA

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2010 (Cont'd)

2241	ESCALANTE, J
	NOLEN, JEQUESHA
	PEREZ, ESMERALDA
2300	HAWAIIAN BARBAQUE
	HIBAR HAWAIIAN BBQ
	INGRID A STVENS-FARINAS OD INC
2385	RED ROBIN GOURMET BURGERS
2400	RALEYS
	TRI COUNTIES BANK
2410	HOME FURNISHINGS GOOD PRICES
2420	A-RATED DOCUMENT ASSISTANCE
	ALL OUT SPORTS LEAGUE
	AMY ALVIS ESQ
	B & M TEAR OFF
	BAYSIDE HOME 3 KNIGHTSEN HOU
	BLACK HAWK BEAUTY
	BOWMAN & SON BUILDERS
	CAMPOS, JAMES M
	CLEAN ENERGY SOLUTIONS INC
	CORREA, MICHAEL A
	CUNNINGHAM, SVONNE E
	DAMON PRESTON
	DAVENPORT TILE
	DAVID OLSEN ELECTRICAL CONTRAC
	DEBBI GALVAN FINCL SVCS LLC
	DELACRUZ, EDWARD J
	DEMEDUK, MICHAEL G
	DEVINE INTERIORS
	DMEB ENTERPRISE INC
	DORRIS CNSLT & CMPT SOLUTIONS
	DP TECHNICAL SOLUTIONS
	DWP ENTERPRISE INC
	EQUITY FUND LLC
	FINV HOLDING CORP
	FULLEN SURVEYING & MAPPING INC
	GLOBAL SYNDICATED CAPITAL SVCS
	GO TRADE CENTRAL
	INTERNATIONAL ASSOC HOME ST
	J V HEATING AND AC
	JACKSON, PATRICK
	JD MERRITT & AFFILIATES INC
	KEN, ROSEMARIE M
	KHAN INVESTMENTS INC
	KHAN, EQBAL A
	KLAUS, GRETCHEN
	KOEHLER, TODD H
	LATENT INVESTIGATIONS
	LOOSLI, EILEY
	LUCAS, JONATHAN D
	MAKING A SCENE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2010 (Cont'd)

2420	MAXCOM DIRECT INC
	METRO PAINTING COMPANY
	MOORES MOBILE VETERINARY SVCS
	MUNNS, DERRIC
	MUNNS, JEN
	MYWORKTOOLS COM
	N VISION INVESTMENTS LLC
	NAVACO PROPERTIES LLC
	NAVALES, EDWARD P
	NELSON, MICHAEL
	NEMAXX LLC
	NORCAL CONSTRUCTION & SOLAR
	PAGNINIS INC
	QUALITY CLEAN WNDOWS JNTR SVCS
	REAL ESTATE SECURED INVESTMENT
	REED PROPERTY RENTALS
	RODGER CRAIG SLACK
	SANDCREEK POOLS INC
	SANDERHOFF, CURTIS L
	SANDERS RENOIR
	SANKALAN SARKAR TECHS
	SKYLASERSCOM
	SLACK, LAWRENCE
	SPRUCE PROPERTY MANAGEMENT
	STAGEDHOMES INC
	STANLEY DARRIN G ASPHALT MAINT
	STENSCHKE SHERRI
	TNT FIRE PROTECTION INC
	TYLERMARIE LTD
	WEST COAST CUSTOM PAINTING
	WESTERN EDITION NEWSPAPERS INC
	WESTONE MORTGAGE CORPORATION
	WHITE NOISE EDUCATIONAL BROADC
	WHITE, LAQUETA S
	WILSON, TANYA
	WOLSNER PUBLISHING CO LLC
	ZAMORA, FRANK J
	ZINELAS LLC
2430	DIANA NAILS HAIR
	VISIONS HM STAGING CONSIGNMENT
2440	ALLISON LOCKE STYLES
	CANDLE MOODS
	CUSTOM CARTS & NEIGHBORHD ELEC
	PREFERRED LENDING SOLUTIONS
	SYLES FOR LESS
2455	CHICOS WOMENS RETAIL
	DLF INNOVATIONS INC
	FUSION 3 SALON
	JOS A BANK
	MAC AT STREETS OF BRENTWOOD

SAND CREEK RD 2010 (Cont'd)

2455 SWAROVSKI
WHITEHOUSE BLACK MARKET
2460 HOMEGOODS INC
2465 AT&T CORP
MASSAGE ENVY
ULTA
2470 PARTY CITY CORPORATION
2475 GLAMORA BY SADIA
REI INC
2480 KELLY-MOORE PAINT COMPANY
2485 AMMEXCOL USA LLC
BANANA REPUBLIC LLC
BREW, CODE
ROCKY MTN CHOCLAT FCTRY INC
SUNGLASS HUT TRADING CORP
2500 MIKADO BRISTRO LLC
OCCUPANT UNKNOWN,
STRINGS RESTAURANT GROUP INC
2505 BANGKOK 101 THAI CUSINE
EXPRESS 2007
FUZIO UNIVERSAL BISTRO
GAMESTOP CORP
GRAZIE GRILL
GYMBOREE
HOLLISTER CO
JUSTICE 957
RUBIOS FRESH MEXICAN GRILL
TILLYS
2510 FREEDOM FUNDING GROUP
OAKLEY REALTY
PRUDENTIAL CALIFORNIA RLTY CO
2520 ROSS STORES INC
2523 ORIGINAL MELS
2525 C & C MCKNIGHTS CHOCOLATES LLC
RAVE MOVIE THEATRES
2530 SEES CANDIES INC
2535 AEROPOSTALE INC
AMERICAN EAGLE OUTFITTERS INC
MAINLAND SKATE AND SURF
PACIFIC SUNWEAR CALIFORNIA INC
PICTURE PEOPLE INC
2545 CHILDRENS PLACE RET STORES INC
TAYLOR ANN LOFT 1642
2555 DSW INC
J JILL GROUP INC
2565 COLDWATER CREEK INC
LUXOTTICA RETAIL N AMER INC
SALAD MAKERS
STREETS OF BRENTWOOD
3623 PEACES OF A DREAM

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAN JOSE AVE 2005

1203 AZAMEY, SAYED Z
1205 HAYES HANDPIECE REPAIR
SANFORD, DON L
1801 CO TECHNOLOGY
GURSON, DOKTOR
INEXPENSIVEDOMAINSCOM LLC
SECURE SERVICES
2051 MOON, STEVE
2110 BRENTWOOD UNION SCH DIST
SUNSHINE HOUSE KID ZONE INC
2171 TREICHELT, KEITH N
2230 MANOWA, MAURICE M

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2005

4	TJ MAXX OF CA LLC
41	MASELLI BROS SHOE REPAIR A GEN
50	CASTRO & ASSOC
	COMMUNITY COMMUNICATIONS
	FURNITURE GALLERY
	G B M
	MAGGANAS DEVELOPMENT CO
	MORTGAGE MASTER HOME FINANCING
	SMOKE STOP
	UNICK MICHAEL G
51	GYM & FITNESS CENTER INC
	IN-SHAPE HEALTH CLUBS INC
71	BT O ENTERPRISES
	LOPEZ, ROSS
	MARGOS LITTLE BAVARIA
	MIAS
	RANDALL, NATHAN
	RHONDAS NATURAL NAILS
	SPECIALTY FOAM PRODUCTS
	TWIN ESCAPES & TREASURES
101	110 DEGREES MEDIA EAST COUNTY
	21ST CENTURY POS SOLUTIONS
	AUTO MOTIVES
	BUDGET BLINDS
	BUDGET BLINDS OF MOUNT DIABLO
	CONTRA COSTA CMNTY COLLEGE DST
	FIRST KEYS MORTGAGE
	GENERATIONS HOME CARE INC
	HARRISON ERIC
	KIRKS APPRAISAL SERVICE
	NORTHSTAR ALLIANCE
	PETLANSKY STEVEN CLARK
	WEST COAST SWIMMING POOL BUILD
141	CITYWIDE FINANCIAL
	OLYMPIA FUNDING
	PACIFIC GUARANTEE MORTGAGE
161	PURCELL TECHNOLOGIES INC
	PURCELL, JAMES
171	DESLVA OLIVER INC
190	BRENTWOOD SELF STORAGE
420	SCHERZER, PHILLIP W
421	LUCAY, BRYAN C
440	WHEELAND, M H
450	BECKSTRAND, DOUGLAS M
520	HARMON, JAMES
521	TAGUE J MICHAEL CONSTRUCTION
	TAGUE, MICHAEL M
531	GAUDINIER, HAZEL G
540	OBRYAN, ANNETTE
541	DIAMOND T TRACTOR SERVICE

SAND CREEK RD 2005 (Cont'd)

541	TROY, JAMES P
2200	NIKKI NAILS & SPA
2300	CHERRY POP PARLOR
	HAWAIIAN BAR BQ
2400	RALEYS
2410	HOME CONCEPT
2420	BLAISE ENGRG & CONSULTING
	CUSTOM CLEANERS
	DAVID OLSEN ELECTRICAL CONTRAC
	GOLDEN PALM LANDSCAPE
	N VISION INVESTMENTS LLC
	PAGNINIS INC
	PRESIDENTIAL FLOOR MAINT LLC
	RODGER CRAIG SLACK
	SANDERS RENOIR
	SANKALAN SARKAR TECHS
	SIGGYS CARPET CLEANING
	TAYLORED SOLUTIONS
	WHITE NOISE EDUCATIONAL BROADC
	WOLSNER PUBLISHING CO
2430	DIANA NAILS HAIR
	PLANET TAN
	SIMON JEWELER
2440	CANDLE MOODS
	MARR MIRAGE
	PLAY AT HOME BILLD & BARSTOOLS
	QUALITY PROPERTIES REAL ESTATE
	SCRAP THAT IDEA
	SHOES 4 KIX
2460	HOMEGOODS INC
2480	KELLY-MOORE PAINT COMPANY
2520	ROSS STORES INC
2530	CHAND, HIMANSHU
	STARBUCKS CORPORATION
2540	DELTA SUBS INC
	TUAZON JHOANNA

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAN JOSE AVE 2000

1203	AKRAMY, NAJIA
1205	ARNOLD, DENISE A
1701	OCCUPANT UNKNOWN,
1801	GOODRICH, JEFF
2171	TREICHELT, KEITH

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 2000

29	WIEMKEN, JACKLYN M
41	DELTA PURE WATER INC
48	UECHI RYU KNYKAI KRTE BRNTWOOD
50	BLUE HAVEN POOLS & SPAS
	COMMTEK COMMUNICATIONS INC
	MAGGANAS DEVELOPMENT CO
	TRES JOLIE SALON
	VICTORY BAPTIST CHURCH
	WIEMKEN, JACKLYN M
51	COUNTRY TANS
	UNIVERSAL FAMILY FITNESS INC
71	ABRIE SKIN CARE SALON
	BT O ENTERPRISES
	DRAGON CITY
	KIRBY OF BRENTWOOD
	SPECIALTY FOAM PRODUCTS
101	LUCKY STORES INC (DE)
420	SCHERZER, PHILLIP
421	OCCUPANT UNKNOWN,
430	OCCUPANT UNKNOWN,
431	BARR CONCRETE CONSTRUCTION CO
	BARR, STEPHEN E
440	OCCUPANT UNKNOWN,
441	GRIFFIN, WILLIAM J
450	CORNELIUS, GRANT
520	MASELLI, RONALD V
521	TAGUE J MICHAEL CONSTRUCTION
	TAGUE, MICHAEL
530	BIGLOW, B J
2110	TITONE, JOSEPH N
2200	CASTELLO, VICTOR
2483	MAGGIORA, MELVIN
3623	PEACES OF A DREAM

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAN JOSE AVE 1995

1701	TAMAYO, JEFFREY J
1801	TAMAYO, JEFF
2171	TREICHELT, KEITH

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 1995

41	DELTA PURE WATER INC
50	FIELD OF DREAMS
	GREENS PUBLIC RELATIONS FIRM
	MAGGANAS DEVELOPMENT CO
	UNIVERSAL FAMILY FITNESS INC
71	ABRIE SKIN CARE SALON
	APOLLO CARPET OUTLET
	CASTLE DESIGNS BRIDAL SALON
	SARMENTO LEANNE
101	LUCKY STORES INC
431	BARR CONCRETE CONSTRUCTION CO
521	TAGUE J MICHAEL CONSTRUCTION
3623	CRAFT & TEA SHOPPE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAN JOSE AVE 1992

2171 TREICHELT, KEITH

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SAND CREEK RD 1992

41	EAST COUNTY PIZZA ENTERPRISES
50	GREENS PUBLIC RELATIONS FIRM
	JANA INC
	PACIFIC COMMUNICATIONS ASSOC
51	THRIFTY CORPORATION
71	MARGOS LITTLE BAVARIA
101	LUCKY STORES INC

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

SAND CREEK RD 1985

SAND CRK RD 94513
BRENTWOOD

31	TAGUE MICHAEL	634-6469	4
41	GRIFFIN WM J JR	634-5570	+5
51	RARS CONCRETE CONST	634-8381	2
	BARR S E	634-5595	2
61	XXXX	00	
NO #	BUNDRUM SARA	634-2348	+5
NO #	CABRAL JACK	634-2308	0
NO #	MAGGIORA MELVIN	634-3002	
NO #	PLACENCIA JOE	634-6516	2
NO #	SHELL CO PIPE LINE	634-2180	
NO #	SHELL CO PRODUCTN	634-4822	
NO #	SMELTON FRANK	634-2221	0
NO #	SORGENFREY HARRY	634-3354	
NO #	THORMAHLEN LARRY	634-6093	9
★	3 BUS 11 RES	2 NEW	



APPENDIX G

ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRES (2)

ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE
FOR CLIENT

To evaluate the potential for possible environmentally related impacts and site contamination the following information is requested. This questionnaire is to be completed by the user of the phase one environmental site assessment, or their authorized representative.

PART I

1. Property address and Assessor's Parcel Number (APN):

   West side of State Highway 4 at Sand Creek Road, Brentwood

   APN 019-082-007

2. Current property owner (name, address, voice/fax number):

   West Coast Home Builders, Inc.
   4021 Port Chicago Highway, Concord CA 94520
   925-602-7235

3. Date current property owner assumed title of property:

   1998

4. Current property development/improvements:

   The property is currently undeveloped

5. Past property use, development/improvements:

   Grazing, row crops and oil wells

6. Neighboring property uses:

   Single family homes to the south
   Commercial centers to the east
   Vacant agricultural land to the nort
   vacant open space/grazing land to the west

PART II

1.	Are you aware of any environmental cleanup liens against the *property* that are filed under federal, tribal, local or state law?	☐ Yes	☑ No
2.	Are you aware of any activity and land use limitations, such as engineering controls, land use restrictions, or institutional controls that are in place at the property and/or have been filed or recorded in a registry under federal, tribal, state or local law?	☐ Yes	☑ No
3.	Do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the *property* or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?	☐ Yes	☑ No
4.	If a property transaction is occurring in conjunction with this environmental assessment, does the purchase price of this *property* reasonably reflect the fair market value of the *property*?	☐ Yes	☑ No
5.	If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property?*	☐ Yes	☐ No ☑ N/A
6.	Are you aware of any commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, (a) do you know of specific chemicals that are present or once were present at the *property*? (b) do you know of spills or other chemical releases that have taken place at the *property*? (c) do you know of any environmental cleanups that have taken place at the *property*?	☑ Yes	☐ No
7.	Based on your knowledge and experience related to the *property* are there any obvious indicators that point to the presence or likely presence of contamination at the *property*?	☐ Yes	☑ No

If a "Yes" response was provided to any of the above questions, please provide details below:

There were several oil wells on the property which were owned by Shell Oil and later by Occidental petroleum, The wells were abandoned in the late 1990's and any affected soil was remediated under the oversight of the California Regional Water Quality Control Board which issued a letter of no further action on July 7, 2000

I certify that the information herein is true and correct to the best of my knowledge as of the date signed below.

Name (Printed/Typed): Richard Sestero

Signature: Date: 3/24/20

ENGEO
Expect Excellence

ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE
FOR KEY SITE MANAGER

To evaluate the potential for possible environmentally related impacts and site contamination the following information is requested. This questionnaire is to be preferably completed by the current property owner, or owner representative, leasing agent, or other person having good knowledge of the uses and physical characteristics of the property (Key Site Manager).

PART I

1. Property Address/Location and Assessor's Parcel Number (APN):

   West side of State Highway 4 at Sand Creek Road, Brentwood, CA
   APN 019-082-007

2. Current property owner (name, address, voice/fax number):

   West Coast Home Builders, Inc.
   4021 Port Chicago Highway, Concord, CA 94520
   925-671-7711

3. Date current property owner assumed title of property:

   1998

4. Current property development/improvements:

   The property is currently undeveloped

5. Past property use, development/improvements:

   Grazing, row crops and oil wells

6. Neighboring property uses:

   Single family homes to the south
   Commercial Centers to the east
   Agriculture to the north
   Open space and grazing to the west

PART II - The following questions should be answered to the best of your knowledge.

1.	Is/has the *property* or any adjoining property used/been used for industrial purposes?	☐ Yes	☑ No
2.	Has the *property* or any adjoining property been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?	☐ Yes	☑ No
3.	Are there currently, or have there been previously, any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of greater than 5 gal in volume or 50 gal in the aggregate, stored on or used at the *property* or at the facility?	☐ Yes	☑ No
4.	Has undocumented soil been brought onto the property at any time? If yes, estimated quantity is 25,000 cubic yards.	☑ Yes	☐ No
5.	Has soil been brought onto the property that originated from a contaminated site or that is of an unknown origin?	☐ Yes	☑ No
6.	Are there currently, or have there been previously, any pits, ponds, or lagoons located on the *property* in connection with waste treatment or waste disposal?	☐ Yes	☑ No
7.	Is there currently, or has there been previously, any stained soil on the *property*?	☐ Yes	☑ No
8.	Are there currently, or have there been previously, any registered or unregistered storage tanks (above or underground) located on the *property*?	☑ Yes	☐ No
9.	Are there currently, or have there been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the *property* or adjacent to any structure located on the *property*?	☐ Yes	☑ No
10.	Are there currently, or have there been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors?	☐ Yes	☑ No
11.	Are there any domestic, irrigation or monitoring wells on the property?	☐ Yes	☑ No
12.	If the *property* is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?	☐ Yes	☑ No
13.	Have you been informed of the past or current existence of *hazardous substances* or *petroleum products* or environmental violations with respect to the *property* or any facility located on the *property*?	☑ Yes	☐ No
14.	Have there been any *environmental site assessments* of the *property* or facility that indicated the presence of *hazardous substances* or *petroleum products* on, or contamination of, the *property* or recommended further assessment of the *property*?	☐ Yes	☑ No
15.	Have there been any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any *hazardous substance* or *petroleum products* involving the *property*?	☐ Yes	☑ No
16.	Has there been any past agricultural use of the *property*, such as orchards or seed crop cultivation?	☑ Yes	☐ No
17.	Have any *hazardous substances* or *petroleum products*, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried and/or burned on the *property*?	☐ Yes	☑ No
18.	Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?	☐ Yes	☑ No

If a "Yes" response was provided to any of the above questions, please provide details below:

There was about 25,000 cubic yards of clean soil deposited on the property in the northwest quadrant in 2019. It was excess dirt from a residential subdivision which the Owner is developing in the immediate vicinity. There were several oil wells, oil pipelines and a small tank farm on the property which were operated by Shell Oil and later Occidental Petroleum. The tanks and pipelines were removed and the wells were abandoned in the late 1990"s. Groundwater was monitored and cleared and impacted oily dirt was remediated under the oversight of the California Regional Water Quality Control Board which issued letters of no further action on July 7, 2000 and March 29, 2001

I certify that the information herein is true and correct to the best of my knowledge as of the date signed below.

Name (Printed/Typed): Richard Sestero

Signature: Richard Sestero Date: 3/24/20



APPENDIX H

QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONAL

SHAWN MUNGER, CHG
Principal Geologist

EDUCATION

BS, Geology, U.C. Davis, 1985

EXPERIENCE

Years with ENGEO: 31
Years with Other Firms: 0

REGISTRATIONS & CERTIFICATIONS

Certified Hydrogeologist, CA, 413

8 Hour HAZWOPER Training, CA, 160115576014

Professional Geologist, CA, 5810

Certified Environmental Manager, NV, 1332

40 Hour HAZWOPER Training, CA, 100830513934

SPECIALIZATIONS

- Environmental Assessments and Remediation
- Environmental Restoration
- Water Quality Studies
- Water Wells/Hydrogeology

Since joining ENGEO in 1985, Shawn has been managing groundwater supply evaluations, hydrogeologic studies, chemical assessments, Phase I and II Site Assessment projects, UST site investigations, risk based corrective action (RBCA), VOC remediation, and agricultural impact evaluations. He serves as Principal-in-Charge or Project Manager for environmental and hazardous materials projects involving groundwater hydrology, contaminant fate and transport, and remediation. He is Principal-in-Charge of the environmental components of our on-call contracts with the City of Sacramento and the County of Sacramento.

Select Project Experience

14234 Saratoga Sunnyvale Road—Saratoga, CA
Project Geologist. Shawn performed Principal review of ENGEO's environmental documents. This 2.2-acre townhome site is planned for a new multi-family development comprising up to 20 units in 8 buildings. The site immediately borders Saratoga Creek and contains numerous mature trees, many of which are to be saved. Site challenges include shallow groundwater, creek bank stability, and the potential for liquefaction and lateral spreading.

Lenihan Dam Outlet Modification—Los Gatos, CA
Principal Geologist. Shawn provided technical advice, coordination, consultation, and review of ENGEO's documents to provide quality mitigation measures. The findings were presented to SCVWD and it was concluded that the stockpile was sufficient for transportation. This analysis led to significant project budget savings by avoiding removal and disposal at a solid waste disposal facility. The project consisted of a stockpile approximately 6,000 cubic yards that required profiling as requested by Santa Clara Valley Water District before use of as site backfill.

199 River Oaks Parkway—San Jose, CA
Principal in Charge. Shawn provided principal oversight, data analysis, and consultation regarding site characterization, risk evaluation, and demolition observation plans. The project consists of a proposed six-story podium structure with one level to be constructed below grade. The property is a former semiconductor facility that has received conditional closure from the Regional Water Quality Control Board and is approved for construction.

Riverside Avenue Property—Roseville, CA
Principal in Charge. Shawn provided principal oversight of a Phase II Environmental Site Assessments and site

characterization. The project site consists of an active auto sales and service facility. The historic use of the facility for industrial purposes resulted in soil and groundwater impacts beneath the site. The City of Roseville revised its plans for acquiring and redeveloping the site due to the identified soil and groundwater impacts.

1301 Standard Oil Ave—Pittsburg, CA
Principal in Charge. Shawn provided principal oversight of a Phase II Environmental Site Characterization. The property is an abandoned wastewater treatment plant with processing buildings, clarifier tanks, and sludge beds.

Pleasant Hill BART Station—Walnut Creek, CA
Principal in Charge. Shawn provided oversight, data analysis and consultation during the preparation of a Phase II Environmental Site Assessment. The property is an existing BART station that encompasses 20 acres, including the platform/station area, electrical facilities, a parking garage and additional paved parking areas.

County Crossings Property—Antioch, CA
Principal in Charge. Shawn provided environmental consultation and data review with regard to soil and groundwater contamination. Constituents of concern include petroleum hydrocarbons, nitrates and manganese. The approximately 264-acre site includes several former industrial facilities and petroleum pipelines. Soil and groundwater at the site has been impacted with petroleum hydrocarbons, nitrates and manganese. Planned uses include commercial, residential, retail, and a BART-oriented transit village. The center, which is currently in the entitlement phase, is estimated to break ground in 2011.

620 North Ninth Street—San Jose, CA
Principal in Charge. Shawn provided oversight of soil, groundwater and soil gad characterizations, risk evaluations and Remedial Action Plan preparation. Shawn also closely interacted with RWQCB staff to achieve approval for residential development. The property is a former fruit packing plant and food preparation facility. The proposed development consists of a single-family residential subdivision.

Westshore—Richmond, CA
Project Manager. Shawn conducted Phase I and II Site Assessments, risk evaluations and prepared a soil management plan. The property was a former automotive manufacturing plant proposed for a multi-unit condominium development, including a 6-story podium structure to include five residential floors with 269 units and one parking floor.

Mills Ranch—King City, CA
Principal in Charge. Shawn provided principal oversight of Phase I/II Environmental Site Assessments and risk evaluations. The approximate 80-acre property is used for agricultural cultivation and commercial uses. The proposed mixed-use development includes over 400 single-family residential lots.

Select Foods Site/Cross Creek—Hayward, CA
Principal in Charge. Shawn provided principal oversight, consultation, and data analysis. The property was a former processed food facility, a drum recycling business, battery manufacturing operation and a bus assembly plant. Following completion of soil remediation under RWQCB oversight, the property was developed into a single-family residential subdivision.

Arroyo Crossing—Livermore, CA
Principal in Charge. Shawn provided oversight, data analysis and regulatory consultation while ENGEO provided geotechnical and environmental engineering services for this 34-acre site. This former corporation yard and quarry site was developed into a single-family residential subdivision.

Renaissance Square—Concord, CA
Project Manager. Shawn provided consultation, data analysis, and field observation. This former automotive dealership was redeveloped as a five-story multi-family residential structure supported on slab-on-grade foundations, with two levels of below-grade parking. Petroleum hydrocarbon-impacted soil was encountered during excavation of the parking structure, which required characterization and remediation. Soil impacts were attributed to former sumps, USTs and hydraulic lifts.

Union Pacific Railroad Corridor—San Jose, CA
Project Manager. Shawn prepared a Phase I and II Environmental Site Assessment. Work included a site reconnaissance, historical records research and recovery of soil samples with laboratory analysis. Lead impacted soil was identified which required risk evaluation. This former1800 lineal foot section of the former Union Pacific Railroad Corridor was proposed for mixed-use development.

Former SFPP Alignment—Concord, CA
Project Manager. Shawn prepared a Phase I and II Environmental Site Assessment. The site was a former ±6,500-foot corridor formerly occupied by the Southern Pacific Railroad. Kinder Morgan petroleum pipelines existed within an easement along the property. The southern portion of the site was crossed by East Bay Municipal Utilities District water distribution lines and a multi-lane highway overpass. The corridor was developed as a self-storage facility. Work included the recovery of soil and groundwater samples along the SP right of way.

Hercules Property—Hercules, CA
Project Manager. Shawn provided oversight of a Phase I Environmental Site Assessment, site asbestos survey, site characterization, and demolition observation/contaminant assessment. The project area consists of ±167 acres located near and along the southeastern shore of San Pablo Bay in Hercules. The property was once a portion of a 1300-acre manufacturing facility that was operated by DuPont from 1879 to 1913 and Hercules Incorporated from 1913 to 1979. The planned development includes single/multi-family residential development with some commercial components.

Highlands Ranch—Antioch, CA
Principal in Charge. Shawn provided oversight, data analysis, and collaboration with RWQCB personnel. The project site consists of a 140-acre portion of the former Chevron Los Medanos Tank Farm located in Pittsburg, California. The site was historically occupied by 24 crude oil tanks and four wax ponds. Remediation of the crude oil tank and wax pond locations was conducted according to a remedial action plan (RAP) and oversight was provided by the CRWQCB. Remediation was performed over a period of four months and consisted of excavating approximately 110,000 cubic yards of impacted soil and placing the material in windrows for ex-situ bioremediation.



ENGEO
Expect Excellence

Appendix G

Project No.
3359.210.001

January 26, 2021
Revised January 27, 2021

Mr. Louis Parsons
West Coast Home Builders, Inc.
4021 Port Chicago Highway
Concord, CA 94520

Subject: Bridle Gate
Sand Creek Road and San Jose Ave.
Brentwood, California

PHASE II ENVIRONMENTAL SITE ASSESSMENT

References:
1. ENGEO; Phase I Environmental Site Assessment; Bridle Gate; Brentwood, California; May 6, 2020.
2. ENGEO; Geotechnical Exploration; Ellisondo Property; Brentwood, California; September 15, 1999.
3. Isakson & Associates Inc.; Vesting Tentative Map Subdivision 8506; Bridle Gate; City of Brentwood; Contra Costa County; January 9, 2020.

Dear Mr. Parsons:

As requested, we are pleased to submit this phase II environmental site assessment (ESA) to assist with environmental due diligence services for the subject project in Brentwood, California (Property).[1] ENGEO's staff and consultants conducted a detailed analysis of the Property to determine whether hazardous materials are present at the site in quantities that are sufficient to cause adverse human health effects. As we will explain in further detail below, constituents observed in soils and soil vapors appeared in concentrations that are below applicable screening thresholds. Our analysis confirmed that existing conditions at the Property will not cause adverse human health effects. Furthermore, all construction at the Property will adhere to a detailed Soil Management Plan (SMP) that will provide protocols to mitigate unforeseen impacts that may be encountered during the construction process.

Finally, we reviewed comments from the public suggesting that closed oil and gas wells on the Property might result in potential subsidence affecting future structures. We have thoroughly evaluated potential geotechnical concerns and find no evidence of future soil stability issues associated with the abandoned well locations. The evidence supporting these conclusions are found in the Phase I ESA prepared for the Property, as well as the Final Environmental Impact Report for the Bridle Gate Project, which memorializes input ENGEO provided to the City on the Property's soil characteristics.

[1] The Property is located at Sand Creek Road and San Jose Avenue in Brentwood, California. The approximately 133.7-acre Property is identified as Assessor's Parcel Number (APN) 019 082-007. The Property consists of partially graded open space.

BACKGROUND

The purpose of this phase II ESA is to ensure that potential hazardous substances located at the Property are identified, analyzed, and (if necessary) mitigated. The phase II ESA was conducted in general accordance with ASTM E1903-97: *Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process*. Furthermore, the previous phase I ESA complies with the Environmental Protection Agency All Appropriate Inquiry regulations.

ENGEO began the process of evaluating conditions at the Project site with the phase I ESA (Reference 1), which was completed in May 2020. The phase I ESA ultimately identified several locations at the Property (known as "Recognized Environmental Conditions" or "RECs") that could potentially be a source for hazardous materials.

Specifically, the phase I ESA identified several potential RECs:

- Seven[2] oil-producing wells that operated at the Property between 1962 and 1966 (Figure 2);[3]
- An above-ground storage tank complex that was used to store separated oil, condensate, and water that was decommissioned in 1996 (Figure 2); and
- The former Brentwood crude oil pipeline, which also operated within the Property (Figure 2).[4]

Investigation under this phase II process determined that while potential residual impacts remain within the vicinity of the former oil wells, the former Brentwood crude oil pipeline, and the former tank farm, these residual impacts do not include contaminants that are present at levels that exceed screening thresholds. Due to (1) the relatively minute concentrations of residual contaminants at the Property and (2) the Property's unique soil conditions, the residual impacts do not pose a threat to human health or safety.

Please note that the seven wells on the Property were documented as abandoned in accordance with the applicable DOGGR requirements at that time. Certification of abandonment requires a DOGGR review of installation, production, and abandonment procedures documented for the well. This is followed by a physical field inspection by a DOGGR representative to confirm field conditions satisfy DOGGR abandonment protocols.

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[2] Our Phase I ESA previously noted eight former production wells due to a discrepancy between RWQCB and CalGEM historic recordings for well 3-10. Two well locations were initially mapped for this well within approximately 100 feet of each other. We performed a geophysical survey to confirm the one location for well 3-10. There is a total of seven former production wells within the Property.

[3] These wells were decommissioned and abandoned in accordance with the Department of Oil and Gas (now CalGEM) regulations. Records of abandonment were reviewed on the CalGEM website.

[4] Remedial activities for the decommissioning of the well sites and tank farm included soil, excavation, bioremediation, soil sampling/analysis, and groundwater monitoring. Confirmation sampling and laboratory testing demonstrated successful remediation to the approved cleanup objectives set forth by Central Valley RWQCB. Closure letters for the Sullenger Tank Farm, Ward Tank Farm, and Wells 3 10, 34-10, 32-10, and 38-10 were issued in 1996 through 2000 by the Central Valley RWQCB. Confirmation samples obtained from the bioremediated soil stockpile had TPH concentrations up to 1,800 parts per million (ppm) which exceeds screening levels. We understand this soil was used as backfill for oil well remedial excavations.

SCOPE OF FIELD WORK

Our phase II ESA included sampling and laboratory analysis of soil and soil vapor. In November 2020, ENGEO representatives travelled to the Property to extract soil and soil vapor samples.[5] The samples were then submitted to a State-certified laboratory for further testing and evaluation.[6] The methods and procedures used in the phase I and phase II ESAs prepared for the Property are in general conformance with the nationally recognized standards, ASTM E1527-13 and ASTM E1903-19, along with Environmental Protection Agency All Appropriate Inquiry regulations.

Soil Assessment

Between November 2 and November 5, 2020, 94 soil samples were collected from the vicinity of the seven abandoned oil wells and the former tank farm. Samples were collected at two depths (5 and 10 feet) at five locations per well and twelve locations within the former tank farm area.[7] We submitted the samples for laboratory analysis to test for the presence of the following chemical compounds:

- Total petroleum hydrocarbons as gasoline (TPH-g), BTEX, and MTBE (EPA Method 8260).
- Total petroleum hydrocarbons as diesel (TPH-d) and total petroleum hydrocarbons as motor oil (TPH-mo) (EPA Method 8015 with silica gel cleanup).

Soil Vapor Assessment

On November 2 through November 5, 2020, ENGEO collected soil vapor samples from sampling points that were installed at 10 locations (Figure 2). Samples were collected from probes that were installed at approximately 6 feet below the ground surface.[8] Following collection, the soil

[5] Prior to drilling, an ENGEO representative contacted USA North Service Alert to facilitate notification of operators of utilities at or near the Property. We retained a C-57 licensed direct push contractor to advance sample borings at the Property. Sample locations are shown on Figure 2. Following issuance of Contra Costa County Environmental Health drilling permits, drilling was performed on November 2 through November 5, 2020. Borings were backfilled with cement grout in accordance with drilling permits.

[6] Upon collection of soil and soil vapor samples, a label was placed on each sample, including a unique sample number, sample location, time/date collected, laboratory analysis, and the sampler's identification. The samples were submitted under documented chain-of-custody to a Torrent Laboratory, Inc., a State certified laboratory located in Milpitas, California.

[7] Samples were recovered within continuous Geoprobe® acetate core liners. Specific soil samples were collected for laboratory analysis by cutting 6-inch portions of the Geoprobe soil core liners; the samples were then transferred into 2-inch by 6-inch stainless steel liners. Following transfer, the sample liners were sealed using Teflon® sheets secured by tight-fitting plastic end caps and tape.

[8] The soil vapor samples were collected from temporary probes advanced with a Geoprobe direct-push rig and constructed in general accordance with the Department of Toxic Substances Control Final Advisory Active Soil Gas Investigations (July 2015) and under permit from the Contra Costa County Environmental Health. The temporary soil vapor wells were constructed with ¼-inch-diameter Teflon tubing equipped with a filter at the base of the tubing. The temporary well installation consisted of an approximately 3 inch-diameter boring to a depth of 6 feet below the ground surface. For each location, the bottom of the well casing was equipped with a 1-inch-long filter situated at 6 feet below ground surface, centered in the middle of a 2-foot layer of No. 3 sand. The remaining annular space was filled with hydrated bentonite grout to 6 inches below grade.

vapor samples were submitted for laboratory analysis to test for the presence of the following chemical compounds:

- Volatile organic compounds (VOCs) and TPH-g (EPA Test Method TO-15)
- Fixed Gases (EPA Test Method D1946)

ANALYTICAL LABORATORY RESULTS

A summary of laboratory results is provided in the attached tables, and the laboratory reports are presented in their entirety in Appendix A.

Soil

Soil samples in four locations showed detectable constituents, but at concentrations below screening levels. The concentrations of TPH-d that were identified are below the San Francisco Bay Regional Water Quality Control Board's (RWQCB) established site-specific cleanup levels for the project and do not require further evaluation or mitigation. Complete results of our analysis are summarized in Tables A and B.[9]

Soil Vapor

The analyzed soil vapor samples reported detectable concentrations of several VOCs, including benzene, chloroform, ethylbenzene, and total xylenes. However, all of these compounds were detected below applicable residential vapor intrusion screening levels.[10] Based on RWQCB

Once the installation of the annular seal was complete, the well casings were equipped with a permanent Swagelok ® ferrule and nut. The wells were inactive for a mandatory 2-hour equilibration time. After the 2-hour equilibration time elapsed, the sample train was connected to the well tubing by threading the permanent Swagelok ® fitting on the well casing onto the manifold. The sample train consisted of a stainless steel, twin summa quick-connect manifold with a built in flow controller set at 150 millimeters per minute (ml/min). A purge vacuum canister was attached to the manifold connection closest to the well casing, and the sample canister was connected to the manifold fitting furthest away from the well casing. Prior to sample recovery a minimum of three well volumes were purged from each temporary soil vapor well by opening the well to the purge vacuum canister. Once the appropriate volume was purged from a well, the purge canister was closed. Samples were then recovered by opening the valve to the vacuum sample canister. DFA was used as a leak check compound during sample recovery. DFA was applied to a rag and placed in close proximity to the manifold and well opening.

[9] Low to non-detectable (ND) concentrations were reported for TPH-g in samples analyzed. TPH d and –mo were detected. Detected concentrations of TPH-g ranged from 0.101 milligrams per kilogram (mg/kg) to 177mg/kg, below Regional Water Quality Control Board's (RWQCB) residential Environmental Screening Levels (ESLs). (*See* San RWQCB Environmental Screening Levels, Table S-1, Direct Exposure, Shallow Soil, assuming a Residential Land Use Scenario, January 2019 (Rev.2).) TPH-d ranged from ND to 454 mg/kg. The following samples exhibited a concentration of TPH-d above the current residential ESLs: S-31-10-E@10', S-31-10-S@10', S-31-10-W@5', S-31-10-W@10', S TF-7@10', S-TF-11@5', S-TF-8@5', and S-TF-8@10' (please see discussion of screening levels and implications in the next section of this report). TPH-mo ranged from ND to 961 mg/kg. TPH-mo did not exhibited concentrations over applicable screening levels. MTBE and BTEX compounds were not detected in any samples analyzed. The reported concentrations are below the site-specific screening levels developed by the RWQCB.

[10] Screening levels for chemicals in soil, groundwater, and soil gas are not intended to establish regulations or restrictions on land use nor to establish any mitigation or remediation requirements, and "the presence of a chemical at concentrations in excess of a screening does not necessarily indicate adverse effects on human health or the environment, rather that additional evaluation is warranted." (San Francisco Bay

policies that determine whether these types of chemicals pose a risk to health and safety, our analysis has confirmed that none of these detected chemicals pose a residential health risk, and the presence of these soil vapors would not require further study or mitigation.[11] Levels were so low that vapor barriers would not be necessary to install in habitable structures, as discussed further in the next section. As such, indoor and outdoor air are not significant concerns for the proposed residential, commercial, and/or school development. Furthermore, due to outdoor air circulation patterns that disperse constituents in outdoor settings to levels that are substantially lower than indoor settings, there are no expected human health risks at any outdoor locations at the Property.

SCREENING LEVELS

As a general principal, VOCs in soil gas become a concern when soil gas threatens human health by entering indoor air through vapor intrusion. It is important to examine the extent to which soil vapors become less concentrated as they rise to the surface. The screening levels for soil gas are therefore calculated based on a ratio of the acceptable indoor air concentration to the soil gas concentration. This ratio is referred to as an "attenuation factor."[12]

Regional Water Quality Control Board, User's Guide: Derivation and Application of Environmental Screening Levels (ESLs), Interim Final 2019 (Revision 1) Water Board Environmental Screening Levels.) Health and Safety Code Section 57008(a)(3) of SB 32 states the following:

> *A screening number is solely an advisory number, and has no regulatory effect, and is published solely as a reference value that may be used by citizen groups, community organizations, property owners, developers, and local government officials to estimate the degree of effort that may be necessary to remediate a contaminated property. A screening number may not be construed as, and may not serve as, a level that can be used to require an agency to determine that no further action is required or a substitute for the cleanup level that is required to be achieved for a contaminant on a contaminated property.*

[11] The analyzed soil vapor samples reported detectable concentrations of several VOCs, including benzene, chloroform, ethylbenzene, and total xylenes. Benzene was detected in sample SG-3 10, SG-TF1, SG-TF2, and SG-TF3 at concentrations of 3.8 micrograms per cubic meter (µg/m3), 4.8 µg/m3, 3.5 µg/m3, and 5.1 µg/m3, respectively. These concentrations are above the RWQCB residential screening level of 3.2 µg/m3; however, it is below the recognized RWQCB low-threat closure policy concentration of 85 µg/m3. Chloroform was detected in samples SG-3-10 and SG TF1 at concentrations of 4.3 µg/m3 and 8.7 µg/m3, respectively. These concentrations are above RWQCB residential screening level of 4.1 µg/m3. Ethylbenzene was detected at 1,400 µg/m3 for SG-39, above its residential screening level of 37 µg/m3. Total xylenes was reported in one sample, SG-39 at a concentration of 6,100 µg/m3, above RWQCB residential screening level of 3,500 µg/m3.

[12] The indoor air screening levels for select VOCs are shown in Table 1A and Table 1B below and are the same for both the RWQCB and Department of Toxic Substances Control (DTSC). DTSC's most recent guidance related to site assessments for vapor intrusion concern (2011 Vapor Intrusion Guidance) recommends using default attenuation factors based on six different building scenarios, which can be applied for site-specific conditions. DTSC developed their default attenuation factors using the national empirical vapor intrusion database (U.S. EPA, 2008; U.S. EPA's Vapor Intrusion Database: Preliminary Evaluation of Attenuation Factors, March 4, 2008). Soil vapor and paired indoor air measurements, consisting of 311 samples at 13 sites, were reviewed. An attenuation factor of 0.05 (or 20), representing approximately the 90th percentile of the data, was selected as an appropriate attenuation factor for existing residential structures. For new residential construction, the DTSC attenuation factor is 0.001 (or 1,000). Prior to January 2019, the SFRWQCB used an attenuation factor of 0.002 (or 500). However, in January 2019, the SFRWQCB updated its environmental screening levels to use the U.S. EPA's generic attenuation factor of 0.03 (or 33). (*See* San Francisco Bay Regional Water Quality Control Board Update to

In April 2019, DTSC's Human and Ecological Risk Office (HERO) released updated guidance for calculating the extent of attenuation that occurs when soil vapors travel to the surface. According to HERO's guidelines, attenuation of measured soil gas concentrations should be calculated using two screening levels – one calculated based on the recommended attenuation factor for new residential construction of 0.001, and one calculated based on the U.S. EPA's generic attenuation factor of 0.03.

TABLE 1A: Indoor Air Screening Levels

CHEMICAL	INDOOR AIR (residential) in µg/m³		US EPA GENERIC ATTENUATION FACTOR
	SF REGIONAL BOARD	DTSC	
Benzene	0.096	0.096	3.2
Total Xylenes	105	--	3,500
Ethyl Benzene	1.11	--	37
Chloroform	0.123	--	4.1

TABLE 1B: Soil Gas Screening Levels

CHEMICAL	SUB-SLAB SOIL GAS (residential) in µg/m³	
	SF REGIONAL BOARD	DTSC
Benzene	3.2	3.2
Total Xylenes	3,500	--
Ethyl Benzene	37	--
Chloroform	4.1	--

SITE-SPECIFIC ATTENUATION FACTORS

The screening levels used by the RWQCB and DTSC are based on generic factors that do not consider site-specific soil conditions. For example, if the soil at a site is more dense (less permeable) than the generic soil used, then it would be less likely that soil gas could travel through the soil and enter the indoor air above.

ENGEO has extensive knowledge of the geotechnical characteristics of the soil present at the Property. We performed geotechnical exploration of the subject Property and prepared geotechnical recommendations for grading and foundations for the Property (Reference 2). Soil throughout the Property typically consists of sandy to silty clay with some silty and clayey sand layers. These soil conditions will cause soil vapors to reach the surface in much smaller volumes compared to soil conditions at other locations.[13]

Environmental Screening Levels dated January 24, 2019.) This dramatically reduced the screening levels for numerous VOCs.

[13] In order to predict the actual indoor air concentrations, we used the Johnson & Ettinger Model Spreadsheet, Version 6.0, developed by the US EPA and most recently revised in September 2017. The Johnson and Ettinger (J&E) Model (1991) calculates site-specific attenuation factors that are used to predict indoor air concentrations resulting from subsurface vapor migration into indoor air. The US EPA programmed the J&E model and added a health risk component in 1998 and provides updates as needed. We utilized the latest version, Version 6.0 updated in September 2017 for this assessment. The soil used in our model was the default silty clay option, which assumes several soil characteristics, most notably that the total porosity of the soil is 0.481. Porosity is defined as the ratio of the volume of voids to the total

Here, our analysis conservatively assumes that almost 48 percent of the soil under the new residential structures will be void space prior to the construction of new residences. However, during the construction process, soil beneath new residences will be compacted.[14] Compaction of the soil reduces the void space significantly and typically results in a much lower porosity than the model assumes, thereby increasing the attenuation factor.

Our analysis confirmed that localized soil characteristics will cause volatile organic compound concentrations to be present in indoor air at less than 1/1000th the total concentration that was measured in our field samples. The results of the modeling are shown in Table 2.[15]

TABLE 2: Attenuation Factors

CONSTITUENT OF CONCERN	MAXIMUM DETECTED CONCENTRATION (µG/M^3)	SOURCE TO INDOOR AIR ATTENUATION FACTOR	INDOOR AIR CONCENTRATION DUE TO VAPOR INTRUSION (µG/M^3)	RWQCB INDOOR AIR SCREENING LEVEL (µG/M^3)	INCREMENTAL CANCER RISK FROM VAPOR INTRUSION
Chloroform	8.7	1,666(0.0006)	0.005	0.12	4.42E-08
Benzene	5.1	1428 (0.0007)	0.003	0.097	9.89E-09
Ethyl Benzene	1,400	1,666(0.0006)	0.79	1.1	7.04E-07
Total Xylenes	6,100	1,666(0.0006)	3.40	100	None

Based on the results of the modelling, the predicted indoor air levels for the constituents of concern are well below the RWQCB residential screening levels. In fact, predicted levels are estimated to be below screening levels by several orders of magnitude.

CONCLUSION

Based on this assessment and analytical results, the Property does not appear to have been significantly impacted due to past use. While our analysis indicates that soil around abandoned well S-31-10 (at 5 and 10 feet) and select locations in the former tank farm (S-TF-7, S-TF-8, and S-TF-11) have detected concentrations of TPH-d, no hazardous materials will be present in quantities sufficient to impact human health or safety. Further, soil gas testing has verified there

volume and indicates the relative amount of void space in the soil. The lower the porosity, the denser the soil.

Similarly, we used the default slab-on-grade foundation type. The default foundation type used by the model is a conservative approach, as it assumes a thickness of approximately 4 inches for the foundation slab. It also assumes a certain amount of the slab cracks. The actual foundation recommended may be thicker and have far less cracking than the default model parameters assumes. Slab on-grade structures use a 4-inch non-structural mat.

[14] Our recommendations for the Property are to compact soil to a relative compaction of 85 to 90 percent at a moisture content of at least 4 percentage points above optimum for expansive material and 90 percent at a moisture content above optimum for non-expansive soil. Site soil is considered to have moderate to high potential shrink-swell behavior.

[15] This model was used to confirm that the attenuation factor at the Property is greater than the generic attenuation factors assumed by both DTSC, US EPA, and the RWQCB. As seen below, the model predicted an attenuation factor and indoor air concentration for each of the VOCs that were detected above their applicable ESL using site-specific and default parameters shown on copies of model runs provided in Appendix B.

is no indoor air risk for future structures, or any outdoor air risk. In addition, a Soil Management Plan (SMP) has been prepared for the Property that will ensure risks are less-than-significant, in part by outlining procedures and protocols in the event that unidentified impacts are encountered during redevelopment.

Accordingly, construction crews will diligently monitor conditions on the ground to ensure strict compliance with all safety protocols, including the SMP.

From an environmental perspective, it is our opinion that residential and school site redevelopment is viable for the Property. With respect to the former wells and tank farms, significant impacts were not identified. If areas of minor impact are encountered based on past use, these areas will be handled with the proposed SMP during grading. A geotechnical professional should be present during any grading activities in these areas to comply with the SMP.

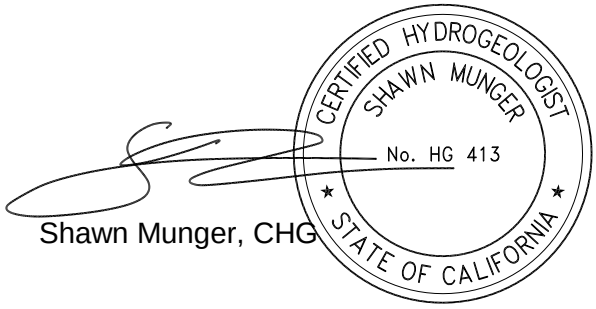
If you have any questions regarding this document, please do not hesitate to contact us.

Sincerely,

ENGEO Incorporated

Brooke Spruit

Brooke Spruit, PE



Shawn Munger, CHG

tw/bs/sm/cjn

Attachments: Figures 1 – 2H
Tables A and B
Appendix A – Torrent Laboratory, Inc., Laboratory Analysis Reports
Appendix B – Johnson & Ettinger Model Outputs
Appendix C – NorCal Geophysical Survey

FIGURES

Figure 1: Vicinity Map
Figure 2: Site Plan
Figure 2A – 2H: Sample Locations



BASEMAP SOURCE: ESRI MAPPING SERVICE 2017

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VICINITY MAP

BRIDLE GATE

BRENTWOOD, CALIFORNIA

PROJECT NO. :	3359.210.001
SCALE:	AS SHOWN
DRAWN BY: JV	CHECKED BY: BES

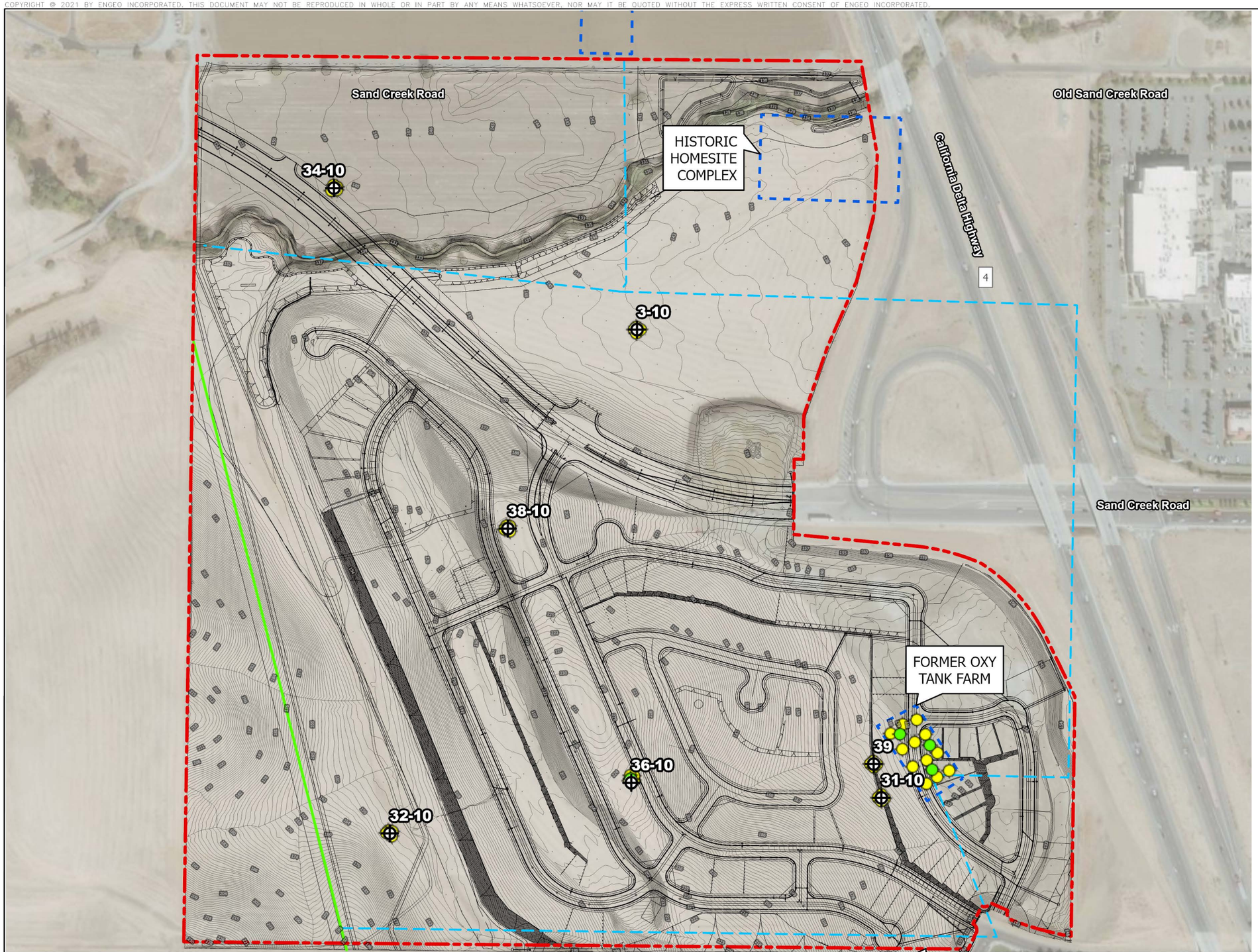
FIGURE NO. 1

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LAYOUT: VICINITY USER: QUANG

ORIGINAL FIGURE PRINTED IN COLOR

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FEET

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- PG&E Underground Gas Pipeline
- Former Brentwood Crude Oil Pipeline
- Abandoned Wellhead (Isakson, 2019/2020)
- Soil Gas Samples (ENGEO, 2020)
- Soil Gas Samples (ENGEO, 2020)

BASE MAP SOURCE: ESRI MAPPING SERVICE 2019 AND ISAKSON & ASSOCIATES, INC. JANUARY 2021

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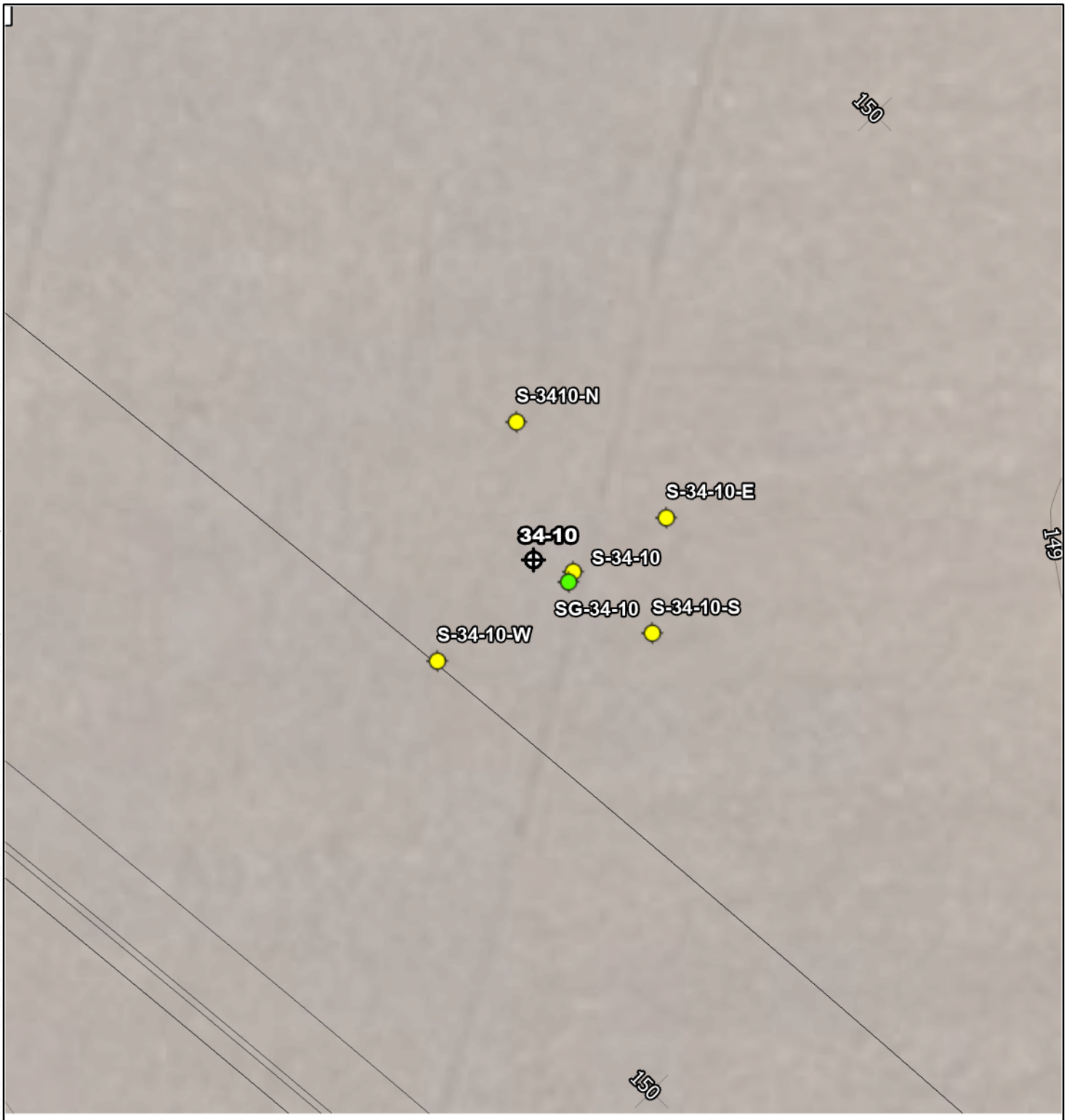
SITE PLAN
BRIDLE GATE
BRENTWOOD, CALIFORNIA

PROJECT NO. : 3359.210.001
SCALE: AS SHOWN
DRAWN BY: QRL
CHECKED BY: BES

FIGURE NO. 2

PATH: G:\DRAFTING\PROJECTS_PROMO\2020\P2020000507\ENVIRONMENTAL\ESA\P2020000507.APRX
LAYOUT: PHASE 2 SITE PLAN FIG 1 USER: QLIANG

ORIGINAL FIGURE PRINTED IN COLOR



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FEET

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- Abandoned Wellhead (Isakson, 2019/2020)
- Soil Gas Samples (ENGEO, 2020)
- Soil Gas Samples (ENGEO, 2020)

BASEMAP SOURCE: ISAKSON & ASSOCIATES, INC. JANUARY 2021, ESRI MAPPING SERVICES, 2019

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34-10
BRIDLE GATE
BRENTWOOD, CALIFORNIA

PROJECT NO. : 03359.210.001
SCALE: AS SHOWN
DRAWN BY: QRL CHECKED BY: BES

FIGURE NO. 2A

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LAYOUT: SITE PLAN USER: QLIANG

ORIGINAL FIGURE PRINTED IN COLOR



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FEET

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- Abandoned Wellhead (Isakson, 2019/2020)
- Soil Gas Samples (ENGEO, 2020)
- Soil Gas Samples (ENGEO, 2020)

BASEMAP SOURCE: ISAKSON & ASSOCIATES, INC. JANUARY 2021, ESRI MAPPING SERVICES, 2019

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3-10
BRIDLE GATE
BRENTWOOD, CALIFORNIA

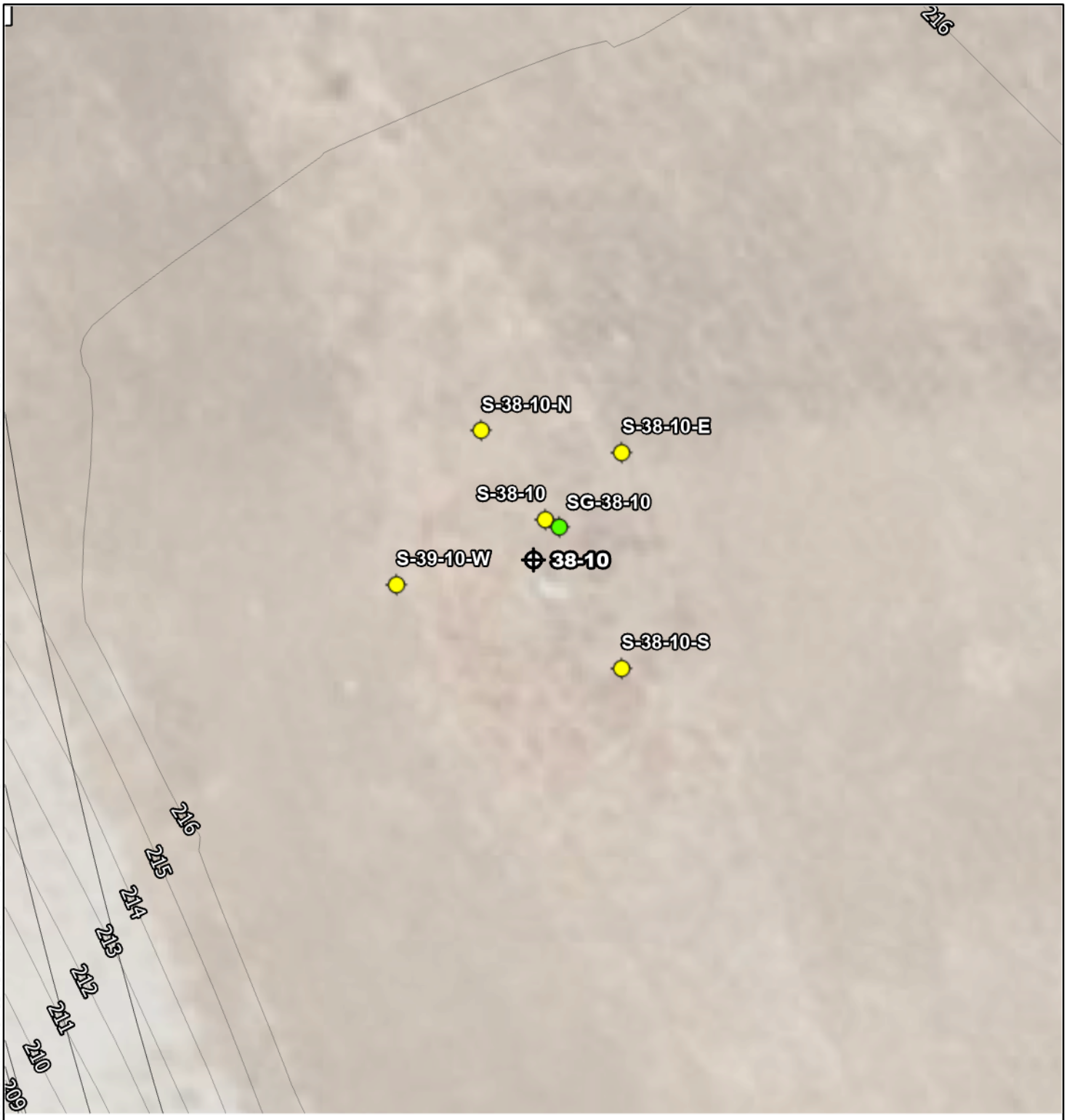
PROJECT NO. : 03359.210.001
SCALE: AS SHOWN
DRAWN BY: QRL | CHECKED BY: BES

FIGURE NO. 2B

PATH: G:\DRAFTING\PROJECTS_PROMO\2020\P2020000507\ENVIRONMENTAL\ECA\P2020000507.APRX
LAYOUT: SITE PLAN USER: QLIANG

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FEET

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- Abandoned Wellhead (Isakson, 2019/2020)
- Soil Gas Samples (ENGEO, 2020)
- Soil Gas Samples (ENGEO, 2020)

BASEMAP SOURCE: ISAKSON & ASSOCIATES, INC. JANUARY 2021, ESRI MAPPING SERVICES, 2019

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38-10
BRIDLE GATE
BRENTWOOD, CALIFORNIA

PROJECT NO. : 03359.210.001
SCALE: AS SHOWN
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FIGURE NO. 2C

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LAYOUT: SITE PLAN USER: QLIANG

ORIGINAL FIGURE PRINTED IN COLOR



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FEET

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- Abandoned Wellhead (Isakson, 2019/2020)
- Soil Gas Samples (ENGEO, 2020)
- Soil Gas Samples (ENGEO, 2020)

BASEMAP SOURCE: ISAKSON & ASSOCIATES, INC. JANUARY 2021, ESRI MAPPING SERVICES, 2019

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32-10
BRIDLE GATE
BRENTWOOD, CALIFORNIA

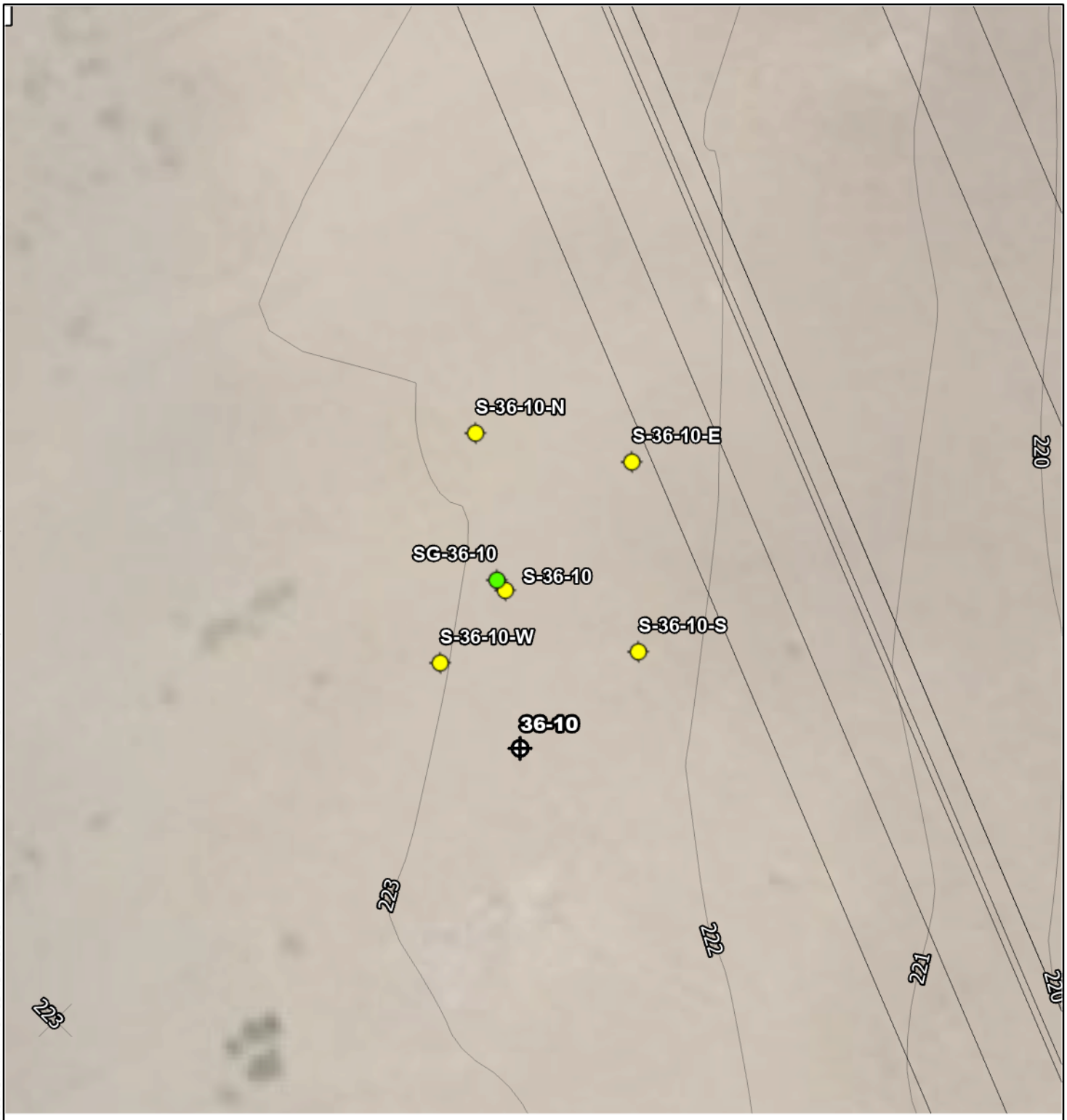
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SCALE:	AS SHOWN
DRAWN BY: QRL	CHECKED BY: BES

FIGURE NO. 2D

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LAYOUT: SITE PLAN USER: QLIANG

ORIGINAL FIGURE PRINTED IN COLOR



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FEET

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- Abandoned Wellhead (Isakson, 2019/2020)
- Soil Gas Samples (ENGEO, 2020)
- Soil Gas Samples (ENGEO, 2020)

BASEMAP SOURCE: ISAKSON & ASSOCIATES, INC. JANUARY 2021, ESRI MAPPING SERVICES, 2019

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36-10
BRIDLE GATE
BRENTWOOD, CALIFORNIA

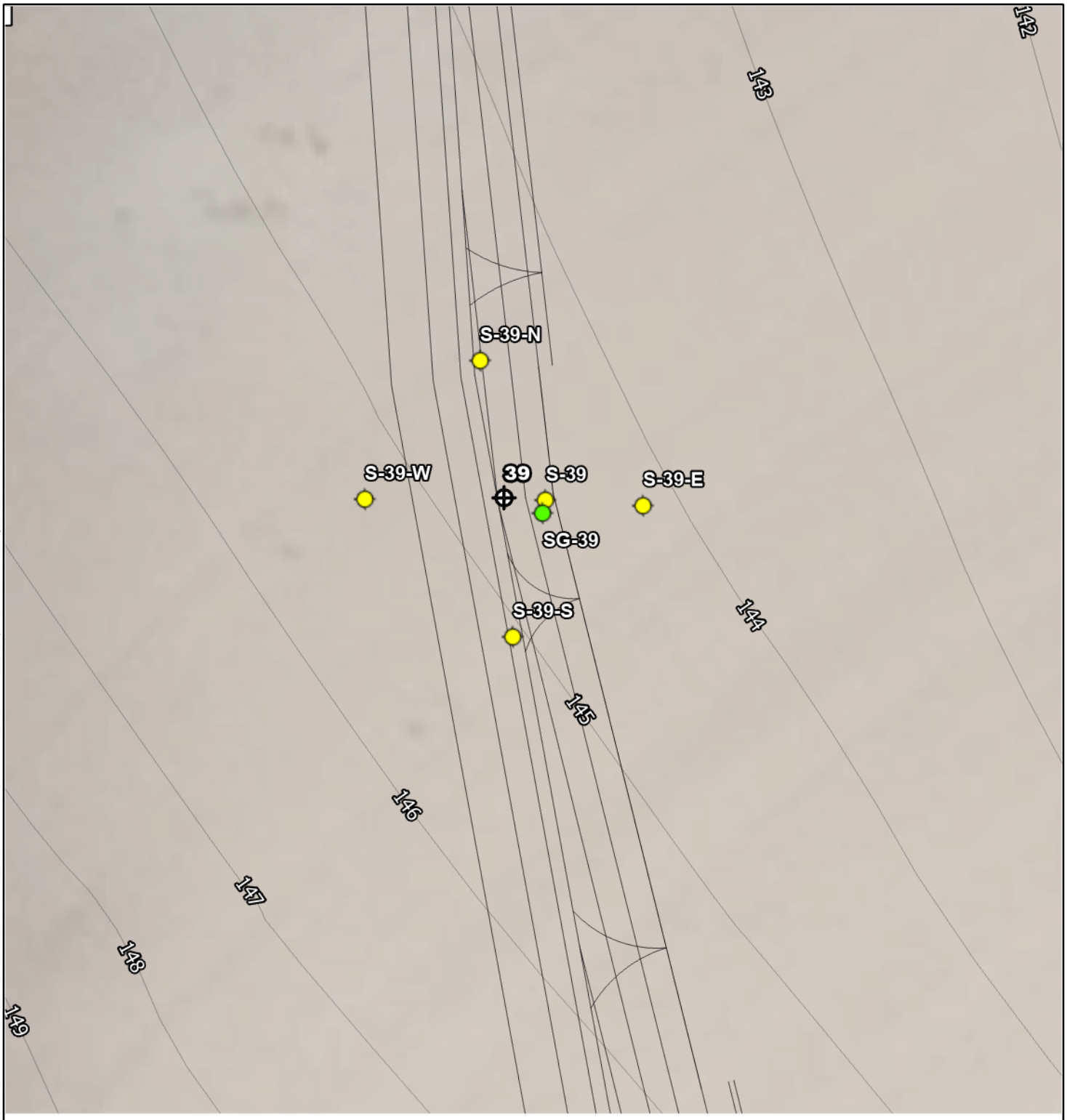
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SCALE:	AS SHOWN
DRAWN BY: QRL	CHECKED BY: BES

FIGURE NO. 2E

PATH: G:\DRAFTING\PROJECTS_PROMO\2020\P2020000507\ENVIRONMENTAL\ECA\P2020000507.APRX
LAYOUT: SITE PLAN USER: QLIANG

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FEET

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- Abandoned Wellhead (Isakson, 2019/2020)
- Soil Gas Samples (ENGEO, 2020)
- Soil Gas Samples (ENGEO, 2020)

BASEMAP SOURCE: ISAKSON & ASSOCIATES, INC. JANUARY 2021, ESRI MAPPING SERVICES, 2019

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39

BRIDLE GATE

BRENTWOOD, CALIFORNIA

PROJECT NO. :	03359.210.001
SCALE:	AS SHOWN
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FIGURE NO. 2F

PATH: G:\DRAFTING\PROJECTS_PROMO\2020\P2020000507\ENVIRONMENTAL\ECA\P2020000507.APRX
LAYOUT: SITE PLAN USER: QLIANG

ORIGINAL FIGURE PRINTED IN COLOR



N

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FEET

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- Abandoned Wellhead (Isakson, 2019/2020)
- Soil Gas Samples (ENGEO, 2020)
- Soil Gas Samples (ENGEO, 2020)

BASEMAP SOURCE: ISAKSON & ASSOCIATES, INC. JANUARY 2021, ESRI MAPPING SERVICES, 2019

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31-10
BRIDLE GATE
BRENTWOOD, CALIFORNIA

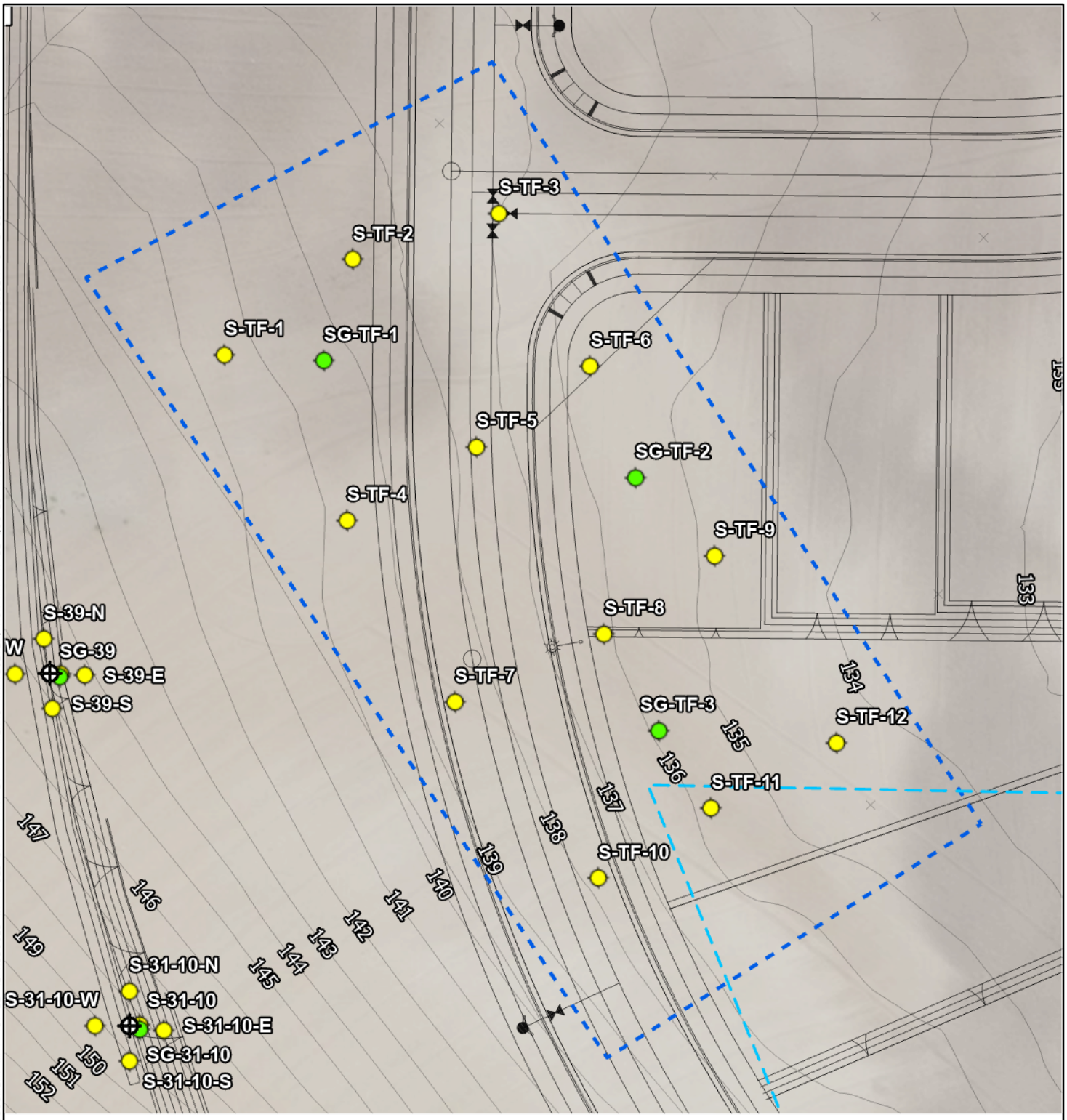
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SCALE:	AS SHOWN
DRAWN BY: QRL	CHECKED BY: BES

FIGURE NO. 2G

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LAYOUT: SITE PLAN USER: QLIANG

ORIGINAL FIGURE PRINTED IN COLOR



EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- Abandoned Wellhead (Isakson, 2019/2020)
- Soil Gas Samples (ENGEO, 2020)
- Soil Gas Samples (ENGEO, 2020)

BASEMAP SOURCE: ISAKSON & ASSOCIATES, INC. JANUARY 2021, ESRI MAPPING SERVICES, 2019

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FORMER OXY TANK FARM

BRIDLE GATE

BRENTWOOD, CALIFORNIA

PROJECT NO. :	03359.210.001
SCALE:	AS SHOWN
DRAWN BY: QRL	CHECKED BY: BES

FIGURE NO. 2H

PATH: G:\DRAFTING\PROJECTS_PROMO\2020\P2020000507\ENVIRONMENTAL\ECA\P2020000507.APRX
LAYOUT: SITE PLAN USER: QLIANG

ORIGINAL FIGURE PRINTED IN COLOR

TABLES

Table A: Soil Analytical Data
Table B: Soil Gas Analytical Data

TABLE A: Summary of Soil Analytical Results

Sample ID	Date Collected	Petroleum			Volatile Organic Compounds (VOCs)				
		TPH as Gasoline	TPH as Diesel	TPH as Motor Oil	Benzene	Ethyl Benzene	MTBE	Total Xylenes	Toluene
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
RWQCB ESLs Residential [1]		**430**	**260**	**12,000**	**0.33**	**5.90**	**47**	**580**	**1,100**
S-3-10-C@10'	11/2/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-3-10-C@5'	11/2/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-3-10-E@10'	11/2/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-3-10-E@5'	11/2/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-3-10-N@10'	11/2/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-3-10-N@5'	11/2/2020	<0.1	**3.87**	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-3-10-S@10'	11/2/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-3-10-S@5'	11/2/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-3-10-W@10'	11/2/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-3-10-W@5'	11/2/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-39-C@10'	11/2/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-39-C@5'	11/2/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-39-E@10'	11/2/2020	<0.1	**8.62**	**15.4**	<0.01	<0.01	<0.01	<0.02	<0.01
S-39-E@5'	11/2/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-39-N-@10'	11/2/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-39-N@5'	11/2/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-39-S@10'	11/2/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-39-S@5'	11/2/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-39-W@10'	11/2/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-39-W@5'	11/2/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-31-10-C@10'	11/2/2020	<0.1	**126**	**202**	<0.01	<0.01	<0.01	<0.02	<0.01
S-31-10-C@5'	11/2/2020	<0.1	**69.9**	**160**	<0.01	<0.01	<0.01	<0.02	<0.01
S-31-10-E@10'	11/2/2020	<0.1	**372**	**609**	<0.01	<0.01	<0.01	<0.02	<0.01
S-31-10-E@5'	11/2/2020	<0.1	**70.7**	**199**	<0.01	<0.01	<0.01	<0.02	<0.01
S-31-10-N@10'	11/2/2020	<0.1	**195**	**343**	<0.01	<0.01	<0.01	<0.02	<0.01
S-31-10-N@5'	11/2/2020	<0.1	**124**	**312**	<0.01	<0.01	<0.01	<0.02	<0.01
S-31-10-S@10'	11/2/2020	<0.1	**270**	**424**	<0.01	<0.01	<0.01	<0.02	<0.01
S-31-10-S@5'	11/2/2020	<0.1	**173**	**415**	<0.01	<0.01	<0.01	<0.02	<0.01
S-31-10-W@10'	11/2/2020	<0.1	**372**	**610**	<0.01	<0.01	<0.01	<0.02	<0.01
S-31-10-W@5'	11/2/2020	<0.1	**454**	**961**	<0.01	<0.01	<0.01	<0.02	<0.01
S-TF-2@10'	11/2/2020	<0.1	**12.9**	**24.2**	<0.01	<0.01	<0.01	<0.02	<0.01
S-TF-2@5'	11/2/2020	<0.1	**8.37**	**14.1**	<0.01	<0.01	<0.01	<0.02	<0.01
S-TF-3@10'	11/2/2020	<0.1	**6.97**	**11.8**	<0.01	<0.01	<0.01	<0.02	<0.01
S-TF-3@5'	11/2/2020	<0.1	**8**	**14.9**	<0.01	<0.01	<0.01	<0.02	<0.01
S-TF-6@10'	11/2/2020	<0.1	**36.2**	**131**	<0.01	<0.01	<0.01	<0.02	<0.01
S-TF-6@5'	11/2/2020	<0.1	**54.2**	**192**	<0.01	<0.01	<0.01	<0.02	<0.01
S-TF-1@5'	11/3/2020	**10.5**	**17.2**	<0.1	<0.01	<0.01	<0.01	<0.02	<0.01
S-TF-1@10'	11/3/2020	**2.91**	<10	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-TF-4@5'	11/3/2020	**9.34**	**16.4**	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-TF-4@10'	11/3/2020	**2.87**	<10	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-TF-7@5'	11/3/2020	**65.2**	**184**	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-TF-7@10'	11/3/2020	**192**	**277**	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-TF-10@5'	11/3/2020	**53.5**	**138**	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-TF-10@10'	11/3/2020	**66.2**	**92.3**	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-TF-11@5'	11/3/2020	**99.9**	**291**	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-TF-11@10'	11/3/2020	**177**	**202**	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-TF-12@5'	11/3/2020	**10.2**	**18.9**	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-TF-12@10'	11/3/2020	<2	<10	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-TF-8@5'	11/3/2020	**109**	**286**	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-TF-8@10'	11/3/2020	**176**	**269**	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-TF-9@5'	11/3/2020	**17.8**	**54.3**	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-TF-9@10'	11/3/2020	**85.4**	**135**	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-TF-5@5'	11/3/2020	**16.6**	**58.9**	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-TF-5@10'	11/3/2020	**8.74**	**17.2**	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-36-10-E@5'	11/3/2020	**96.5**	**387**	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-36-10-E@10'	11/3/2020	**19.4**	**61.1**	<0.01	<0.01	<0.01	<0.01	<0.02	<0.1
S-36-10-C@10'	11/3/2020	<0.1	**5.93**	**23**	<0.01	<0.01	<0.01	<0.02	<0.01
S-36-10-C@5'	11/3/2020	<0.1	**61.6**	**234**	<0.01	<0.01	<0.01	<0.02	<0.01
S-36-10-N@10'	11/3/2020	<0.1	**89.4**	**78**	<0.01	<0.01	<0.01	<0.02	<0.01
S-36-10-N@5'	11/3/2020	<0.1	**4.52**	**30.2**	<0.01	<0.01	<0.01	<0.02	<0.01
S-36-10-S@10'	11/3/2020	<0.1	**3.63**	**16.3**	<0.01	<0.01	<0.01	<0.02	<0.01
S-36-10-S@5'	11/3/2020	<0.1	**2.89**	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-36-10-W@10'	11/3/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-36-10-W@5'	11/3/2020	**0.101**	**61.1**	**260**	<0.01	<0.01	<0.01	<0.02	<0.01
S-32-10-C @ 5'	11/4/2020	<0.1	**19.7**	**94**	<0.01	<0.01	<0.01	<0.02	<0.01
S-32-10-C@10'	11/4/2020	<0.1	**3.09**	**16.7**	<0.01	<0.01	<0.01	<0.02	<0.01
S-32-10-E @ 5'	11/4/2020	<0.1	**2.69**	**15.1**	<0.01	<0.01	<0.01	<0.02	<0.01
S-32-10-E @10"	11/4/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-32-10-N @ 5'	11/4/2020	<0.1	**2.55**	**13.2**	<0.01	<0.01	<0.01	<0.02	<0.01
S-32-10-N @10'	11/4/2020	<0.1	**8.17**	**84.5**	<0.01	<0.01	<0.01	<0.02	<0.01
S-32-10-S @ 10'	11/4/2020	<0.1	**25.3**	**161**	<0.01	<0.01	<0.01	<0.02	<0.01
S-32-10-S @ 5'	11/4/2020	<0.1	**3.51**	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-32-10-W @ 5'	11/4/2020	<0.1	**5.78**	**29.8**	<0.01	<0.01	<0.01	<0.02	<0.01
S-32-10-W@10'	11/4/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-38-10-C @ 5'	11/4/2020	<0.1	**3.78**	**17.4**	<0.01	<0.01	<0.01	<0.02	<0.01
S-38-10-C@10'	11/4/2020	<0.1	**7.74**	**29.6**	<0.01	<0.01	<0.01	<0.02	<0.01
S-38-10-E @ 10"	11/4/2020	<0.1	**2.18**	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-38-10-E @ 5'	11/4/2020	<0.1	**3.45**	**39.3**	<0.01	<0.01	<0.01	<0.02	<0.01
S-38-10-N @ 5'	11/4/2020	<0.1	**2.13**	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-38-10-N@10'	11/4/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-38-10-S @ 10'	11/4/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-38-10-S @ 5'	11/4/2020	<0.1	**9.67**	**51.6**	<0.01	<0.01	<0.01	<0.02	<0.01
S-38-10-W @ 5'	11/4/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-38-10-W@10'	11/4/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-34-10-C@ 5'	11/4/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-34-10-C@10'	11/4/2020	<0.1	**2.01**	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-34-10-E @ 5'	11/4/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-34-10-E@10'	11/4/2020	<0.1	**2.1**	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-34-10-N @ 5'	11/4/2020	<0.1	**12.4**	**103**	<0.01	<0.01	<0.01	<0.02	<0.01
S-34-10-N@10'	11/4/2020	<0.1	**3.51**	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-34-10-S @ 5'	11/4/2020	<0.1	**2.03**	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-34-10-S@10'	11/4/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-34-10-W @ 10'	11/4/2020	<0.1	<2	<10	<0.01	<0.01	<0.01	<0.02	<0.01
S-34-10-W @ 5'	11/4/2020	<0.1	**2.54**	<10	<0.01	<0.01	<0.01	<0.02	<0.01

Notes:

<0.10 indicates the concetration was not detected above the laboratory reporting limit of 0.10 mg/kg.

BOLD indicates the concentration was detected above the laboratory reporting limits.

Highlighted indicates that the detected concetration exceeds the screening level.

[1] Regional Water Quality Control Board (RWQCB); Environmental Screening Levels (ESLs); Direct Exposure Residential Soil (Table S-1); 2019 (Rev. 2).

TABLE B: Summary of Soil Gas Analytical Results

Sample ID	Date Collected	Fixed Gases		Volatile Organic Compounds (VOCs)																				
		Oxygen	Methane	1,2,4-Trimethylbenzene	1,3-Butadiene	2-Butanone (MEK)	2-Hexanone	4-Ethyl Toluene	4-Methyl-2-Pentanone (MIBK)	Acetone	Benzene	Carbon Disulfide	Chloroform	Ethyl Benzene	Freon 113	Hexane	Total Xylenes	m,p-Xylene	o-Xylene	tert-Butanol	Tetrachloroethylene	Tetrahydrofuran	Toluene	Other VOCs
		%	%	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
RWQCB ESLs Residential [1]		**--**	**--**	**--**	**--**	**170,000**	**--**	**--**	**--**	**1,100,000**	**3.2**	**--**	**4.1**	**37**	**--**	**--**	**3,500**	**3,500**	**--**	**--**	**15**	**--**	**10,000**	**--**
SG-3-10	11/3/2020	15	<0.031	4.9	<1.1	8.8	<2.1	5.6	<2.1	17	3.8	2.4	4.3	5.3	<3.8	<1.8	23.5	17	6.5	11	6	52	21	ND
SG-39	11/3/2020	14	<0.023	<18	<10	<12	<20	<16	<22	25	<13	33	<29	1400	<31	24	6100	4800	1300	<19	<44	44	200	ND
SG-TF1	11/3/2020	14	<0.021	2.6	<1.1	<1.5	<2.1	<2.5	<2.1	<12	4.8	8.2	8.7	20	<3.8	9.8	92	72	20	11	4.6	<1.5	8.6	ND
SG-TF2	11/3/2020	14	<0.021	<2.5	<1.1	<1.5	<2.1	<2.5	<2.1	<12	3.5	6.6	4.1	<2.2	<3.8	9.8	<4.4	<2.2	<2.2	<1.5	4.7	<1.5	7.3	ND
SG-TF3	11/3/2020	15	<0.029	4.4	1.1	33	12	2.8	13	83	5.1	6.3	<2.4	2.8	<3.8	6.4	9.0	6.8	2.2	7.3	5.5	<1.5	10	ND
SG-32-10	11/5/2020	14	<0.019	<2.5	1.1	<1.5	<2.1	<2.5	<2.1	12	<1.6	8	<2.4	<2.2	4.8	4.1	<4.4	<2.2	<2.2	7.3	4.7	<1.5	6.7	ND
SG-34-10	11/5/2020	15	<0.013	<2.5	<1.1	<1.5	<2.1	<2.5	<2.1	<12	<1.6	<1.6	<2.4	<2.2	<3.8	<1.8	<4.4	<2.2	<2.2	<1.5	<3.4	<1.5	3.3	ND
SG-36-10	11/5/2020	15	<0.014	<2.5	<1.1	<1.5	<2.1	<2.5	<2.1	15	<1.6	1.8	<2.4	<2.2	<3.8	<1.8	<4.4	<2.2	<2.2	5.1	5.2	<1.5	6.2	ND
SG-38-10	11/5/2020	14	<0.014	<2.5	<1.1	<1.5	<2.1	<2.5	<2.1	<12	<1.6	<1.6	<2.4	<2.2	<3.8	<1.8	<4.4	<2.2	<2.2	<1.5	4.7	<1.5	5.3	ND

Notes:

-- no applicable screening level

<0.10 indicates the concetration was not detected above the laboratory reporting limit of 0.10 (units).

BOLD indicates the concentration was detected above the laboratory reporting limits.

Highlighted indicates that the detected concetration exceeds the screening level.

[1] Regional Water Quality Control Board (RWQCB); Environmental Screening Levels (ESLs); Subslab Soil Gas Residential and Commercial Soil Gas (Table SG-1); 2019 (Rev. 2).

ENGEO Expect Excellence

APPENDIX A

TORRENT LABORATORY, INC.
Laboratory Analysis Reports

Engeo (San Ramon)
2010 Crow Canyon Place,#250
San Ramon, California 94583
Tel: (925) 866-9000
Fax: (925) 866-0199

RE: Brindle Gate

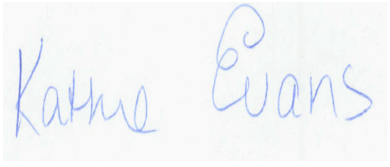
Work Order No.: 2011016

Dear Brooke Spruit:

Torrent Laboratory, Inc. received 20 sample(s) on November 03, 2020 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.



Kathie Evans
Project Manager

November 09, 2020
Date

Date: 11/9/2020

Client: Engeo (San Ramon)

Project: Brindle Gate

Work Order: 2011016

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date Received: 11/03/20
Date Reported: 11/09/20

S-3-10-S@5' 2011016-001

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-3-10-S@10' 2011016-002

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-3-10-W@5' 2011016-003

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-3-10-W@10' 2011016-004

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-3-10-E@5' 2011016-005

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-3-10-E@10' 2011016-006

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-3-10-N@5' 2011016-007

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	3.87	mg/Kg

S-3-10-N@10' 2011016-008

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-3-10-C@5' 2011016-009

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date Received: 11/03/20
Date Reported: 11/09/20

S-3-10-C@10' 2011016-010

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-39-C@5' 2011016-011

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-39-C@10' 2011016-012

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-39-W@5' 2011016-013

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-39-W@10' 2011016-014

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-39-S@5' 2011016-015

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-39-S@10' 2011016-016

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-39-N@5' 2011016-017

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-39-N-@10' 2011016-018

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date Received: 11/03/20
Date Reported: 11/09/20

S-39-E@5' 2011016-019

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-39-E@10' 2011016-020

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	8.62	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	15.4	mg/Kg

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-3-10-S@5'	**Lab Sample ID:**	2011016-001A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 8:12		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/04/20	14:50	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/04/20	14:50	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**70.6**		%	11/04/20	14:50	SN	451919

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126746 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/03/20	15:09	AD	451874
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**85.3**		%	11/03/20	15:09	AD	451874

Prep Method: 5035 **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126745 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/03/20	15:09	AD	451874
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/03/20	15:09	AD	451874
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/03/20	15:09	AD	451874
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	15:09	AD	451874
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/03/20	15:09	AD	451874
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	15:09	AD	451874
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**80.9**		%	11/03/20	15:09	AD	451874
(S) Toluene-d8	SW8260B		55.2 - 133		**100**		%	11/03/20	15:09	AD	451874
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**82.5**		%	11/03/20	15:09	AD	451874

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-3-10-S@10'	**Lab Sample ID:**	2011016-002A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 8:18		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/04/20	15:13	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/04/20	15:13	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**86.2**		%	11/04/20	15:13	SN	451919

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126746 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/03/20	16:05	AD	451874
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**93.4**		%	11/03/20	16:05	AD	451874

Prep Method: 5035 **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126745 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/03/20	16:05	AD	451874
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/03/20	16:05	AD	451874
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/03/20	16:05	AD	451874
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	16:05	AD	451874
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/03/20	16:05	AD	451874
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	16:05	AD	451874
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**75.7**		%	11/03/20	16:05	AD	451874
(S) Toluene-d8	SW8260B		55.2 - 133		**95.5**		%	11/03/20	16:05	AD	451874
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**80.1**		%	11/03/20	16:05	AD	451874

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-3-10-W@5'	**Lab Sample ID:**	2011016-003A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 8:23		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/04/20	15:37	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/04/20	15:37	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**70.1**		%	11/04/20	15:37	SN	451919

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126746 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/03/20	16:33	AD	451874
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**85.3**		%	11/03/20	16:33	AD	451874

Prep Method: 5035 **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126745 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/03/20	16:33	AD	451874
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/03/20	16:33	AD	451874
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/03/20	16:33	AD	451874
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	16:33	AD	451874
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/03/20	16:33	AD	451874
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	16:33	AD	451874
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**73.8**		%	11/03/20	16:33	AD	451874
(S) Toluene-d8	SW8260B		55.2 - 133		**97.3**		%	11/03/20	16:33	AD	451874
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**82.2**		%	11/03/20	16:33	AD	451874

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-3-10-W@10'	**Lab Sample ID:**	2011016-004A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 8:25		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/04/20	16:00	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/04/20	16:00	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**86.7**		%	11/04/20	16:00	SN	451919

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126746 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/03/20	17:02	AD	451874
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**90.3**		%	11/03/20	17:02	AD	451874

Prep Method: 5035 **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126745 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/03/20	17:02	AD	451874
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/03/20	17:02	AD	451874
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/03/20	17:02	AD	451874
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	17:02	AD	451874
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/03/20	17:02	AD	451874
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	17:02	AD	451874
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**72.5**		%	11/03/20	17:02	AD	451874
(S) Toluene-d8	SW8260B		55.2 - 133		**96.4**		%	11/03/20	17:02	AD	451874
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**83.1**		%	11/03/20	17:02	AD	451874

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-3-10-E@5'	**Lab Sample ID:**	2011016-005A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 8:30		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/04/20	16:24	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/04/20	16:24	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**72.8**		%	11/04/20	16:24	SN	451919

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126746 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/03/20	17:30	AD	451874
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**87.1**		%	11/03/20	17:30	AD	451874

Prep Method: 5035 **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126745 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/03/20	17:30	AD	451874
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/03/20	17:30	AD	451874
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/03/20	17:30	AD	451874
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	17:30	AD	451874
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/03/20	17:30	AD	451874
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	17:30	AD	451874
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**71.0**		%	11/03/20	17:30	AD	451874
(S) Toluene-d8	SW8260B		55.2 - 133		**96.3**		%	11/03/20	17:30	AD	451874
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**83.1**		%	11/03/20	17:30	AD	451874

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-3-10-E@10'	**Lab Sample ID:**	2011016-006A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 8:31		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/04/20	16:47	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/04/20	16:47	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**73.4**		%	11/04/20	16:47	SN	451919

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126746 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/03/20	17:58	AD	451874
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**91.7**		%	11/03/20	17:58	AD	451874

Prep Method: 5035 **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126745 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/03/20	17:58	AD	451874
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/03/20	17:58	AD	451874
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/03/20	17:58	AD	451874
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	17:58	AD	451874
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/03/20	17:58	AD	451874
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	17:58	AD	451874
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**71.2**		%	11/03/20	17:58	AD	451874
(S) Toluene-d8	SW8260B		55.2 - 133		**94.2**		%	11/03/20	17:58	AD	451874
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**82.9**		%	11/03/20	17:58	AD	451874

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-3-10-N@5'	**Lab Sample ID:**	2011016-007A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 8:35		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**3.87**		mg/Kg	11/05/20	11:16	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/05/20	11:16	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**77.2**		%	11/05/20	11:16	SN	451919

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126746 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/03/20	18:26	AD	451874
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**84.2**		%	11/03/20	18:26	AD	451874

Prep Method: 5035 **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126745 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/03/20	18:26	AD	451874
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/03/20	18:26	AD	451874
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/03/20	18:26	AD	451874
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	18:26	AD	451874
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/03/20	18:26	AD	451874
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	18:26	AD	451874
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**67.6**		%	11/03/20	18:26	AD	451874
(S) Toluene-d8	SW8260B		55.2 - 133		**97.9**		%	11/03/20	18:26	AD	451874
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**81.5**		%	11/03/20	18:26	AD	451874

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-3-10-N@10'	**Lab Sample ID:**	2011016-008A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 8:37		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/04/20	17:34	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/04/20	17:34	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**92.8**		%	11/04/20	17:34	SN	451919

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126746 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/03/20	18:55	AD	451874
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**83.6**		%	11/03/20	18:55	AD	451874

Prep Method: 5035 **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126745 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/03/20	18:55	AD	451874
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/03/20	18:55	AD	451874
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/03/20	18:55	AD	451874
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	18:55	AD	451874
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/03/20	18:55	AD	451874
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	18:55	AD	451874
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**69.6**		%	11/03/20	18:55	AD	451874
(S) Toluene-d8	SW8260B		55.2 - 133		**96.5**		%	11/03/20	18:55	AD	451874
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**81.8**		%	11/03/20	18:55	AD	451874

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-3-10-C@5'	**Lab Sample ID:**	2011016-009A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 8:44		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/04/20	17:58	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/04/20	17:58	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**95.3**		%	11/04/20	17:58	SN	451919

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126746 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/03/20	19:23	AD	451874
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**79.6**		%	11/03/20	19:23	AD	451874

Prep Method: 5035 **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126745 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/03/20	19:23	AD	451874
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/03/20	19:23	AD	451874
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/03/20	19:23	AD	451874
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	19:23	AD	451874
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/03/20	19:23	AD	451874
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	19:23	AD	451874
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**68.0**		%	11/03/20	19:23	AD	451874
(S) Toluene-d8	SW8260B		55.2 - 133		**98.4**		%	11/03/20	19:23	AD	451874
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**81.9**		%	11/03/20	19:23	AD	451874

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-3-10-C@10'	**Lab Sample ID:**	2011016-010A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 8:46		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/04/20	18:23	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/04/20	18:23	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**93.5**		%	11/04/20	18:23	SN	451919

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126746 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/03/20	19:52	AD	451874
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**85.9**		%	11/03/20	19:52	AD	451874

Prep Method: 5035 **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126745 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/03/20	19:52	AD	451874
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/03/20	19:52	AD	451874
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/03/20	19:52	AD	451874
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	19:52	AD	451874
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/03/20	19:52	AD	451874
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	19:52	AD	451874
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**66.4**		%	11/03/20	19:52	AD	451874
(S) Toluene-d8	SW8260B		55.2 - 133		**97.6**		%	11/03/20	19:52	AD	451874
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**83.3**		%	11/03/20	19:52	AD	451874

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-39-C@5'	**Lab Sample ID:**	2011016-011A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 9:56		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/04/20	19:33	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/04/20	19:33	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**44.7**		%	11/04/20	19:33	SN	451919

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126746 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/03/20	20:21	AD	451874
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**77.4**		%	11/03/20	20:21	AD	451874

Prep Method: 5035 **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126745 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/03/20	20:21	AD	451874
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/03/20	20:21	AD	451874
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/03/20	20:21	AD	451874
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	20:21	AD	451874
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/03/20	20:21	AD	451874
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	20:21	AD	451874
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**65.5**		%	11/03/20	20:21	AD	451874
(S) Toluene-d8	SW8260B		55.2 - 133		**95.3**		%	11/03/20	20:21	AD	451874
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**79.2**		%	11/03/20	20:21	AD	451874

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-39-C@10'	**Lab Sample ID:**	2011016-012A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 9:58		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/04/20	19:56	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/04/20	19:56	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**94.6**		%	11/04/20	19:56	SN	451919

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126746 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/03/20	20:50	AD	451874
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**84.8**		%	11/03/20	20:50	AD	451874

Prep Method: 5035 **Prep Batch Date/Time:** 11/3/20 10:32:00AM
Prep Batch ID: 1126745 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/03/20	20:50	AD	451874
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/03/20	20:50	AD	451874
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/03/20	20:50	AD	451874
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	20:50	AD	451874
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/03/20	20:50	AD	451874
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/03/20	20:50	AD	451874
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**69.8**		%	11/03/20	20:50	AD	451874
(S) Toluene-d8	SW8260B		55.2 - 133		**95.6**		%	11/03/20	20:50	AD	451874
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**81.7**		%	11/03/20	20:50	AD	451874

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-39-W@5'	**Lab Sample ID:**	2011016-013A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 10:06		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/04/20	20:19	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/04/20	20:19	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**81.4**		%	11/04/20	20:19	SN	451919

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/4/20 10:37:00AM
Prep Batch ID: 1126768 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/04/20	15:00	AD	451900
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**52.1**		%	11/04/20	15:00	AD	451900

Prep Method: 5035 **Prep Batch Date/Time:** 11/4/20 10:37:00AM
Prep Batch ID: 1126767 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/04/20	15:00	AD	451900
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/04/20	15:00	AD	451900
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/04/20	15:00	AD	451900
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/04/20	15:00	AD	451900
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/04/20	15:00	AD	451900
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/04/20	15:00	AD	451900
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**136**		%	11/04/20	15:00	AD	451900
(S) Toluene-d8	SW8260B		55.2 - 133		**120**		%	11/04/20	15:00	AD	451900
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**114**		%	11/04/20	15:00	AD	451900

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-39-W@10'	**Lab Sample ID:**	2011016-014A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 10:09		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/04/20	20:43	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/04/20	20:43	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**164**	S	%	11/04/20	20:43	SN	451919

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/4/20 10:37:00AM
Prep Batch ID: 1126768 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/04/20	16:27	AD	451900
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**50.0**		%	11/04/20	16:27	AD	451900

Prep Method: 5035 **Prep Batch Date/Time:** 11/4/20 10:37:00AM
Prep Batch ID: 1126767 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/04/20	16:27	AD	451900
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/04/20	16:27	AD	451900
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/04/20	16:27	AD	451900
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/04/20	16:27	AD	451900
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/04/20	16:27	AD	451900
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/04/20	16:27	AD	451900
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**141**		%	11/04/20	16:27	AD	451900
(S) Toluene-d8	SW8260B		55.2 - 133		**116**		%	11/04/20	16:27	AD	451900
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**111**		%	11/04/20	16:27	AD	451900

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-39-S@5'	**Lab Sample ID:**	2011016-015A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 10:14		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/04/20	21:06	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/04/20	21:06	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**79.5**		%	11/04/20	21:06	SN	451919

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/4/20 10:37:00AM
Prep Batch ID: 1126768 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/04/20	16:56	AD	451900
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**45.9**		%	11/04/20	16:56	AD	451900

Prep Method: 5035 **Prep Batch Date/Time:** 11/4/20 10:37:00AM
Prep Batch ID: 1126767 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/04/20	16:56	AD	451900
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/04/20	16:56	AD	451900
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/04/20	16:56	AD	451900
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/04/20	16:56	AD	451900
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/04/20	16:56	AD	451900
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/04/20	16:56	AD	451900
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**145**		%	11/04/20	16:56	AD	451900
(S) Toluene-d8	SW8260B		55.2 - 133		**118**		%	11/04/20	16:56	AD	451900
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**112**		%	11/04/20	16:56	AD	451900

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-39-S@10'	**Lab Sample ID:**	2011016-016A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 10:16		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/04/20	21:29	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/04/20	21:29	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**85.2**		%	11/04/20	21:29	SN	451919

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/4/20 10:37:00AM
Prep Batch ID: 1126768 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/04/20	17:25	AD	451900
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**56.3**		%	11/04/20	17:25	AD	451900

Prep Method: 5035 **Prep Batch Date/Time:** 11/4/20 10:37:00AM
Prep Batch ID: 1126767 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/04/20	17:25	AD	451900
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/04/20	17:25	AD	451900
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/04/20	17:25	AD	451900
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/04/20	17:25	AD	451900
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/04/20	17:25	AD	451900
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/04/20	17:25	AD	451900
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**146**		%	11/04/20	17:25	AD	451900
(S) Toluene-d8	SW8260B		55.2 - 133		**118**		%	11/04/20	17:25	AD	451900
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**111**		%	11/04/20	17:25	AD	451900

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-39-N@5'	**Lab Sample ID:**	2011016-017A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 10:23		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/04/20	21:53	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/04/20	21:53	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**108**		%	11/04/20	21:53	SN	451919

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/4/20 10:37:00AM
Prep Batch ID: 1126768 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/04/20	17:55	AD	451900
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**51.6**		%	11/04/20	17:55	AD	451900

Prep Method: 5035 **Prep Batch Date/Time:** 11/4/20 10:37:00AM
Prep Batch ID: 1126767 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/04/20	17:55	AD	451900
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/04/20	17:55	AD	451900
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/04/20	17:55	AD	451900
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/04/20	17:55	AD	451900
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/04/20	17:55	AD	451900
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/04/20	17:55	AD	451900
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**145**		%	11/04/20	17:55	AD	451900
(S) Toluene-d8	SW8260B		55.2 - 133		**121**		%	11/04/20	17:55	AD	451900
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**117**		%	11/04/20	17:55	AD	451900

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-39-N-@10'	**Lab Sample ID:**	2011016-018A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 10:25		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/04/20	22:16	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/04/20	22:16	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**79.0**		%	11/04/20	22:16	SN	451919

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/4/20 10:37:00AM
Prep Batch ID: 1126768 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/04/20	18:24	AD	451900
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**55.7**		%	11/04/20	18:24	AD	451900

Prep Method: 5035 **Prep Batch Date/Time:** 11/4/20 10:37:00AM
Prep Batch ID: 1126767 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/04/20	18:24	AD	451900
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/04/20	18:24	AD	451900
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/04/20	18:24	AD	451900
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/04/20	18:24	AD	451900
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/04/20	18:24	AD	451900
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/04/20	18:24	AD	451900
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**141**		%	11/04/20	18:24	AD	451900
(S) Toluene-d8	SW8260B		55.2 - 133		**116**		%	11/04/20	18:24	AD	451900
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**108**		%	11/04/20	18:24	AD	451900

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-39-E@5'	**Lab Sample ID:**	2011016-019A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 10:27		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/04/20	22:40	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/04/20	22:40	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**54.3**		%	11/04/20	22:40	SN	451919

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/4/20 10:37:00AM
Prep Batch ID: 1126768 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/04/20	18:53	AD	451900
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**53.6**		%	11/04/20	18:53	AD	451900

Prep Method: 5035 **Prep Batch Date/Time:** 11/4/20 10:37:00AM
Prep Batch ID: 1126767 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/04/20	18:53	AD	451900
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/04/20	18:53	AD	451900
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/04/20	18:53	AD	451900
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/04/20	18:53	AD	451900
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/04/20	18:53	AD	451900
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/04/20	18:53	AD	451900
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**143**		%	11/04/20	18:53	AD	451900
(S) Toluene-d8	SW8260B		55.2 - 133		**117**		%	11/04/20	18:53	AD	451900
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**116**		%	11/04/20	18:53	AD	451900

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/09/20

Client Sample ID:	S-39-E@10'	**Lab Sample ID:**	2011016-020A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 10:29		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/3/20 5:00:00PM
Prep Batch ID: 1126754 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**8.62**	x	mg/Kg	11/05/20	11:39	SN	451919
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**15.4**		mg/Kg	11/05/20	11:39	SN	451919
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**85.5**		%	11/05/20	11:39	SN	451919

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/4/20 10:37:00AM
Prep Batch ID: 1126768 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/04/20	19:23	AD	451900
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**44.9**		%	11/04/20	19:23	AD	451900

Prep Method: 5035 **Prep Batch Date/Time:** 11/5/20 1:38:00PM
Prep Batch ID: 1126817 **Prep Analyst:** JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	18:52	JZ	451935
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	18:52	JZ	451935
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	18:52	JZ	451935
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	18:52	JZ	451935
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	18:52	JZ	451935
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	18:52	JZ	451935
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**139**		%	11/05/20	18:52	JZ	451935
(S) Toluene-d8	SW8260B		55.2 - 133		**117**		%	11/05/20	18:52	JZ	451935
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**111**		%	11/05/20	18:52	JZ	451935

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011016	**Prep Method:**	5035	**Prep Date:**	11/03/20	**Prep Batch:**	1126745
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/3/2020	**Analytical Batch:**	451874
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	1.2	10	ND	
Chloromethane	1.8	10	ND	
Vinyl Chloride	2.0	10	ND	
Bromomethane	2.7	10	ND	
Chloroethane	3.0	10	ND	
Trichlorofluoromethane	2.1	10	ND	
1,1-Dichloroethene	2.0	10	ND	
Freon 113	1.9	10	ND	
Methylene Chloride	7.1	10	ND	
trans-1,2-Dichloroethene	2.1	10	ND	
MTBE	2.3	10	ND	
TBA	12	50	ND	
Diisopropyl ether	2.3	10	ND	
1,1-Dichloroethane	2.2	10	ND	
Ethyl tert-Butyl ether	2.3	10	ND	
cis-1,2-Dichloroethene	2.2	10	ND	
2,2-Dichloropropane	1.9	10	ND	
Bromochloromethane	2.3	10	ND	
Chloroform	2.4	10	ND	
Carbon Tetrachloride	2.1	10	ND	
1,1,1-Trichloroethane	2.1	10	ND	
1,1-Dichloropropene	2.0	10	ND	
Benzene	2.2	10	ND	
TAME	2.3	10	ND	
1,2-Dichloroethane	2.3	10	ND	
Trichloroethylene	1.8	10	ND	
Dibromomethane	1.8	10	ND	
1,2-Dichloropropane	1.9	10	ND	
Bromodichloromethane	2.0	10	ND	
cis-1,3-Dichloropropene	1.6	10	ND	
Toluene	1.8	10	ND	
Tetrachloroethylene	1.7	10	ND	
trans-1,3-Dichloropropene	1.6	10	ND	
1,1,2-Trichloroethane	1.8	10	ND	
Dibromochloromethane	1.9	10	ND	
1,3-Dichloropropane	1.8	10	ND	
1,2-Dibromoethane	1.8	10	ND	
Chlorobenzene	1.8	10	ND	
Ethylbenzene	1.7	10	ND	
1,1,1,2-Tetrachloroethane	1.9	10	ND	
m,p-Xylene	3.2	10	ND	
o-Xylene	1.7	10	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011016	**Prep Method:**	5035	**Prep Date:**	11/03/20	**Prep Batch:**	1126745
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/3/2020	**Analytical Batch:**	451874
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Styrene	1.6	10	ND	
Bromoform	1.7	10	ND	
Isopropyl Benzene	1.6	10	ND	
n-Propylbenzene	1.6	10	ND	
Bromobenzene	1.8	10	ND	
1,1,2,2-Tetrachloroethane	1.9	10	ND	
2-Chlorotoluene	1.8	10	ND	
1,3,5-Trimethylbenzene	1.6	10	ND	
1,2,3-Trichloropropane	1.9	10	ND	
4-Chlorotoluene	1.6	10	ND	
tert-Butylbenzene	1.6	10	ND	
1,2,4-Trimethylbenzene	1.4	10	ND	
sec-Butyl Benzene	1.6	10	ND	
p-Isopropyltoluene	1.5	10	ND	
1,3-Dichlorobenzene	1.7	10	ND	
1,4-Dichlorobenzene	1.7	10	ND	
n-Butylbenzene	1.5	10	ND	
1,2-Dichlorobenzene	1.8	10	ND	
1,2-Dibromo-3-Chloropropane	1.8	10	ND	
Hexachlorobutadiene	1.4	10	2.1	
1,2,4-Trichlorobenzene	1.5	10	1.9	
Naphthalene	1.7	10	2.3	
1,2,3-Trichlorobenzene	1.7	10	2.1	
2-Butanone	2.3	10	ND	
4-Methyl-2-Pentanone (MIBK)	2.0	50	ND	
Hexachloroethane	5.0	10	ND	
1,4-Dioxane	100	200	ND	
2-Hexanone	5.0	20	ND	
Acetone	8.2	20	ND	
(S) Dibromofluoromethane			88.8	
(S) Toluene-d8			94.0	
(S) 4-Bromofluorobenzene			81.5	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011016	**Prep Method:**	5035GRO	**Prep Date:**	11/03/20	**Prep Batch:**	1126746
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/3/2020	**Analytical Batch:**	451874
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Gasoline	43	100	ND	
(S) 4-Bromofluorobenzene			102	

Work Order:	2011016	**Prep Method:**	3546_TPHSG	**Prep Date:**	11/03/20	**Prep Batch:**	1126754
Matrix:	Soil	**Analytical Method:**	SW8015B	**Analyzed Date:**	11/4/2020	**Analytical Batch:**	451919
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Diesel (SG)	0.85	2.0	ND	
TPH as Motor Oil (SG)	3.2	10	ND	
Pentacosane (S)			85.2	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011016	**Prep Method:**	5035	**Prep Date:**	11/04/20	**Prep Batch:**	1126767
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/4/2020	**Analytical Batch:**	451900
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	1.2	10	ND	
Chloromethane	1.8	10	ND	
Vinyl Chloride	2.0	10	ND	
Bromomethane	2.7	10	ND	
Chloroethane	3.0	10	ND	
Trichlorofluoromethane	2.1	10	ND	
1,1-Dichloroethene	2.0	10	ND	
Freon 113	1.9	10	ND	
Methylene Chloride	7.1	10	ND	
trans-1,2-Dichloroethene	2.1	10	ND	
MTBE	2.3	10	ND	
TBA	12	50	ND	
Diisopropyl ether	2.3	10	ND	
1,1-Dichloroethane	2.2	10	ND	
Ethyl tert-Butyl ether	2.3	10	ND	
cis-1,2-Dichloroethene	2.2	10	ND	
2,2-Dichloropropane	1.9	10	ND	
Bromochloromethane	2.3	10	ND	
Chloroform	2.4	10	ND	
Carbon Tetrachloride	2.1	10	ND	
1,1,1-Trichloroethane	2.1	10	ND	
1,1-Dichloropropene	2.0	10	ND	
Benzene	2.2	10	ND	
TAME	2.3	10	ND	
1,2-Dichloroethane	2.3	10	ND	
Trichloroethylene	1.8	10	ND	
Dibromomethane	1.8	10	ND	
1,2-Dichloropropane	1.9	10	ND	
Bromodichloromethane	2.0	10	ND	
cis-1,3-Dichloropropene	1.6	10	ND	
Toluene	1.8	10	ND	
Tetrachloroethylene	1.7	10	ND	
trans-1,3-Dichloropropene	1.6	10	ND	
1,1,2-Trichloroethane	1.8	10	ND	
Dibromochloromethane	1.9	10	ND	
1,3-Dichloropropane	1.8	10	ND	
1,2-Dibromoethane	1.8	10	ND	
Chlorobenzene	1.8	10	ND	
Ethylbenzene	1.7	10	ND	
1,1,1,2-Tetrachloroethane	1.9	10	ND	
m,p-Xylene	3.2	10	ND	
o-Xylene	1.7	10	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011016	**Prep Method:**	5035	**Prep Date:**	11/04/20	**Prep Batch:**	1126767
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/4/2020	**Analytical Batch:**	451900
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Styrene	1.6	10	ND	
Bromoform	1.7	10	ND	
Isopropyl Benzene	1.6	10	ND	
n-Propylbenzene	1.6	10	ND	
Bromobenzene	1.8	10	ND	
1,1,2,2-Tetrachloroethane	1.9	10	ND	
2-Chlorotoluene	1.8	10	ND	
1,3,5-Trimethylbenzene	1.6	10	ND	
1,2,3-Trichloropropane	1.9	10	ND	
4-Chlorotoluene	1.6	10	ND	
tert-Butylbenzene	1.6	10	ND	
1,2,4-Trimethylbenzene	1.4	10	ND	
sec-Butyl Benzene	1.6	10	ND	
p-Isopropyltoluene	1.5	10	ND	
1,3-Dichlorobenzene	1.7	10	ND	
1,4-Dichlorobenzene	1.7	10	ND	
n-Butylbenzene	1.5	10	ND	
1,2-Dichlorobenzene	1.8	10	ND	
1,2-Dibromo-3-Chloropropane	1.8	10	ND	
Hexachlorobutadiene	1.4	10	ND	
1,2,4-Trichlorobenzene	1.5	10	ND	
Naphthalene	1.7	10	ND	
1,2,3-Trichlorobenzene	1.7	10	ND	
2-Butanone	2.3	10	ND	
4-Methyl-2-Pentanone (MIBK)	2.0	50	ND	
Hexachloroethane	5.0	10	ND	
1,4-Dioxane	100	200	ND	
2-Hexanone	5.0	20	ND	
Acetone	8.2	20	12	
(S) Dibromofluoromethane			140	
(S) Toluene-d8			114	
(S) 4-Bromofluorobenzene			108	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011016	**Prep Method:**	5035GRO	**Prep Date:**	11/04/20	**Prep Batch:**	1126768
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/4/2020	**Analytical Batch:**	451900
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
TPH as Gasoline	43	100	ND		
(S) 4-Bromofluorobenzene			64.7		

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011016	**Prep Method:**	5035	**Prep Date:**	11/05/20	**Prep Batch:**	1126817
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451935
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	1.2	10	ND	
Chloromethane	1.8	10	ND	
Vinyl Chloride	2.0	10	ND	
Bromomethane	2.7	10	ND	
Chloroethane	3.0	10	ND	
Trichlorofluoromethane	2.1	10	ND	
1,1-Dichloroethene	2.0	10	ND	
Freon 113	1.9	10	ND	
Methylene Chloride	7.1	10	ND	
trans-1,2-Dichloroethene	2.1	10	ND	
MTBE	2.3	10	ND	
TBA	12	50	ND	
Diisopropyl ether	2.3	10	ND	
1,1-Dichloroethane	2.2	10	ND	
Ethyl tert-Butyl ether	2.3	10	ND	
cis-1,2-Dichloroethene	2.2	10	ND	
2,2-Dichloropropane	1.9	10	ND	
Bromochloromethane	2.3	10	ND	
Chloroform	2.4	10	ND	
Carbon Tetrachloride	2.1	10	ND	
1,1,1-Trichloroethane	2.1	10	ND	
1,1-Dichloropropene	2.0	10	ND	
Benzene	2.2	10	ND	
TAME	2.3	10	ND	
1,2-Dichloroethane	2.3	10	ND	
Trichloroethylene	1.8	10	ND	
Dibromomethane	1.8	10	ND	
1,2-Dichloropropane	1.9	10	ND	
Bromodichloromethane	2.0	10	ND	
cis-1,3-Dichloropropene	1.6	10	ND	
Toluene	1.8	10	ND	
Tetrachloroethylene	1.7	10	ND	
trans-1,3-Dichloropropene	1.6	10	ND	
1,1,2-Trichloroethane	1.8	10	ND	
Dibromochloromethane	1.9	10	ND	
1,3-Dichloropropane	1.8	10	ND	
1,2-Dibromoethane	1.8	10	ND	
Chlorobenzene	1.8	10	ND	
Ethylbenzene	1.7	10	ND	
1,1,1,2-Tetrachloroethane	1.9	10	ND	
m,p-Xylene	3.2	10	ND	
o-Xylene	1.7	10	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011016	**Prep Method:**	5035	**Prep Date:**	11/05/20	**Prep Batch:**	1126817
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451935
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Styrene	1.6	10	ND	
Bromoform	1.7	10	ND	
Isopropyl Benzene	1.6	10	ND	
n-Propylbenzene	1.6	10	ND	
Bromobenzene	1.8	10	ND	
1,1,2,2-Tetrachloroethane	1.9	10	ND	
2-Chlorotoluene	1.8	10	ND	
1,3,5-Trimethylbenzene	1.6	10	ND	
1,2,3-Trichloropropane	1.9	10	ND	
4-Chlorotoluene	1.6	10	ND	
tert-Butylbenzene	1.6	10	ND	
1,2,4-Trimethylbenzene	1.4	10	ND	
sec-Butyl Benzene	1.6	10	ND	
p-Isopropyltoluene	1.5	10	ND	
1,3-Dichlorobenzene	1.7	10	ND	
1,4-Dichlorobenzene	1.7	10	ND	
n-Butylbenzene	1.5	10	ND	
1,2-Dichlorobenzene	1.8	10	ND	
1,2-Dibromo-3-Chloropropane	1.8	10	ND	
Hexachlorobutadiene	1.4	10	ND	
1,2,4-Trichlorobenzene	1.5	10	7.7	
Naphthalene	1.7	10	5.9	
1,2,3-Trichlorobenzene	1.7	10	2.0	
2-Butanone	2.3	10	ND	
(S) Dibromofluoromethane			127	
(S) Toluene-d8			115	
(S) 4-Bromofluorobenzene			110	

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011016	**Prep Method:**	5035	**Prep Date:**	11/03/20	**Prep Batch:**	1126745
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/3/2020	**Analytical Batch:**	451874
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	2.0	10	ND	50.0	99.1	113	13.2	53.7 - 139	30	
Benzene	2.2	10	ND	50.0	103	115	11.0	66.5 - 135	30	
Trichloroethylene	1.8	10	ND	50.0	97.4	108	9.95	57.5 - 150	30	
Toluene	1.8	10	ND	50.0	97.1	109	11.4	56.8 - 134	30	
Chlorobenzene	1.8	10	ND	50.0	95.2	106	10.4	57.4 - 134	30	
(S) Dibromofluoromethane				50.0	90.5	108		59.8 - 148		
(S) Toluene-d8				50.0	102	108		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	84.6	95.4		55.8 - 141		

Work Order:	2011016	**Prep Method:**	5035	**Prep Date:**	11/03/20	**Prep Batch:**	1126745
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/3/2020	**Analytical Batch:**	451874
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
MTBE	2.34	10.0		50.0	96.0	116	18.7	70 - 130	30	
Benzene	2.2	10		50.0	103	115	11.0	66.5 - 135	30	
Ethylbenzene	1.65	10.0		50.0	96.7	106	9.47	70 - 130	30	
Toluene	1.82	10		50.0	97.1	109	11.4	56.8 - 134	30	
m,p-Xylene	3.16	10.0		100	90.8	101	10.6	70 - 130	30	
o-Xylene	1.73	10.0		50.0	90.7	102	11.2	70 - 130	30	
(S) Dibromofluoromethane				50.0	90.5	108		59.8 - 148		
(S) Toluene-d8				50.0	102	108		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	84.6	95.4		55.8 - 141		

Work Order:	2011016	**Prep Method:**	5035GRO	**Prep Date:**	11/03/20	**Prep Batch:**	1126746
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/3/2020	**Analytical Batch:**	451874
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	43	100	ND	1000	115	105	9.09	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	113	96.6		43.9 - 127		

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011016	**Prep Method:**	3546_TPHSG	**Prep Date:**	11/03/20	**Prep Batch:**	1126754
Matrix:	Soil	**Analytical Method:**	SW8015B	**Analyzed Date:**	11/4/2020	**Analytical Batch:**	451919
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	0.85	2.0	ND	25.0	68.4	73.1	6.78	40 - 110	30	
Pentacosane (S)			ND	200	88.8	102		40 - 129		

Work Order:	2011016	**Prep Method:**	5035	**Prep Date:**	11/04/20	**Prep Batch:**	1126767
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/4/2020	**Analytical Batch:**	451900
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	2.0	10	ND	50.0	83.6	96.3	14.2	53.7 - 139	30	
Benzene	2.2	10	ND	50.0	90.0	102	12.9	66.5 - 135	30	
Trichloroethylene	1.8	10	ND	50.0	91.5	102	11.1	57.5 - 150	30	
Toluene	1.8	10	ND	50.0	97.2	110	12.5	56.8 - 134	30	
Chlorobenzene	1.8	10	ND	50.0	92.0	105	13.4	57.4 - 134	30	
(S) Dibromofluoromethane				50.0	90.1	107		59.8 - 148		
(S) Toluene-d8				50.0	93.6	108		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	90.5	102		55.8 - 141		

Work Order:	2011016	**Prep Method:**	5035	**Prep Date:**	11/04/20	**Prep Batch:**	1126767
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/4/2020	**Analytical Batch:**	451900
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
MTBE	2.34	10.0		50.0	82.9	99.0	17.6	70 - 130	30	
Benzene	2.2	10		50.0	90.0	102	12.9	66.5 - 135	30	
Ethylbenzene	1.65	10.0		50.0	93.2	109	15.6	70 - 130	30	
Toluene	1.82	10		50.0	97.2	110	12.5	56.8 - 134	30	
m,p-Xylene	3.16	10.0		100	99.1	114	14.0	70 - 130	30	
o-Xylene	1.73	10.0		50.0	84.4	96.7	13.7	70 - 130	30	
(S) Dibromofluoromethane				50.0	90.1	107		59.8 - 148		
(S) Toluene-d8				50.0	93.6	108		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	90.5	102		55.8 - 141		

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011016	**Prep Method:**	5035GRO	**Prep Date:**	11/04/20	**Prep Batch:**	1126768
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/4/2020	**Analytical Batch:**	451900
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	43	100	ND	1000	92.0	82.0	11.5	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	87.1	74.0		43.9 - 127		

Work Order:	2011016	**Prep Method:**	5035	**Prep Date:**	11/05/20	**Prep Batch:**	1126817
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451935
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	2.0	10	ND	50.0	83.4	101	18.7	53.7 - 139	30	
Benzene	2.2	10	ND	50.0	88.2	109	20.7	66.5 - 135	30	
Trichloroethylene	1.8	10	ND	50.0	89.9	111	21.3	57.5 - 150	30	
Toluene	1.8	10	ND	50.0	91.6	113	20.7	56.8 - 134	30	
Chlorobenzene	1.8	10	ND	50.0	89.1	108	19.3	57.4 - 134	30	
(S) Dibromofluoromethane				50.0	106	117		59.8 - 148		
(S) Toluene-d8				50.0	102	117		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	99.2	113		55.8 - 141		

Work Order:	2011016	**Prep Method:**	5035	**Prep Date:**	11/05/20	**Prep Batch:**	1126817
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451935
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
MTBE	2.34	10.0		50.0	90.2	116	24.7	70 - 130	30	
Benzene	2.2	10		50.0	88.2	109	20.7	66.5 - 135	30	
Ethylbenzene	1.65	10.0		50.0	90.5	111	20.1	70 - 130	30	
Toluene	1.82	10		50.0	91.6	113	20.7	56.8 - 134	30	
m,p-Xylene	3.16	10.0		100	95.1	116	19.8	70 - 130	30	
o-Xylene	1.73	10.0		50.0	85.3	103	18.5	70 - 130	30	
(S) Dibromofluoromethane				50.0	106	117		59.8 - 148		
(S) Toluene-d8				50.0	102	117		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	99.2	113		55.8 - 141		

Torrent LABORATORY, INC.

MS/MSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011016	**Prep Method:**	5035	**Prep Date:**	11/03/20	**Prep Batch:**	1126745
Matrix:	**Soil**	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/3/2020	**Analytical Batch:**	451874
Spiked Sample:	2011016-001A						
Units:	ug/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Benzene	2.23	10.0	ND	50	98.8	96.4	2.46	55 - 125	30	
Toluene	1.82	10.0	ND	50	89.8	87.6	2.48	55 - 125	30	
Ethylbenzene	1.65	10.0	ND	50	86.5	84.7	2.10	70 - 130	30	
m,p-Xylene	3.16	10.0	ND	100	80.9	81.1	0.247	70 - 130	30	
o-Xylene	1.73	10.0	ND	50	82.7	81.3	1.46	70 - 130	30	
MTBE	2.34	10.0	ND	50	106	103	2.68	70 - 130	30	
(S) Dibromofluoromethane				50	76.0	81.3		59.8 - 148		
(S) Toluene-d8				50	105	97.8		55.2 - 133		
(S) 4-Bromofluorobenzene				50	84.9	80.1		55.8 - 141		

Work Order:	2011016	**Prep Method:**	3546_TPHSG	**Prep Date:**	11/03/20	**Prep Batch:**	1126754
Matrix:	**Soil**	**Analytical Method:**	SW8015B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451919
Spiked Sample:	2011016-020A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	0.850	2.00	8.62	25.0	40.7	51.4	13.4	40 - 110	30	
Pentacosane (S)				200	77.8	91.4		40 - 129		

Work Order:	2011016	**Prep Method:**	5035	**Prep Date:**	11/04/20	**Prep Batch:**	1126767
Matrix:	**Soil**	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/4/2020	**Analytical Batch:**	451900
Spiked Sample:	2011016-015A						
Units:	ug/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Benzene	2.23	10.0	ND	50	106	87.9	18.6	55 - 125	30	
Toluene	1.82	10.0	ND	50	109	93.0	16.0	55 - 125	30	
Ethylbenzene	1.65	10.0	ND	50	104	89.6	15.3	70 - 130	30	
m,p-Xylene	3.16	10.0	ND	100	112	94.8	16.6	70 - 130	30	
o-Xylene	1.73	10.0	ND	50	94.9	81.7	14.9	70 - 130	30	
MTBE	2.34	10.0	ND	50	108	90.6	17.5	70 - 130	30	
(S) Dibromofluoromethane				50	112	94.8		59.8 - 148		
(S) Toluene-d8				50	108	90.1		55.2 - 133		
(S) 4-Bromofluorobenzene				50	104	85.9		55.8 - 141		

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg/m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the analyte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: Engeo (San Ramon)

Project Name: Brindle Gate

Work Order No.: 2011016

Date and Time Received: 11/3/2020 10:30:00AM

Received By: Lorna Imbat

Physically Logged By: Lorna Imbat

Checklist Completed By: Lorna Imbat

Carrier Name: First Courier

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes			
Container/Temp Blank temperature in compliance?	Yes	Temperature:	2.0	°C
Water-VOA vials have zero headspace?	No VOA vials submitted			
Water-pH acceptable upon receipt?	N/A			

pH Checked by: n/a

pH Adjusted by: n/a

Comments:

Torrent LABORATORY, INC.

Login Summary Report

Client ID: TL5123 Engeo (San Ramon)
Project Name: Brindle Gate
Project # : 3359.210.001
Report Due Date: 11/6/2020
Comments:
Work Order # : ***2011016***

QC Level: II
TAT Requested: 3 Day Std:3
Date Received: 11/3/2020
Time Received: 10:30 am

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2011016-001A	S-3-10-S@5'	11/02/20 8:12	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011016-002A	S-3-10-S@10'	11/02/20 8:18	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011016-003A	S-3-10-W@5'	11/02/20 8:23	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011016-004A	S-3-10-W@10'	11/02/20 8:25	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011016-005A	S-3-10-E@5'	11/02/20 8:30	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011016-006A	S-3-10-E@10'	11/02/20 8:31	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011016-007A	S-3-10-N@5'	11/02/20 8:35	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011016-008A	S-3-10-N@10'	11/02/20 8:37	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011016-009A	S-3-10-C@5'	11/02/20 8:44	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011016-010A	S-3-10-C@10'	11/02/20 8:46	Soil	05/01/21			TPHDOSG_S_8015B	

Torrent LABORATORY, INC.

Login Summary Report

Client ID: TL5123 Engeo (San Ramon)
Project Name: Brindle Gate
Project # : 3359.210.001
Report Due Date: 11/6/2020
QC Level: II
TAT Requested: 3 Day Std:3
Date Received: 11/3/2020
Time Received: 10:30 am

Comments:

Work Order # : ***2011016***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2011016-011A	S-39-C@5'	11/02/20 9:56	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011016-012A	S-39-C@10'	11/02/20 9:58	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011016-013A	S-39-W@5'	11/02/20 10:06	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011016-014A	S-39-W@10'	11/02/20 10:09	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011016-015A	S-39-S@5'	11/02/20 10:14	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011016-016A	S-39-S@10'	11/02/20 10:16	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011016-017A	S-39-N@5'	11/02/20 10:23	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011016-018A	S-39-N-@10'	11/02/20 10:25	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011016-019A	S-39-E@5'	11/02/20 10:27	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	

Login Summary Report

Client ID:	TL5123	Engeo (San Ramon)	**QC Level:**	II
Project Name:	Brindle Gate		**TAT Requested:**	3 Day Std:3
Project # :	3359.210.001		**Date Received:**	11/3/2020
Report Due Date:	11/6/2020		**Time Received:**	10:30 am

Comments:

Work Order # : ***2011016***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2011016-020A	S-39-E@10'	11/02/20 10:29	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_MBTEX	

Torrent LABORATORY, INC.

CHAIN OF CUSTODY RECORD

2011016

8015

PROJECT NUMBER	PROJECT NAME
3359.210.001	Brindle Gate

SAMPLED BY: (SIGNATURE/PRINT) Taunee Werts

PROJECT MANAGER: (SIGNATURE/PRINT) Brooke Spruit

ROUTING: E-MAIL BSpruit, twerts, & smunger@engeo.com

SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	TPH-g	BTEX 8260	MTBE	TPH-d/mo WISG cleanup										REMARKS / REQUIRED DETECTION LIMITS
S-3-10-S@5'	11/2/20	08:12	soil	1	sleeve	N/A	X	X	X	X									-001A	
S-3-10-S@10'		08:18					X	X	X	X									-002A	
S-3-10-W@5'		08:23					X	X	X	X									-003A	
@10'		08:25					X	X	X	X									-004A	
S-3-10-E@5'		08:30					X	X	X	X									-005A	
@10'		08:31					X	X	X	X									-006A	
S-3-10-N@5'		08:35					X	X	X	X									-007A	
@10'		08:37					X	X	X	X									-008A	
S-3-10-C@5'		08:44					X	X	X	X									-009A	
@10'		08:46					X	X	X	X									-010A	
S-39-C@5'		09:56					X	X	X	X									-011A	
@10'		09:58					X	X	X	X									-012A	
S-39-W@5'		10:06					X	X	X	X									-013A	
@10'		10:09					X	X	X	X									-014A	
S-39-S@5'		10:14					X	X	X	X									-015A	
@10'		10:16					X	X	X	X									-016A	
S-39-N@5'		10:23					X	X	X	X									-017A	
@10'		10:25					X	X	X	X									-018A	
S-39-E@5'		10:27					X	X	X	X									-019A	
@10'		10:29					X	X	X	X									-020A	

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
	11/3/20 07:00				
RAM	11/3/20 9:12		RAM	11/3/20 10:29	i.D Imbat
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE/TIME	REMARKS	
				standard TAT	

pg 1 of 2

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FC temp 2 #1

ENGEO INCORPORATED

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WWW.ENGEO.COM

Engeo (San Ramon)
2010 Crow Canyon Place,#250
San Ramon, California 94583
Tel: (925) 866-9000
Fax: (925) 866-0199

RE: Brindle Gate

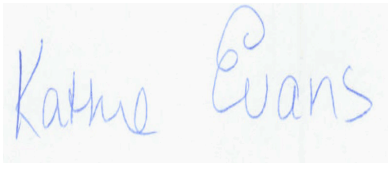
Work Order No.: 2011017

Dear Brooke Spruit:

Torrent Laboratory, Inc. received 16 sample(s) on November 03, 2020 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.



Kathie Evans
Project Manager

November 06, 2020
Date

Date: 11/6/2020

Client: Engeo (San Ramon)

Project: Brindle Gate

Work Order: 2011017

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date Received: 11/03/20
Date Reported: 11/06/20

S-31-10-W@5' 2011017-001

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	10	17	40	454	mg/Kg
TPH as Motor Oil (SG)	SW8015B	10	64	200	961	mg/Kg

S-31-10-W@10' 2011017-002

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	10	17	40	372	mg/Kg
TPH as Motor Oil (SG)	SW8015B	10	64	200	610	mg/Kg

S-31-10-S@5' 2011017-003

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	4	6.8	16	173	mg/Kg
TPH as Motor Oil (SG)	SW8015B	4	25	80	415	mg/Kg

S-31-10-S@10' 2011017-004

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	5	8.5	20	270	mg/Kg
TPH as Motor Oil (SG)	SW8015B	5	32	100	424	mg/Kg

S-31-10-E@5' 2011017-005

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	2	3.4	8.0	70.7	mg/Kg
TPH as Motor Oil (SG)	SW8015B	2	13	40	199	mg/Kg

S-31-10-E@10' 2011017-006

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	20	34	80	372	mg/Kg
TPH as Motor Oil (SG)	SW8015B	20	130	400	609	mg/Kg

S-31-10-C@5' 2011017-007

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	3	2.6	6.0	69.9	mg/Kg
TPH as Motor Oil (SG)	SW8015B	3	9.5	30	160	mg/Kg

S-31-10-C@10' 2011017-008

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	5	4.3	10	126	mg/Kg
TPH as Motor Oil (SG)	SW8015B	5	16	50	202	mg/Kg

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date Received: 11/03/20
Date Reported: 11/06/20

S-31-10-N@5' 2011017-009

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	3	5.1	12	124	mg/Kg
TPH as Motor Oil (SG)	SW8015B	3	19	60	312	mg/Kg

S-31-10-N@10' 2011017-010

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	20	17	40	195	mg/Kg
TPH as Motor Oil (SG)	SW8015B	20	64	200	343	mg/Kg

S-TF-6@5' 2011017-011

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	2	1.7	4.0	54.2	mg/Kg
TPH as Motor Oil (SG)	SW8015B	2	6.4	20	192	mg/Kg

S-TF-6@10' 2011017-012

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	3	2.6	6.0	36.2	mg/Kg
TPH as Motor Oil (SG)	SW8015B	3	9.5	30	131	mg/Kg

S-TF-3@5' 2011017-013

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	8.00	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	14.9	mg/Kg

S-TF-3@10' 2011017-014

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	6.97	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	11.8	mg/Kg

S-TF-2@5' 2011017-015

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	8.37	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	14.1	mg/Kg

S-TF-2@10' 2011017-016

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	12.9	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	24.2	mg/Kg

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-W@5'	**Lab Sample ID:**	2011017-001A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 11:00		
SDG:			

Prep Method:	3546_TPHSG	**Prep Batch Date/Time:**	11/4/20 2:18:00PM
Prep Batch ID:	1126773	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	10	17	40	**454**	x	mg/Kg	11/05/20	19:27	SN	451947
TPH as Motor Oil (SG)	SW8015B	10	64	200	**961**		mg/Kg	11/05/20	19:27	SN	451947
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**0.000**	D	%	11/05/20	19:27	SN	451947

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-W@5'	**Lab Sample ID:**	2011017-001A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 11:00		
SDG:			

Prep Method:	5035GRO	**Prep Batch Date/Time:**	11/4/20 10:37:00AM
Prep Batch ID:	1126768	**Prep Analyst:**	ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/04/20	19:52	AD	451900
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**37.6**	S	%	11/04/20	19:52	AD	451900

NOTE: S – Surrogate recovery out of limits. Duplicate analysis yielded similar results indicating a matrix effect.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-W@5'	**Lab Sample ID:**	2011017-001A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 11:00		
SDG:			

Prep Method:	5035	**Prep Batch Date/Time:**	11/4/20 10:37:00AM
Prep Batch ID:	1126767	**Prep Analyst:**	ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/04/20	19:52	AD	451900
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/04/20	19:52	AD	451900
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/04/20	19:52	AD	451900
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/04/20	19:52	AD	451900
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/04/20	19:52	AD	451900
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/04/20	19:52	AD	451900
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**153**	S	%	11/04/20	19:52	AD	451900
(S) Toluene-d8	SW8260B		55.2 - 133		**117**		%	11/04/20	19:52	AD	451900
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**116**		%	11/04/20	19:52	AD	451900

NOTE: S – Surrogate recovery out of limits. Duplicate analysis yielded similar results indicating a matrix effect.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-W@10'	**Lab Sample ID:**	2011017-002A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 11:05		
SDG:			

Prep Method:	3546_TPHSG	**Prep Batch Date/Time:**	11/4/20 2:18:00PM
Prep Batch ID:	1126773	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	10	17	40	**372**	x	mg/Kg	11/05/20	19:51	SN	451947
TPH as Motor Oil (SG)	SW8015B	10	64	200	**610**		mg/Kg	11/05/20	19:51	SN	451947
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**0.000**	D	%	11/05/20	19:51	SN	451947

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-W@10'	**Lab Sample ID:**	2011017-002A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 11:05		
SDG:			

Prep Method:	5035GRO	**Prep Batch Date/Time:**	11/5/20	1:38:00PM
Prep Batch ID:	1126820	**Prep Analyst:**	JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	19:21	JZ	451935
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**50.7**		%	11/05/20	19:21	JZ	451935

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-W@10'	**Lab Sample ID:**	2011017-002A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 11:05		
SDG:			

Prep Method:	5035	**Prep Batch Date/Time:**	11/5/20 1:38:00PM
Prep Batch ID:	1126817	**Prep Analyst:**	JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	19:21	JZ	451935
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	19:21	JZ	451935
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	19:21	JZ	451935
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	19:21	JZ	451935
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	19:21	JZ	451935
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	19:21	JZ	451935
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**148**		%	11/05/20	19:21	JZ	451935
(S) Toluene-d8	SW8260B		55.2 - 133		**116**		%	11/05/20	19:21	JZ	451935
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**121**		%	11/05/20	19:21	JZ	451935

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-S@5'	**Lab Sample ID:**	2011017-003A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 11:12		
SDG:			

Prep Method:	3546_TPHSG	**Prep Batch Date/Time:**	11/4/20 2:18:00PM
Prep Batch ID:	1126773	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	4	6.8	16	**173**	x	mg/Kg	11/05/20	20:14	SN	451947
TPH as Motor Oil (SG)	SW8015B	4	25	80	**415**		mg/Kg	11/05/20	20:14	SN	451947
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**90.3**		%	11/05/20	20:14	SN	451947

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-S@5'	**Lab Sample ID:**	2011017-003A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 11:12		
SDG:			

Prep Method:	5035GRO	**Prep Batch Date/Time:**	11/5/20 9:55:00AM
Prep Batch ID:	1126803	**Prep Analyst:**	ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	13:13	AD	451926
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**77.6**		%	11/05/20	13:13	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-S@5'	**Lab Sample ID:**	2011017-003A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 11:12		
SDG:			

Prep Method:	5035	**Prep Batch Date/Time:**	11/5/20 9:55:00AM
Prep Batch ID:	1126800	**Prep Analyst:**	ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	13:13	AD	451926
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	13:13	AD	451926
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	13:13	AD	451926
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	13:13	AD	451926
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	13:13	AD	451926
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	13:13	AD	451926
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**80.7**		%	11/05/20	13:13	AD	451926
(S) Toluene-d8	SW8260B		55.2 - 133		**98.7**		%	11/05/20	13:13	AD	451926
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**77.6**		%	11/05/20	13:13	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-S@10'	**Lab Sample ID:**	2011017-004A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 11:00		
SDG:			

Prep Method:	3546_TPHSG	**Prep Batch Date/Time:**	11/4/20 2:18:00PM
Prep Batch ID:	1126773	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	5	8.5	20	**270**	x	mg/Kg	11/05/20	20:37	SN	451947
TPH as Motor Oil (SG)	SW8015B	5	32	100	**424**		mg/Kg	11/05/20	20:37	SN	451947
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**88.8**		%	11/05/20	20:37	SN	451947

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-S@10'	**Lab Sample ID:**	2011017-004A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 11:00		
SDG:			

Prep Method:	5035GRO	**Prep Batch Date/Time:**	11/4/20 10:37:00AM
Prep Batch ID:	1126768	**Prep Analyst:**	ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/04/20	20:52	AD	451900
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**46.3**		%	11/04/20	20:52	AD	451900

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-S@10'	**Lab Sample ID:**	2011017-004A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 11:00		
SDG:			

Prep Method:	5035	**Prep Batch Date/Time:**	11/4/20 10:37:00AM
Prep Batch ID:	1126767	**Prep Analyst:**	ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/04/20	20:52	AD	451900
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/04/20	20:52	AD	451900
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/04/20	20:52	AD	451900
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/04/20	20:52	AD	451900
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/04/20	20:52	AD	451900
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/04/20	20:52	AD	451900
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**154**	S	%	11/04/20	20:52	AD	451900
(S) Toluene-d8	SW8260B		55.2 - 133		**116**		%	11/04/20	20:52	AD	451900
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**127**		%	11/04/20	20:52	AD	451900

NOTE: S – Surrogate recovery out of limits. Duplicate analysis yielded similar results indicating a matrix effect.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-E@5'	**Lab Sample ID:**	2011017-005A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 11:21		
SDG:			

Prep Method:	3546_TPHSG	**Prep Batch Date/Time:**	11/4/20 2:18:00PM
Prep Batch ID:	1126773	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	2	3.4	8.0	**70.7**	x	mg/Kg	11/06/20	13:41	SN	451947
TPH as Motor Oil (SG)	SW8015B	2	13	40	**199**		mg/Kg	11/06/20	13:41	SN	451947
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**74.5**		%	11/06/20	13:41	SN	451947

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-E@5'	**Lab Sample ID:**	2011017-005A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 11:21		
SDG:			

Prep Method:	5035GRO	**Prep Batch Date/Time:**	11/5/20	9:55:00AM
Prep Batch ID:	1126803	**Prep Analyst:**	ADEB	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	14:11	AD	451926
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**83.2**		%	11/05/20	14:11	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-E@5'	**Lab Sample ID:**	2011017-005A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 11:21		
SDG:			

Prep Method:	5035	**Prep Batch Date/Time:**	11/5/20 9:55:00AM
Prep Batch ID:	1126800	**Prep Analyst:**	ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	14:11	AD	451926
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	14:11	AD	451926
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	14:11	AD	451926
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	14:11	AD	451926
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	14:11	AD	451926
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	14:11	AD	451926
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**81.0**		%	11/05/20	14:11	AD	451926
(S) Toluene-d8	SW8260B		55.2 - 133		**99.8**		%	11/05/20	14:11	AD	451926
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**83.2**		%	11/05/20	14:11	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-E@10'	**Lab Sample ID:**	2011017-006A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 11:24		
SDG:			

Prep Method:	3546_TPHSG	**Prep Batch Date/Time:**	11/4/20 2:18:00PM
Prep Batch ID:	1126773	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	20	34	80	**372**	x	mg/Kg	11/05/20	21:24	SN	451947
TPH as Motor Oil (SG)	SW8015B	20	130	400	**609**		mg/Kg	11/05/20	21:24	SN	451947
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**0.000**	D	%	11/05/20	21:24	SN	451947

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-E@10'	**Lab Sample ID:**	2011017-006A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 11:24		
SDG:			

Prep Method:	5035GRO	**Prep Batch Date/Time:**	11/5/20	9:55:00AM
Prep Batch ID:	1126803	**Prep Analyst:**	ADEB	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	14:40	AD	451926
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**77.5**		%	11/05/20	14:40	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-E@10'	**Lab Sample ID:**	2011017-006A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 11:24		
SDG:			

Prep Method:	5035	**Prep Batch Date/Time:**	11/5/20 9:55:00AM
Prep Batch ID:	1126800	**Prep Analyst:**	ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	14:40	AD	451926
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	14:40	AD	451926
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	14:40	AD	451926
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	14:40	AD	451926
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	14:40	AD	451926
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	14:40	AD	451926
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**78.4**		%	11/05/20	14:40	AD	451926
(S) Toluene-d8	SW8260B		55.2 - 133		**98.7**		%	11/05/20	14:40	AD	451926
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**77.5**		%	11/05/20	14:40	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-C@5'	**Lab Sample ID:**	2011017-007A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 12:37		
SDG:			

Prep Method:	3546_TPHSG	**Prep Batch Date/Time:**	11/4/20 2:18:00PM
Prep Batch ID:	1126773	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	3	2.6	6.0	**69.9**	x	mg/Kg	11/05/20	21:47	SN	451947
TPH as Motor Oil (SG)	SW8015B	3	9.5	30	**160**		mg/Kg	11/05/20	21:47	SN	451947
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**73.4**		%	11/05/20	21:47	SN	451947

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-C@5'	**Lab Sample ID:**	2011017-007A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 12:37		
SDG:			

Prep Method:	5035GRO	**Prep Batch Date/Time:**	11/5/20	9:55:00AM
Prep Batch ID:	1126803	**Prep Analyst:**	ADEB	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	15:08	AD	451926
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**67.7**		%	11/05/20	15:08	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-C@5'	**Lab Sample ID:**	2011017-007A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 12:37		
SDG:			

Prep Method:	5035	**Prep Batch Date/Time:**	11/5/20 9:55:00AM
Prep Batch ID:	1126800	**Prep Analyst:**	ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	15:08	AD	451926
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	15:08	AD	451926
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	15:08	AD	451926
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	15:08	AD	451926
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	15:08	AD	451926
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	15:08	AD	451926
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**76.2**		%	11/05/20	15:08	AD	451926
(S) Toluene-d8	SW8260B		55.2 - 133		**100**		%	11/05/20	15:08	AD	451926
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**67.7**		%	11/05/20	15:08	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-C@10'	**Lab Sample ID:**	2011017-008A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 12:39		
SDG:			

Prep Method:	3546_TPHSG	**Prep Batch Date/Time:**	11/4/20 2:18:00PM
Prep Batch ID:	1126773	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	5	4.3	10	**126**	x	mg/Kg	11/05/20	23:21	SN	451947
TPH as Motor Oil (SG)	SW8015B	5	16	50	**202**		mg/Kg	11/05/20	23:21	SN	451947
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**74.8**		%	11/05/20	23:21	SN	451947

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-C@10'	**Lab Sample ID:**	2011017-008A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 12:39		
SDG:			

Prep Method:	5035GRO	**Prep Batch Date/Time:**	11/5/20	9:55:00AM
Prep Batch ID:	1126803	**Prep Analyst:**	ADEB	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	15:36	AD	451926
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**83.6**		%	11/05/20	15:36	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-C@10'	**Lab Sample ID:**	2011017-008A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 12:39		
SDG:			

Prep Method:	5035	**Prep Batch Date/Time:**	11/5/20 9:55:00AM
Prep Batch ID:	1126800	**Prep Analyst:**	ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	15:36	AD	451926
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	15:36	AD	451926
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	15:36	AD	451926
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	15:36	AD	451926
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	15:36	AD	451926
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	15:36	AD	451926
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**72.5**		%	11/05/20	15:36	AD	451926
(S) Toluene-d8	SW8260B		55.2 - 133		**98.3**		%	11/05/20	15:36	AD	451926
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**82.2**		%	11/05/20	15:36	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-N@5'	**Lab Sample ID:**	2011017-009A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 12:43		
SDG:			

Prep Method:	3546_TPHSG	**Prep Batch Date/Time:**	11/4/20 2:18:00PM
Prep Batch ID:	1126773	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	3	5.1	12	**124**	x	mg/Kg	11/05/20	23:44	SN	451947
TPH as Motor Oil (SG)	SW8015B	3	19	60	**312**		mg/Kg	11/05/20	23:44	SN	451947
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**76.2**		%	11/05/20	23:44	SN	451947

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-N@5'	**Lab Sample ID:**	2011017-009A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 12:43		
SDG:			

Prep Method:	5035GRO	**Prep Batch Date/Time:**	11/5/20	9:55:00AM
Prep Batch ID:	1126803	**Prep Analyst:**	ADEB	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	16:05	AD	451926
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**83.4**		%	11/05/20	16:05	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-N@5'	**Lab Sample ID:**	2011017-009A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 12:43		
SDG:			

Prep Method:	5035	**Prep Batch Date/Time:**	11/5/20 9:55:00AM
Prep Batch ID:	1126800	**Prep Analyst:**	ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	16:05	AD	451926
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	16:05	AD	451926
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	16:05	AD	451926
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	16:05	AD	451926
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	16:05	AD	451926
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	16:05	AD	451926
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**75.3**		%	11/05/20	16:05	AD	451926
(S) Toluene-d8	SW8260B		55.2 - 133		**96.1**		%	11/05/20	16:05	AD	451926
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**81.5**		%	11/05/20	16:05	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-N@10'	**Lab Sample ID:**	2011017-010A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 12:45		
SDG:			

Prep Method:	3546_TPHSG	**Prep Batch Date/Time:**	11/4/20 2:18:00PM
Prep Batch ID:	1126773	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	20	17	40	**195**	x	mg/Kg	11/06/20	0:07	SN	451947
TPH as Motor Oil (SG)	SW8015B	20	64	200	**343**		mg/Kg	11/06/20	0:07	SN	451947
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**0.000**	D	%	11/06/20	0:07	SN	451947

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-N@10'	**Lab Sample ID:**	2011017-010A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 12:45		
SDG:			

Prep Method:	5035GRO	**Prep Batch Date/Time:**	11/5/20	9:55:00AM
Prep Batch ID:	1126803	**Prep Analyst:**	ADEB	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	16:33	AD	451926
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**72.8**		%	11/05/20	16:33	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-31-10-N@10'	**Lab Sample ID:**	2011017-010A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 12:45		
SDG:			

Prep Method:	5035	**Prep Batch Date/Time:**	11/5/20	9:55:00AM
Prep Batch ID:	1126800	**Prep Analyst:**	ADEB	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	16:33	AD	451926
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	16:33	AD	451926
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	16:33	AD	451926
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	16:33	AD	451926
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	16:33	AD	451926
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	16:33	AD	451926
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**75.2**		%	11/05/20	16:33	AD	451926
(S) Toluene-d8	SW8260B		55.2 - 133		**95.0**		%	11/05/20	16:33	AD	451926
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**80.9**		%	11/05/20	16:33	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-TF-6@5'	**Lab Sample ID:**	2011017-011A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 13:36		
SDG:			

Prep Method:	3546_TPHSG	**Prep Batch Date/Time:**	11/4/20 2:18:00PM
Prep Batch ID:	1126773	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	2	1.7	4.0	**54.2**	x	mg/Kg	11/06/20	0:31	SN	451947
TPH as Motor Oil (SG)	SW8015B	2	6.4	20	**192**		mg/Kg	11/06/20	0:31	SN	451947
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**95.4**		%	11/06/20	0:31	SN	451947

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-TF-6@5'	**Lab Sample ID:**	2011017-011A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 13:36		
SDG:			

Prep Method:	5035GRO	**Prep Batch Date/Time:**	11/5/20	9:55:00AM
Prep Batch ID:	1126803	**Prep Analyst:**	ADEB	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	17:02	AD	451926
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**79.6**		%	11/05/20	17:02	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-TF-6@5'	**Lab Sample ID:**	2011017-011A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 13:36		
SDG:			

Prep Method:	5035	**Prep Batch Date/Time:**	11/5/20 9:55:00AM
Prep Batch ID:	1126800	**Prep Analyst:**	ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	17:02	AD	451926
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	17:02	AD	451926
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	17:02	AD	451926
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	17:02	AD	451926
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	17:02	AD	451926
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	17:02	AD	451926
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**72.3**		%	11/05/20	17:02	AD	451926
(S) Toluene-d8	SW8260B		55.2 - 133		**96.6**		%	11/05/20	17:02	AD	451926
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**82.8**		%	11/05/20	17:02	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-TF-6@10'	**Lab Sample ID:**	2011017-012A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 13:40		
SDG:			

Prep Method:	3546_TPHSG	**Prep Batch Date/Time:**	11/4/20 2:18:00PM
Prep Batch ID:	1126773	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	3	2.6	6.0	**36.2**	x	mg/Kg	11/06/20	14:04	SN	451947
TPH as Motor Oil (SG)	SW8015B	3	9.5	30	**131**		mg/Kg	11/06/20	14:04	SN	451947
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**102**		%	11/06/20	14:04	SN	451947

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-TF-6@10'	**Lab Sample ID:**	2011017-012A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 13:40		
SDG:			

Prep Method:	5035GRO	**Prep Batch Date/Time:**	11/5/20	9:55:00AM
Prep Batch ID:	1126803	**Prep Analyst:**	ADEB	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	17:30	AD	451926
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**75.2**		%	11/05/20	17:30	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-TF-6@10'	**Lab Sample ID:**	2011017-012A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 13:40		
SDG:			

Prep Method:	5035	**Prep Batch Date/Time:**	11/5/20	9:55:00AM
Prep Batch ID:	1126800	**Prep Analyst:**	ADEB	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	17:30	AD	451926
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	17:30	AD	451926
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	17:30	AD	451926
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	17:30	AD	451926
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	17:30	AD	451926
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	17:30	AD	451926
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**68.7**		%	11/05/20	17:30	AD	451926
(S) Toluene-d8	SW8260B		55.2 - 133		**97.8**		%	11/05/20	17:30	AD	451926
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**80.3**		%	11/05/20	17:30	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-TF-3@5'	**Lab Sample ID:**	2011017-013A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 13:45		
SDG:			

Prep Method:	3546_TPHSG	**Prep Batch Date/Time:**	11/4/20	2:18:00PM
Prep Batch ID:	1126773	**Prep Analyst:**	NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**8.00**	x	mg/Kg	11/06/20	1:17	SN	451947
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**14.9**		mg/Kg	11/06/20	1:17	SN	451947
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**79.1**		%	11/06/20	1:17	SN	451947

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-TF-3@5'	**Lab Sample ID:**	2011017-013A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 13:45		
SDG:			

Prep Method:	5035GRO	**Prep Batch Date/Time:**	11/5/20	9:55:00AM
Prep Batch ID:	1126803	**Prep Analyst:**	ADEB	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	17:58	AD	451926
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**87.4**		%	11/05/20	17:58	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-TF-3@5'	**Lab Sample ID:**	2011017-013A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 13:45		
SDG:			

Prep Method:	5035	**Prep Batch Date/Time:**	11/5/20 9:55:00AM
Prep Batch ID:	1126800	**Prep Analyst:**	ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	17:58	AD	451926
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	17:58	AD	451926
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	17:58	AD	451926
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	17:58	AD	451926
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	17:58	AD	451926
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	17:58	AD	451926
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**69.7**		%	11/05/20	17:58	AD	451926
(S) Toluene-d8	SW8260B		55.2 - 133		**95.8**		%	11/05/20	17:58	AD	451926
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**81.5**		%	11/05/20	17:58	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-TF-3@10'	**Lab Sample ID:**	2011017-014A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 13:49		
SDG:			

Prep Method:	3546_TPHSG	**Prep Batch Date/Time:**	11/4/20 2:18:00PM
Prep Batch ID:	1126773	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**6.97**	x	mg/Kg	11/06/20	1:41	SN	451947
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**11.8**		mg/Kg	11/06/20	1:41	SN	451947
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**82.7**		%	11/06/20	1:41	SN	451947

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-TF-3@10'	**Lab Sample ID:**	2011017-014A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 13:49		
SDG:			

Prep Method:	5035GRO	**Prep Batch Date/Time:**	11/5/20	9:55:00AM
Prep Batch ID:	1126803	**Prep Analyst:**	ADEB	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	18:27	AD	451926
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**84.4**		%	11/05/20	18:27	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-TF-3@10'	**Lab Sample ID:**	2011017-014A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 13:49		
SDG:			

Prep Method:	5035	**Prep Batch Date/Time:**	11/5/20 9:55:00AM
Prep Batch ID:	1126800	**Prep Analyst:**	ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	18:27	AD	451926
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	18:27	AD	451926
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	18:27	AD	451926
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	18:27	AD	451926
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	18:27	AD	451926
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	18:27	AD	451926
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**71.5**		%	11/05/20	18:27	AD	451926
(S) Toluene-d8	SW8260B		55.2 - 133		**94.0**		%	11/05/20	18:27	AD	451926
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**79.0**		%	11/05/20	18:27	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-TF-2@5'	**Lab Sample ID:**	2011017-015A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 14:02		
SDG:			

Prep Method:	3546_TPHSG	**Prep Batch Date/Time:**	11/4/20 2:18:00PM
Prep Batch ID:	1126773	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**8.37**	x	mg/Kg	11/06/20	2:04	SN	451947
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**14.1**		mg/Kg	11/06/20	2:04	SN	451947
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**89.5**		%	11/06/20	2:04	SN	451947

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-TF-2@5'	**Lab Sample ID:**	2011017-015A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 14:02		
SDG:			

Prep Method:	5035GRO	**Prep Batch Date/Time:**	11/5/20	9:55:00AM
Prep Batch ID:	1126803	**Prep Analyst:**	ADEB	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	18:55	AD	451926
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**90.0**		%	11/05/20	18:55	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-TF-2@5'	**Lab Sample ID:**	2011017-015A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 14:02		
SDG:			

Prep Method:	5035	**Prep Batch Date/Time:**	11/5/20 9:55:00AM
Prep Batch ID:	1126800	**Prep Analyst:**	ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	18:55	AD	451926
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	18:55	AD	451926
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	18:55	AD	451926
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	18:55	AD	451926
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	18:55	AD	451926
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	18:55	AD	451926
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**67.3**		%	11/05/20	18:55	AD	451926
(S) Toluene-d8	SW8260B		55.2 - 133		**97.2**		%	11/05/20	18:55	AD	451926
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**78.9**		%	11/05/20	18:55	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-TF-2@10'	**Lab Sample ID:**	2011017-016A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 14:06		
SDG:			

Prep Method:	3546_TPHSG	**Prep Batch Date/Time:**	11/4/20 2:18:00PM
Prep Batch ID:	1126773	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**12.9**	x	mg/Kg	11/06/20	2:28	SN	451947
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**24.2**		mg/Kg	11/06/20	2:28	SN	451947
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**99.7**		%	11/06/20	2:28	SN	451947

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-TF-2@10'	**Lab Sample ID:**	2011017-016A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 14:06		
SDG:			

Prep Method:	5035GRO	**Prep Batch Date/Time:**	11/5/20	9:55:00AM
Prep Batch ID:	1126803	**Prep Analyst:**	ADEB	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	19:24	AD	451926
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**90.0**		%	11/05/20	19:24	AD	451926

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/03/20, 10:30 am
Date Reported: 11/06/20

Client Sample ID:	S-TF-2@10'	**Lab Sample ID:**	2011017-016A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/02/20 / 14:06		
SDG:			

Prep Method:	5035	**Prep Batch Date/Time:**	11/5/20 9:55:00AM
Prep Batch ID:	1126800	**Prep Analyst:**	ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	19:24	AD	451926
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	19:24	AD	451926
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	19:24	AD	451926
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	19:24	AD	451926
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	19:24	AD	451926
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	19:24	AD	451926
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**70.0**		%	11/05/20	19:24	AD	451926
(S) Toluene-d8	SW8260B		55.2 - 133		**93.1**		%	11/05/20	19:24	AD	451926
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**82.0**		%	11/05/20	19:24	AD	451926

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011017	**Prep Method:**	5035	**Prep Date:**	11/04/20	**Prep Batch:**	1126767
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/4/2020	**Analytical Batch:**	451900
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	1.2	10	ND		
Chloromethane	1.8	10	ND		
Vinyl Chloride	2.0	10	ND		
Bromomethane	2.7	10	ND		
Chloroethane	3.0	10	ND		
Trichlorofluoromethane	2.1	10	ND		
1,1-Dichloroethene	2.0	10	ND		
Freon 113	1.9	10	ND		
Methylene Chloride	7.1	10	ND		
trans-1,2-Dichloroethene	2.1	10	ND		
MTBE	2.3	10	ND		
TBA	12	50	ND		
Diisopropyl ether	2.3	10	ND		
1,1-Dichloroethane	2.2	10	ND		
Ethyl tert-Butyl ether	2.3	10	ND		
cis-1,2-Dichloroethene	2.2	10	ND		
2,2-Dichloropropane	1.9	10	ND		
Bromochloromethane	2.3	10	ND		
Chloroform	2.4	10	ND		
Carbon Tetrachloride	2.1	10	ND		
1,1,1-Trichloroethane	2.1	10	ND		
1,1-Dichloropropene	2.0	10	ND		
Benzene	2.2	10	ND		
TAME	2.3	10	ND		
1,2-Dichloroethane	2.3	10	ND		
Trichloroethylene	1.8	10	ND		
Dibromomethane	1.8	10	ND		
1,2-Dichloropropane	1.9	10	ND		
Bromodichloromethane	2.0	10	ND		
cis-1,3-Dichloropropene	1.6	10	ND		
Toluene	1.8	10	ND		
Tetrachloroethylene	1.7	10	ND		
trans-1,3-Dichloropropene	1.6	10	ND		
1,1,2-Trichloroethane	1.8	10	ND		
Dibromochloromethane	1.9	10	ND		
1,3-Dichloropropane	1.8	10	ND		
1,2-Dibromoethane	1.8	10	ND		
Chlorobenzene	1.8	10	ND		
Ethylbenzene	1.7	10	ND		
1,1,1,2-Tetrachloroethane	1.9	10	ND		
m,p-Xylene	3.2	10	ND		
o-Xylene	1.7	10	ND		
Styrene	1.6	10	ND		
Bromoform	1.7	10	ND		
Isopropyl Benzene	1.6	10	ND		

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011017	**Prep Method:**	5035	**Prep Date:**	11/04/20	**Prep Batch:**	1126767
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/4/2020	**Analytical Batch:**	451900
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
n-Propylbenzene	1.6	10	ND	
Bromobenzene	1.8	10	ND	
1,1,2,2-Tetrachloroethane	1.9	10	ND	
2-Chlorotoluene	1.8	10	ND	
1,3,5-Trimethylbenzene	1.6	10	ND	
1,2,3-Trichloropropane	1.9	10	ND	
4-Chlorotoluene	1.6	10	ND	
tert-Butylbenzene	1.6	10	ND	
1,2,4-Trimethylbenzene	1.4	10	ND	
sec-Butyl Benzene	1.6	10	ND	
p-Isopropyltoluene	1.5	10	ND	
1,3-Dichlorobenzene	1.7	10	ND	
1,4-Dichlorobenzene	1.7	10	ND	
n-Butylbenzene	1.5	10	ND	
1,2-Dichlorobenzene	1.8	10	ND	
1,2-Dibromo-3-Chloropropane	1.8	10	ND	
Hexachlorobutadiene	1.4	10	ND	
1,2,4-Trichlorobenzene	1.5	10	ND	
Naphthalene	1.7	10	ND	
1,2,3-Trichlorobenzene	1.7	10	ND	
2-Butanone	2.3	10	ND	
4-Methyl-2-Pentanone (MIBK)	2.0	50	ND	
Hexachloroethane	5.0	10	ND	
1,4-Dioxane	100	200	ND	
2-Hexanone	5.0	20	ND	
Acetone	8.2	20	12	
(S) Dibromofluoromethane			140	
(S) Toluene-d8			114	
(S) 4-Bromofluorobenzene			108	

Work Order:	2011017	**Prep Method:**	5035GRO	**Prep Date:**	11/04/20	**Prep Batch:**	1126768
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/4/2020	**Analytical Batch:**	451900
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Gasoline	43	100	ND	
(S) 4-Bromofluorobenzene			64.7	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011017	**Prep Method:**	3546_TPHSG	**Prep Date:**	11/04/20	**Prep Batch:**	1126773
Matrix:	Soil	**Analytical Method:**	SW8015B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451947
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
TPH as Diesel (SG)	0.85	2.0	ND		
TPH as Motor Oil (SG)	3.2	10	ND		
Pentacosane (S)			97.7		

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011017	**Prep Method:**	5035	**Prep Date:**	11/05/20	**Prep Batch:**	1126800
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451926
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	1.2	10	ND	
Chloromethane	1.8	10	ND	
Vinyl Chloride	2.0	10	ND	
Bromomethane	2.7	10	ND	
Chloroethane	3.0	10	ND	
Trichlorofluoromethane	2.1	10	ND	
1,1-Dichloroethene	2.0	10	ND	
Freon 113	1.9	10	ND	
Methylene Chloride	7.1	10	ND	
trans-1,2-Dichloroethene	2.1	10	ND	
MTBE	2.3	10	ND	
TBA	12	50	ND	
Diisopropyl ether	2.3	10	ND	
1,1-Dichloroethane	2.2	10	ND	
Ethyl tert-Butyl ether	2.3	10	ND	
cis-1,2-Dichloroethene	2.2	10	ND	
2,2-Dichloropropane	1.9	10	ND	
Bromochloromethane	2.3	10	ND	
Chloroform	2.4	10	ND	
Carbon Tetrachloride	2.1	10	ND	
1,1,1-Trichloroethane	2.1	10	ND	
1,1-Dichloropropene	2.0	10	ND	
Benzene	2.2	10	ND	
TAME	2.3	10	ND	
1,2-Dichloroethane	2.3	10	ND	
Trichloroethylene	1.8	10	ND	
Dibromomethane	1.8	10	ND	
1,2-Dichloropropane	1.9	10	ND	
Bromodichloromethane	2.0	10	ND	
cis-1,3-Dichloropropene	1.6	10	ND	
Toluene	1.8	10	ND	
Tetrachloroethylene	1.7	10	ND	
trans-1,3-Dichloropropene	1.6	10	ND	
1,1,2-Trichloroethane	1.8	10	ND	
Dibromochloromethane	1.9	10	ND	
1,3-Dichloropropane	1.8	10	ND	
1,2-Dibromoethane	1.8	10	ND	
Chlorobenzene	1.8	10	ND	
Ethylbenzene	1.7	10	ND	
1,1,1,2-Tetrachloroethane	1.9	10	ND	
m,p-Xylene	3.2	10	ND	
o-Xylene	1.7	10	ND	
Styrene	1.6	10	ND	
Bromoform	1.7	10	ND	
Isopropyl Benzene	1.6	10	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011017	**Prep Method:**	5035	**Prep Date:**	11/05/20	**Prep Batch:**	1126800
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451926
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
n-Propylbenzene	1.6	10	ND	
Bromobenzene	1.8	10	ND	
1,1,2,2-Tetrachloroethane	1.9	10	ND	
2-Chlorotoluene	1.8	10	ND	
1,3,5-Trimethylbenzene	1.6	10	ND	
1,2,3-Trichloropropane	1.9	10	ND	
4-Chlorotoluene	1.6	10	ND	
tert-Butylbenzene	1.6	10	ND	
1,2,4-Trimethylbenzene	1.4	10	ND	
sec-Butyl Benzene	1.6	10	ND	
p-Isopropyltoluene	1.5	10	ND	
1,3-Dichlorobenzene	1.7	10	ND	
1,4-Dichlorobenzene	1.7	10	ND	
n-Butylbenzene	1.5	10	ND	
1,2-Dichlorobenzene	1.8	10	ND	
1,2-Dibromo-3-Chloropropane	1.8	10	ND	
Hexachlorobutadiene	1.4	10	1.7	
1,2,4-Trichlorobenzene	1.5	10	1.7	
Naphthalene	1.7	10	2.1	
1,2,3-Trichlorobenzene	1.7	10	2.0	
2-Butanone	2.3	10	ND	
4-Methyl-2-Pentanone (MIBK)	2.0	50	ND	
Hexachloroethane	5.0	10	ND	
1,4-Dioxane	100	200	ND	
2-Hexanone	5.0	20	ND	
Acetone	8.2	20	ND	
(S) Dibromofluoromethane			84.7	
(S) Toluene-d8			95.5	
(S) 4-Bromofluorobenzene			82.4	

Work Order:	2011017	**Prep Method:**	5035GRO	**Prep Date:**	11/05/20	**Prep Batch:**	1126803
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451926
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Gasoline	43	100	ND	
(S) 4-Bromofluorobenzene			101	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011017	**Prep Method:**	5035	**Prep Date:**	11/05/20	**Prep Batch:**	1126817
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451935
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	1.2	10	ND	
Chloromethane	1.8	10	ND	
Vinyl Chloride	2.0	10	ND	
Bromomethane	2.7	10	ND	
Chloroethane	3.0	10	ND	
Trichlorofluoromethane	2.1	10	ND	
1,1-Dichloroethene	2.0	10	ND	
Freon 113	1.9	10	ND	
Methylene Chloride	7.1	10	ND	
trans-1,2-Dichloroethene	2.1	10	ND	
MTBE	2.3	10	ND	
TBA	12	50	ND	
Diisopropyl ether	2.3	10	ND	
1,1-Dichloroethane	2.2	10	ND	
Ethyl tert-Butyl ether	2.3	10	ND	
cis-1,2-Dichloroethene	2.2	10	ND	
2,2-Dichloropropane	1.9	10	ND	
Bromochloromethane	2.3	10	ND	
Chloroform	2.4	10	ND	
Carbon Tetrachloride	2.1	10	ND	
1,1,1-Trichloroethane	2.1	10	ND	
1,1-Dichloropropene	2.0	10	ND	
Benzene	2.2	10	ND	
TAME	2.3	10	ND	
1,2-Dichloroethane	2.3	10	ND	
Trichloroethylene	1.8	10	ND	
Dibromomethane	1.8	10	ND	
1,2-Dichloropropane	1.9	10	ND	
Bromodichloromethane	2.0	10	ND	
cis-1,3-Dichloropropene	1.6	10	ND	
Toluene	1.8	10	ND	
Tetrachloroethylene	1.7	10	ND	
trans-1,3-Dichloropropene	1.6	10	ND	
1,1,2-Trichloroethane	1.8	10	ND	
Dibromochloromethane	1.9	10	ND	
1,3-Dichloropropane	1.8	10	ND	
1,2-Dibromoethane	1.8	10	ND	
Chlorobenzene	1.8	10	ND	
Ethylbenzene	1.7	10	ND	
1,1,1,2-Tetrachloroethane	1.9	10	ND	
m,p-Xylene	3.2	10	ND	
o-Xylene	1.7	10	ND	
Styrene	1.6	10	ND	
Bromoform	1.7	10	ND	
Isopropyl Benzene	1.6	10	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011017	**Prep Method:**	5035	**Prep Date:**	11/05/20	**Prep Batch:**	1126817
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451935
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
n-Propylbenzene	1.6	10	ND	
Bromobenzene	1.8	10	ND	
1,1,2,2-Tetrachloroethane	1.9	10	ND	
2-Chlorotoluene	1.8	10	ND	
1,3,5-Trimethylbenzene	1.6	10	ND	
1,2,3-Trichloropropane	1.9	10	ND	
4-Chlorotoluene	1.6	10	ND	
tert-Butylbenzene	1.6	10	ND	
1,2,4-Trimethylbenzene	1.4	10	ND	
sec-Butyl Benzene	1.6	10	ND	
p-Isopropyltoluene	1.5	10	ND	
1,3-Dichlorobenzene	1.7	10	ND	
1,4-Dichlorobenzene	1.7	10	ND	
n-Butylbenzene	1.5	10	ND	
1,2-Dichlorobenzene	1.8	10	ND	
1,2-Dibromo-3-Chloropropane	1.8	10	ND	
Hexachlorobutadiene	1.4	10	ND	
1,2,4-Trichlorobenzene	1.5	10	7.7	
Naphthalene	1.7	10	5.9	
1,2,3-Trichlorobenzene	1.7	10	2.0	
2-Butanone	2.3	10	ND	
(S) Dibromofluoromethane			127	
(S) Toluene-d8			115	
(S) 4-Bromofluorobenzene			110	

Work Order:	2011017	**Prep Method:**	5035GRO	**Prep Date:**	11/05/20	**Prep Batch:**	1126820
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451935
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Gasoline	43	100	ND	
(S) 4-Bromofluorobenzene			65.6	

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011017	**Prep Method:**	5035	**Prep Date:**	11/04/20	**Prep Batch:**	1126767
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/4/2020	**Analytical Batch:**	451900
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	2.0	10	ND	50.0	83.6	96.3	14.2	53.7 - 139	30	
Benzene	2.2	10	ND	50.0	90.0	102	12.9	66.5 - 135	30	
Trichloroethylene	1.8	10	ND	50.0	91.5	102	11.1	57.5 - 150	30	
Toluene	1.8	10	ND	50.0	97.2	110	12.5	56.8 - 134	30	
Chlorobenzene	1.8	10	ND	50.0	92.0	105	13.4	57.4 - 134	30	
(S) Dibromofluoromethane				50.0	90.1	107		59.8 - 148		
(S) Toluene-d8				50.0	93.6	108		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	90.5	102		55.8 - 141		

Work Order:	2011017	**Prep Method:**	5035	**Prep Date:**	11/04/20	**Prep Batch:**	1126767
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/4/2020	**Analytical Batch:**	451900
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
MTBE	2.34	10.0		50.0	82.9	99.0	17.6	70 - 130	30	
Benzene	2.2	10		50.0	90.0	102	12.9	66.5 - 135	30	
Ethylbenzene	1.65	10.0		50.0	93.2	109	15.6	70 - 130	30	
Toluene	1.82	10		50.0	97.2	110	12.5	56.8 - 134	30	
m,p-Xylene	3.16	10.0		100	99.1	114	14.0	70 - 130	30	
o-Xylene	1.73	10.0		50.0	84.4	96.7	13.7	70 - 130	30	
(S) Dibromofluoromethane				50.0	90.1	107		59.8 - 148		
(S) Toluene-d8				50.0	93.6	108		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	90.5	102		55.8 - 141		

Work Order:	2011017	**Prep Method:**	5035GRO	**Prep Date:**	11/04/20	**Prep Batch:**	1126768
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/4/2020	**Analytical Batch:**	451900
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	43	100	ND	1000	92.0	82.0	11.5	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	87.1	74.0		43.9 - 127		

Work Order:	2011017	**Prep Method:**	3546_TPHSG	**Prep Date:**	11/04/20	**Prep Batch:**	1126773
Matrix:	Soil	**Analytical Method:**	SW8015B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451947
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	0.85	2.0	ND	25.0	71.2	64.1	10.7	40 - 110	30	
Pentacosane (S)			ND	200	97.1	90.8		40 - 129		

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011017	**Prep Method:**	5035	**Prep Date:**	11/05/20	**Prep Batch:**	1126800
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451926
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	2.0	10	ND	50.0	90.3	82.8	8.55	53.7 - 139	30	
Benzene	2.2	10	ND	50.0	103	93.8	9.35	66.5 - 135	30	
Trichloroethylene	1.8	10	ND	50.0	93.2	85.7	8.27	57.5 - 150	30	
Toluene	1.8	10	ND	50.0	97.1	87.2	10.8	56.8 - 134	30	
Chlorobenzene	1.8	10	ND	50.0	96.9	89.5	7.93	57.4 - 134	30	
(S) Dibromofluoromethane				50.0	97.0	89.4		59.8 - 148		
(S) Toluene-d8				50.0	106	90.9		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	88.5	79.9		55.8 - 141		

Work Order:	2011017	**Prep Method:**	5035	**Prep Date:**	11/05/20	**Prep Batch:**	1126800
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451926
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
MTBE	2.34	10.0		50.0	102	94.4	7.93	70 - 130	30	
Benzene	2.2	10		50.0	103	93.8	9.35	66.5 - 135	30	
Ethylbenzene	1.65	10.0		50.0	95.6	87.4	8.96	70 - 130	30	
Toluene	1.82	10		50.0	97.1	87.2	10.8	56.8 - 134	30	
m,p-Xylene	3.16	10.0		100	90.6	82.7	9.12	70 - 130	30	
o-Xylene	1.73	10.0		50.0	90.7	83.3	8.28	70 - 130	30	
(S) Dibromofluoromethane				50.0	97.0	89.4		59.8 - 148		
(S) Toluene-d8				50.0	106	90.9		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	88.5	79.9		55.8 - 141		

Work Order:	2011017	**Prep Method:**	5035GRO	**Prep Date:**	11/05/20	**Prep Batch:**	1126803
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	451926
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	43	100	ND	1000	118	111	6.11	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	108	110		43.9 - 127		

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011017	**Prep Method:**	5035	**Prep Date:**	11/05/20	**Prep Batch:**	1126817
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451935
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	2.0	10	ND	50.0	83.4	101	18.7	53.7 - 139	30	
Benzene	2.2	10	ND	50.0	88.2	109	20.7	66.5 - 135	30	
Trichloroethylene	1.8	10	ND	50.0	89.9	111	21.3	57.5 - 150	30	
Toluene	1.8	10	ND	50.0	91.6	113	20.7	56.8 - 134	30	
Chlorobenzene	1.8	10	ND	50.0	89.1	108	19.3	57.4 - 134	30	
(S) Dibromofluoromethane				50.0	106	117		59.8 - 148		
(S) Toluene-d8				50.0	102	117		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	99.2	113		55.8 - 141		

Work Order:	2011017	**Prep Method:**	5035	**Prep Date:**	11/05/20	**Prep Batch:**	1126817
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451935
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
MTBE	2.34	10.0		50.0	90.2	116	24.7	70 - 130	30	
Benzene	2.2	10		50.0	88.2	109	20.7	66.5 - 135	30	
Ethylbenzene	1.65	10.0		50.0	90.5	111	20.1	70 - 130	30	
Toluene	1.82	10		50.0	91.6	113	20.7	56.8 - 134	30	
m,p-Xylene	3.16	10.0		100	95.1	116	19.8	70 - 130	30	
o-Xylene	1.73	10.0		50.0	85.3	103	18.5	70 - 130	30	
(S) Dibromofluoromethane				50.0	106	117		59.8 - 148		
(S) Toluene-d8				50.0	102	117		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	99.2	113		55.8 - 141		

Work Order:	2011017	**Prep Method:**	5035GRO	**Prep Date:**	11/05/20	**Prep Batch:**	1126820
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	451935
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	43	100	ND	1000	85.4	81.6	4.55	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	109	93.7		43.9 - 127		

Torrent LABORATORY, INC.

MS/MSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011017	**Prep Method:**	3546_TPHSG	**Prep Date:**	11/04/20	**Prep Batch:**	1126773
Matrix:	**Soil**	**Analytical Method:**	SW8015B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	451947
Spiked Sample:	2011017-016A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	0.850	2.00	12.9	25.0	83.5	82.8	0.593	40 - 110	30	
Pentacosane (S)				200	109	108		40 - 129		

Work Order:	2011017	**Prep Method:**	5035	**Prep Date:**	11/05/20	**Prep Batch:**	1126800
Matrix:	**Soil**	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451926
Spiked Sample:	2011017-003A						
Units:	ug/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Benzene	2.23	10.0	ND	50	106	106	0.000	55 - 125	30	
Toluene	1.82	10.0	ND	50	90.3	93.8	3.91	55 - 125	30	
Ethylbenzene	1.65	10.0	ND	50	87.0	89.3	2.50	70 - 130	30	
m,p-Xylene	3.16	10.0	ND	100	82.5	87.2	5.54	70 - 130	30	
o-Xylene	1.73	10.0	ND	50	82.9	85.8	3.32	70 - 130	30	
MTBE	2.34	10.0	ND	50	108	110	2.57	70 - 130	30	
(S) Dibromofluoromethane				50	76.9	84.7		59.8 - 148		
(S) Toluene-d8				50	94.6	99.5		55.2 - 133		
(S) 4-Bromofluorobenzene				50	80.6	80.2		55.8 - 141		

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg/m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the analyte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: Engeo (San Ramon)

Project Name: Brindle Gate

Work Order No.: 2011017

Date and Time Received: 11/3/2020 10:30:00AM

Received By: Lorna Imbat

Physically Logged By: Lorna Imbat

Checklist Completed By: Lorna Imbat

Carrier Name: First Courier

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes			
Container/Temp Blank temperature in compliance?	Yes	Temperature:	2.0	°C
Water-VOA vials have zero headspace?	No VOA vials submitted			
Water-pH acceptable upon receipt?	N/A			

pH Checked by: N/A

pH Adjusted by: N/A

Comments:

Sample -014A labelled S-TF-3 @ 5' VSCOC S-TF-3 @10' @ 13:49

Torrent LABORATORY, INC.

Login Summary Report

Client ID:	TL5123	Engeo (San Ramon)	**QC Level:**	II
Project Name:	Brindle Gate		**TAT Requested:**	3 Day Std:3
Project # :	3359.210.001		**Date Received:**	11/3/2020
Report Due Date:	11/6/2020		**Time Received:**	10:30 am

Comments:

Work Order # : ***2011017***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2011017-001A	S-31-10-W@5'	11/02/20 11:00	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011017-002A	S-31-10-W@10'	11/02/20 11:05	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011017-003A	S-31-10-S@5'	11/02/20 11:12	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011017-004A	S-31-10-S@10'	11/02/20 11:00	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011017-005A	S-31-10-E@5'	11/02/20 11:21	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011017-006A	S-31-10-E@10'	11/02/20 11:24	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011017-007A	S-31-10-C@5'	11/02/20 12:37	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011017-008A	S-31-10-C@10'	11/02/20 12:39	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011017-009A	S-31-10-N@5'	11/02/20 12:43	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011017-010A	S-31-10-N@10'	11/02/20 12:45	Soil	05/01/21			TPHDOSG_S_8015B VOC_S_MBTEX VOC_S_GRO mg/Kg	
2011017-011A	S-TF-6@5'	11/02/20 13:36	Soil	05/01/21			TPHDOSG_S_8015B	

Torrent LABORATORY, INC.

Login Summary Report

Client ID:	TL5123	Engeo (San Ramon)	**QC Level:**	II
Project Name:	Brindle Gate		**TAT Requested:**	3 Day Std:3
Project # :	3359.210.001		**Date Received:**	11/3/2020
Report Due Date:	11/6/2020		**Time Received:**	10:30 am

Comments:

Work Order # : ***2011017***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2011017-012A	S-TF-6@10'	11/02/20 13:40	Soil	05/01/21			VOC_S_MBTEX VOC_S_GRO mg/Kg TPHDOSG_S_8015B	
2011017-013A	S-TF-3@5'	11/02/20 13:45	Soil	05/01/21			VOC_S_MBTEX VOC_S_GRO mg/Kg TPHDOSG_S_8015B	
2011017-014A	S-TF-3@10'	11/02/20 13:49	Soil	05/01/21			VOC_S_MBTEX VOC_S_GRO mg/Kg TPHDOSG_S_8015B	
2011017-015A	S-TF-2@5'	11/02/20 14:02	Soil	05/01/21			VOC_S_MBTEX VOC_S_GRO mg/Kg TPHDOSG_S_8015B	
2011017-016A	S-TF-2@10'	11/02/20 14:06	Soil	05/01/21			VOC_S_GRO mg/Kg VOC_S_MBTEX TPHDOSG_S_8015B	

Torrent LABORATORY, INC.

CHAIN OF CUSTODY RECORD

2011017

PROJECT NUMBER	PROJECT NAME
3359.210.001	Brindle Gate

SAMPLED BY: (SIGNATURE/PRINT) Taunee Werts

PROJECT MANAGER: (SIGNATURE/PRINT) Brooke Spruit

ROUTING: E-MAIL bspruit, twerts, smunger@engeo.com

SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	TPH-g	BTEX (8260)	MTBE	TPH-d/mo (8015 Silica cleanup)											REMARKS / REQUIRED DETECTION LIMITS
S-31-10-W@5'	11/2/20	11:00	soil	1	Sleeve	VIA	X	X	X	X										-001A	
@10'		11:05					X	X	X	X										-002A	
S-31-10-S@5'		11:12					X	X	X	X	X									-003A	
@10'		11:19					X	X	X	X										-004A	
S-31-10-E@5'		11:21					X	X	X	X										-005A	
@10'		11:24					X	X	X	X										-006A	
S-31-10-C@5'		12:37					X	X	X	X										-007A	
@10'		12:39					X	X	X	X										-008A	
S-31-10-N@5'		12:43					X	X	X	X										-009A	
@10'		12:45					X	X	X	X										-010A	
S-TF-6@5'		13:30					X	X	X	X										-011A	
@10'		13:40					X	X	X	X										-012A	
S-TF-3@5'		13:45					X	X	X	X										-013A	
@10'		13:49					X	X	X	X										-014A	
S-TF-2@5		14:02					X	X	X	X										-015A	
@10'		14:06					X	X	X	X										-016A	

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
	11/2/20 07:00				
	11/2/20 19:12			11/3	
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE/TIME	REMARKS	
				Standard TAT pg 2 of 2	

DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT; COPY TO PROJECT FIELD FILES

FC

ENGEO INCORPORATED

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WWW.ENGEO.COM

Engeo (San Ramon)
2010 Crow Canyon Place,#250
San Ramon, California 94583
Tel: (925) 866-9000
Fax: (925) 866-0199

RE: Brindle Gate

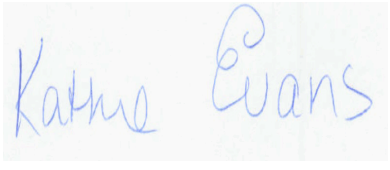
Work Order No.: 2011036 Rev: 1

Dear Brooke Spruit:

Torrent Laboratory, Inc. received 20 sample(s) on November 04, 2020 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.



Kathie Evans
Project Manager

November 09, 2020
Date

Date: 11/9/2020

Client: Engeo (San Ramon)

Project: Brindle Gate

Work Order: 2011036

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

Analytical Comments for method 8015B, 2011036-015A MS/MSD, QC Preparation Batch ID 1126810, Note:The % recoveries for TPH Diesel are outside of laboratory control limits but % RPD is within limits. The associated LCS/LCSD is within both % Recovery and %RPD limits. No corrective action required.

REVISIONS

Report revised to correct the sample ID for sample 008

Rev. 1 (12/2/20)

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date Received: 11/04/20
Date Reported: 11/09/20

S-TF-1@5' 2011036-001

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	10.5	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	17.2	mg/Kg

S-TF-1@10' 2011036-002

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	2.91	mg/Kg

S-TF-4@5' 2011036-003

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	9.34	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	16.4	mg/Kg

S-TF-4@10' 2011036-004

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	2.87	mg/Kg

S-TF-7@5' 2011036-005

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	4	3.4	8.0	65.2	mg/Kg
TPH as Motor Oil (SG)	SW8015B	4	13	40	184	mg/Kg

S-TF-7@10' 2011036-006

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	20	17	40	192	mg/Kg
TPH as Motor Oil (SG)	SW8015B	20	64	200	277	mg/Kg

S-TF-10@5' 2011036-007

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	3	2.6	6.0	53.5	mg/Kg
TPH as Motor Oil (SG)	SW8015B	3	9.5	30	138	mg/Kg

S-TF-10@10' 2011036-008

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	3	2.6	6.0	66.2	mg/Kg
TPH as Motor Oil (SG)	SW8015B	3	9.5	30	92.3	mg/Kg

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date Received: 11/04/20
Date Reported: 11/09/20

S-TF-11@5' 2011036-009

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	10	8.5	20	99.9	mg/Kg
TPH as Motor Oil (SG)	SW8015B	10	32	100	291	mg/Kg

S-TF-11@10' 2011036-010

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	10	8.5	20	177	mg/Kg
TPH as Motor Oil (SG)	SW8015B	10	32	100	202	mg/Kg

S-TF-12@5' 2011036-011

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	10.2	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	18.9	mg/Kg

S-TF-12@10' 2011036-012

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-TF-8@5' 2011036-013

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	10	8.5	20	109	mg/Kg
TPH as Motor Oil (SG)	SW8015B	10	32	100	286	mg/Kg

S-TF-8@10' 2011036-014

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	10	8.5	20	176	mg/Kg
TPH as Motor Oil (SG)	SW8015B	10	32	100	269	mg/Kg

S-TF-9@5' 2011036-015

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	17.8	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	54.3	mg/Kg

S-TF-9@10' 2011036-016

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	5	4.3	10	85.4	mg/Kg
TPH as Motor Oil (SG)	SW8015B	5	16	50	135	mg/Kg

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date Received: 11/04/20
Date Reported: 11/09/20

S-TF-5@5' 2011036-017

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	16.6	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	58.9	mg/Kg

S-TF-5@10' 2011036-018

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	8.74	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	17.2	mg/Kg

S-36-10-E@5' 2011036-019

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	10	8.5	20	96.5	mg/Kg
TPH as Motor Oil (SG)	SW8015B	10	32	100	387	mg/Kg

S-36-10-E@10' 2011036-020

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	19.4	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	61.1	mg/Kg

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-1@5'	**Lab Sample ID:**	2011036-001A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 7:36		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**10.5**	x	mg/Kg	11/06/20	20:23	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**17.2**		mg/Kg	11/06/20	20:23	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**80.3**		%	11/06/20	20:23	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel and presence of discrete peaks.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126872 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/06/20	12:27	AD	452004
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/06/20	12:27	AD	452004
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/06/20	12:27	AD	452004
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	12:27	AD	452004
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/06/20	12:27	AD	452004
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	12:27	AD	452004
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**132**		%	11/06/20	12:27	AD	452004
(S) Toluene-d8	SW8260B		55.2 - 133		**119**		%	11/06/20	12:27	AD	452004
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**114**		%	11/06/20	12:27	AD	452004

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126873 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/06/20	12:27	AD	452004
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**62.1**		%	11/06/20	12:27	AD	452004

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-1@10'	**Lab Sample ID:**	2011036-002A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 7:40		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**2.91**	x	mg/Kg	11/06/20	20:46	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/06/20	20:46	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**80.0**		%	11/06/20	20:46	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel and presence of discrete peaks.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126872 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/06/20	14:23	AD	452004
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/06/20	14:23	AD	452004
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/06/20	14:23	AD	452004
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	14:23	AD	452004
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/06/20	14:23	AD	452004
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	14:23	AD	452004
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**147**		%	11/06/20	14:23	AD	452004
(S) Toluene-d8	SW8260B		55.2 - 133		**118**		%	11/06/20	14:23	AD	452004
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**118**		%	11/06/20	14:23	AD	452004

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126873 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/06/20	14:23	AD	452004
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**61.6**		%	11/06/20	14:23	AD	452004

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-4@5'	**Lab Sample ID:**	2011036-003A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 7:45		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**9.34**	x	mg/Kg	11/06/20	21:10	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**16.4**		mg/Kg	11/06/20	21:10	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**76.2**		%	11/06/20	21:10	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel and presence of discrete peaks.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126872 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/06/20	14:51	AD	452004
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/06/20	14:51	AD	452004
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/06/20	14:51	AD	452004
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	14:51	AD	452004
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/06/20	14:51	AD	452004
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	14:51	AD	452004
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**141**		%	11/06/20	14:51	AD	452004
(S) Toluene-d8	SW8260B		55.2 - 133		**119**		%	11/06/20	14:51	AD	452004
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**113**		%	11/06/20	14:51	AD	452004

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126873 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/06/20	14:51	AD	452004
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**61.9**		%	11/06/20	14:51	AD	452004

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-4@10'	**Lab Sample ID:**	2011036-004A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 7:49		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**2.87**	x	mg/Kg	11/06/20	21:33	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/06/20	21:33	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**77.0**		%	11/06/20	21:33	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel and presence of discrete peaks.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126872 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/06/20	15:20	AD	452004
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/06/20	15:20	AD	452004
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/06/20	15:20	AD	452004
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	15:20	AD	452004
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/06/20	15:20	AD	452004
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	15:20	AD	452004
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**144**		%	11/06/20	15:20	AD	452004
(S) Toluene-d8	SW8260B		55.2 - 133		**117**		%	11/06/20	15:20	AD	452004
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**113**		%	11/06/20	15:20	AD	452004

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126873 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/06/20	15:20	AD	452004
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**59.5**		%	11/06/20	15:20	AD	452004

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-7@5'	**Lab Sample ID:**	2011036-005A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 7:56		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	4	3.4	8.0	**65.2**	x	mg/Kg	11/07/20	14:40	SN	451988
TPH as Motor Oil (SG)	SW8015B	4	13	40	**184**		mg/Kg	11/07/20	14:40	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**77.4**		%	11/07/20	14:40	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126872 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/06/20	15:49	AD	452004
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/06/20	15:49	AD	452004
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/06/20	15:49	AD	452004
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	15:49	AD	452004
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/06/20	15:49	AD	452004
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	15:49	AD	452004
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**148**		%	11/06/20	15:49	AD	452004
(S) Toluene-d8	SW8260B		55.2 - 133		**121**		%	11/06/20	15:49	AD	452004
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**122**		%	11/06/20	15:49	AD	452004

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126873 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/06/20	15:49	AD	452004
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**52.0**		%	11/06/20	15:49	AD	452004

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-7@10'	**Lab Sample ID:**	2011036-006A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 8:00		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	20	17	40	**192**	x	mg/Kg	11/07/20	15:04	SN	451988
TPH as Motor Oil (SG)	SW8015B	20	64	200	**277**		mg/Kg	11/07/20	15:04	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**0.000**	D	%	11/07/20	15:04	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126872 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/06/20	16:17	AD	452004
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/06/20	16:17	AD	452004
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/06/20	16:17	AD	452004
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	16:17	AD	452004
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/06/20	16:17	AD	452004
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	16:17	AD	452004
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**150**	S	%	11/06/20	16:17	AD	452004
(S) Toluene-d8	SW8260B		55.2 - 133		**124**		%	11/06/20	16:17	AD	452004
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**121**		%	11/06/20	16:17	AD	452004

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126873 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/06/20	16:17	AD	452004
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**47.0**		%	11/06/20	16:17	AD	452004

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-10@5'	**Lab Sample ID:**	2011036-007A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 8:11		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	3	2.6	6.0	**53.5**	x	mg/Kg	11/07/20	15:27	SN	451988
TPH as Motor Oil (SG)	SW8015B	3	9.5	30	**138**		mg/Kg	11/07/20	15:27	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**70.2**		%	11/07/20	15:27	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126872 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/06/20	16:46	AD	452004
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/06/20	16:46	AD	452004
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/06/20	16:46	AD	452004
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	16:46	AD	452004
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/06/20	16:46	AD	452004
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	16:46	AD	452004
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**131**		%	11/06/20	16:46	AD	452004
(S) Toluene-d8	SW8260B		55.2 - 133		**125**		%	11/06/20	16:46	AD	452004
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**121**		%	11/06/20	16:46	AD	452004

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126873 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/06/20	16:46	AD	452004
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**46.0**		%	11/06/20	16:46	AD	452004

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-10@10'	**Lab Sample ID:**	2011036-008A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 8:15		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	3	2.6	6.0	**66.2**	x	mg/Kg	11/07/20	15:51	SN	451988
TPH as Motor Oil (SG)	SW8015B	3	9.5	30	**92.3**		mg/Kg	11/07/20	15:51	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**68.6**		%	11/07/20	15:51	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126872 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/06/20	17:15	AD	452004
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/06/20	17:15	AD	452004
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/06/20	17:15	AD	452004
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	17:15	AD	452004
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/06/20	17:15	AD	452004
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	17:15	AD	452004
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**141**		%	11/06/20	17:15	AD	452004
(S) Toluene-d8	SW8260B		55.2 - 133		**116**		%	11/06/20	17:15	AD	452004
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**110**		%	11/06/20	17:15	AD	452004

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126873 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/06/20	17:15	AD	452004
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**45.2**		%	11/06/20	17:15	AD	452004

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-11@5'	**Lab Sample ID:**	2011036-009A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 8:25		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	10	8.5	20	**99.9**	x	mg/Kg	11/07/20	16:14	SN	451988
TPH as Motor Oil (SG)	SW8015B	10	32	100	**291**		mg/Kg	11/07/20	16:14	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**86.0**		%	11/07/20	16:14	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	3:29	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	3:29	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	3:29	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	3:29	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	3:29	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	3:29	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**159**	S	%	11/07/20	3:29	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**119**		%	11/07/20	3:29	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**131**		%	11/07/20	3:29	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	3:29	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**32.9**	S	%	11/07/20	3:29	AD	452010

NOTE: S - Low surrogate recovery; analyzed twice with a similar result indicating a matrix effect.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-11@10'	**Lab Sample ID:**	2011036-010A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 8:26		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	10	8.5	20	**177**	x	mg/Kg	11/07/20	16:37	SN	451988
TPH as Motor Oil (SG)	SW8015B	10	32	100	**202**		mg/Kg	11/07/20	16:37	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**73.4**		%	11/07/20	16:37	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	3:58	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	3:58	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	3:58	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	3:58	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	3:58	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	3:58	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**160**	S	%	11/07/20	3:58	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**121**		%	11/07/20	3:58	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**130**		%	11/07/20	3:58	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	3:58	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**34.5**	S	%	11/07/20	3:58	AD	452010

NOTE: S - Low surrogate recovery; analyzed twice with a similar result indicating a matrix effect.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-12@5'	**Lab Sample ID:**	2011036-011A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 8:33		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**10.2**	x	mg/Kg	11/07/20	1:03	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**18.9**		mg/Kg	11/07/20	1:03	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**73.6**		%	11/07/20	1:03	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel and presence of discrete peaks.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	4:27	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	4:27	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	4:27	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	4:27	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	4:27	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	4:27	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**158**	S	%	11/07/20	4:27	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**114**		%	11/07/20	4:27	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**116**		%	11/07/20	4:27	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	4:27	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**45.6**		%	11/07/20	4:27	AD	452010

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-12@10'	**Lab Sample ID:**	2011036-012A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 8:38		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/07/20	1:26	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/07/20	1:26	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**64.2**		%	11/07/20	1:26	SN	451988

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	4:57	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	4:57	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	4:57	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	4:57	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	4:57	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	4:57	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**141**		%	11/07/20	4:57	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**105**		%	11/07/20	4:57	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**104**		%	11/07/20	4:57	AD	452010

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	4:57	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**51.3**		%	11/07/20	4:57	AD	452010

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-8@5'	**Lab Sample ID:**	2011036-013A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 8:58		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	10	8.5	20	**109**	x	mg/Kg	11/07/20	17:01	SN	451988
TPH as Motor Oil (SG)	SW8015B	10	32	100	**286**		mg/Kg	11/07/20	17:01	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**87.0**		%	11/07/20	17:01	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	5:26	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	5:26	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	5:26	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	5:26	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	5:26	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	5:26	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**159**	S	%	11/07/20	5:26	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**118**		%	11/07/20	5:26	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**125**		%	11/07/20	5:26	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	5:26	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**43.8**	S	%	11/07/20	5:26	AD	452010

NOTE: S - Low surrogate recovery; analyzed twice with a similar result indicating a matrix effect.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-8@10'	**Lab Sample ID:**	2011036-014A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 9:01		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	10	8.5	20	**176**	x	mg/Kg	11/07/20	17:24	SN	451988
TPH as Motor Oil (SG)	SW8015B	10	32	100	**269**		mg/Kg	11/07/20	17:24	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**75.0**		%	11/07/20	17:24	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	5:55	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	5:55	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	5:55	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	5:55	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	5:55	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	5:55	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**159**	S	%	11/07/20	5:55	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**128**		%	11/07/20	5:55	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**125**		%	11/07/20	5:55	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	5:55	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**37.0**	S	%	11/07/20	5:55	AD	452010

NOTE: S - Low surrogate recovery; analyzed twice with a similar result indicating a matrix effect.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-9@5'	**Lab Sample ID:**	2011036-015A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 9:06		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**17.8**	x	mg/Kg	11/07/20	2:36	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**54.3**		mg/Kg	11/07/20	2:36	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**78.1**		%	11/07/20	2:36	SN	451988

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	6:24	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	6:24	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	6:24	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	6:24	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	6:24	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	6:24	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**168**	S	%	11/07/20	6:24	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**119**		%	11/07/20	6:24	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**129**		%	11/07/20	6:24	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	6:24	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**37.2**	S	%	11/07/20	6:24	AD	452010

NOTE: S - Low surrogate recovery; analyzed twice with a similar result indicating a matrix effect.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-9@10'	**Lab Sample ID:**	2011036-016A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 9:08		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	5	4.3	10	**85.4**	x	mg/Kg	11/07/20	17:48	SN	451988
TPH as Motor Oil (SG)	SW8015B	5	16	50	**135**		mg/Kg	11/07/20	17:48	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**77.5**		%	11/07/20	17:48	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	6:53	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	6:53	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	6:53	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	6:53	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	6:53	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	6:53	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**155**	S	%	11/07/20	6:53	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**128**		%	11/07/20	6:53	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**135**		%	11/07/20	6:53	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	6:53	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**47.6**		%	11/07/20	6:53	AD	452010

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-5@5'	**Lab Sample ID:**	2011036-017A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 9:11		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**16.6**	x	mg/Kg	11/07/20	3:23	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**58.9**		mg/Kg	11/07/20	3:23	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**84.0**		%	11/07/20	3:23	SN	451988

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	7:22	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	7:22	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	7:22	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	7:22	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	7:22	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	7:22	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**148**		%	11/07/20	7:22	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**116**		%	11/07/20	7:22	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**120**		%	11/07/20	7:22	AD	452010

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	7:22	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**50.4**		%	11/07/20	7:22	AD	452010

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-5@10'	**Lab Sample ID:**	2011036-018A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 9:14		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**8.74**	x	mg/Kg	11/07/20	3:46	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**17.2**		mg/Kg	11/07/20	3:46	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**73.1**		%	11/07/20	3:46	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel and presence of discrete peaks.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	7:51	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	7:51	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	7:51	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	7:51	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	7:51	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	7:51	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**156**	S	%	11/07/20	7:51	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**117**		%	11/07/20	7:51	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**119**		%	11/07/20	7:51	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	7:51	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**49.9**		%	11/07/20	7:51	AD	452010

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-36-10-E@5'	**Lab Sample ID:**	2011036-019A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 11:14		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	10	8.5	20	**96.5**	x	mg/Kg	11/07/20	18:11	SN	451988
TPH as Motor Oil (SG)	SW8015B	10	32	100	**387**		mg/Kg	11/07/20	18:11	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**76.1**		%	11/07/20	18:11	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	8:20	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	8:20	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	8:20	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	8:20	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	8:20	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	8:20	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**165**	S	%	11/07/20	8:20	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**124**		%	11/07/20	8:20	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**139**		%	11/07/20	8:20	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	8:20	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**41.6**	S	%	11/07/20	8:20	AD	452010

NOTE: S - Low surrogate recovery; analyzed twice with a similar result indicating a matrix effect.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-36-10-E@10'	**Lab Sample ID:**	2011036-020A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 11:18		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**19.4**	x	mg/Kg	11/07/20	4:33	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**61.1**		mg/Kg	11/07/20	4:33	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**71.1**		%	11/07/20	4:33	SN	451988

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	8:50	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	8:50	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	8:50	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	8:50	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	8:50	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	8:50	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**153**	S	%	11/07/20	8:50	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**113**		%	11/07/20	8:50	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**114**		%	11/07/20	8:50	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	8:50	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**52.8**		%	11/07/20	8:50	AD	452010

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011036	**Prep Method:**	3546_TPHSG	**Prep Date:**	11/05/20	**Prep Batch:**	1126810
Matrix:	Soil	**Analytical Method:**	SW8015B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	451988
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Diesel (SG)	0.85	2.0	0.895	
TPH as Motor Oil (SG)	3.2	10	ND	
Pentacosane (S)			93.5	

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126872
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452004
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	1.2	10	1.6	
Chloromethane	1.8	10	ND	
Vinyl Chloride	2.0	10	ND	
Bromomethane	2.7	10	ND	
Chloroethane	3.0	10	ND	
Trichlorofluoromethane	2.1	10	ND	
1,1-Dichloroethene	2.0	10	ND	
Freon 113	1.9	10	ND	
Methylene Chloride	7.1	10	ND	
trans-1,2-Dichloroethene	2.1	10	ND	
MTBE	2.3	10	ND	
TBA	12	50	14	
Diisopropyl ether	2.3	10	ND	
1,1-Dichloroethane	2.2	10	ND	
Ethyl tert-Butyl ether	2.3	10	ND	
cis-1,2-Dichloroethene	2.2	10	ND	
2,2-Dichloropropane	1.9	10	ND	
Bromochloromethane	2.3	10	ND	
Chloroform	2.4	10	ND	
Carbon Tetrachloride	2.1	10	ND	
1,1,1-Trichloroethane	2.1	10	ND	
1,1-Dichloropropene	2.0	10	ND	
Benzene	2.2	10	ND	
TAME	2.3	10	ND	
1,2-Dichloroethane	2.3	10	ND	
Trichloroethylene	1.8	10	ND	
Dibromomethane	1.8	10	ND	
1,2-Dichloropropane	1.9	10	ND	
Bromodichloromethane	2.0	10	ND	
cis-1,3-Dichloropropene	1.6	10	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126872
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452004
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Toluene	1.8	10	ND	
Tetrachloroethylene	1.7	10	ND	
trans-1,3-Dichloropropene	1.6	10	ND	
1,1,2-Trichloroethane	1.8	10	ND	
Dibromochloromethane	1.9	10	ND	
1,3-Dichloropropane	1.8	10	ND	
1,2-Dibromoethane	1.8	10	ND	
Chlorobenzene	1.8	10	ND	
Ethylbenzene	1.7	10	ND	
1,1,1,2-Tetrachloroethane	1.9	10	ND	
m,p-Xylene	3.2	10	ND	
o-Xylene	1.7	10	ND	
Styrene	1.6	10	ND	
Bromoform	1.7	10	ND	
Isopropyl Benzene	1.6	10	ND	
n-Propylbenzene	1.6	10	ND	
Bromobenzene	1.8	10	ND	
1,1,2,2-Tetrachloroethane	1.9	10	ND	
2-Chlorotoluene	1.8	10	ND	
1,3,5-Trimethylbenzene	1.6	10	ND	
1,2,3-Trichloropropane	1.9	10	ND	
4-Chlorotoluene	1.6	10	ND	
tert-Butylbenzene	1.6	10	ND	
1,2,4-Trimethylbenzene	1.4	10	ND	
sec-Butyl Benzene	1.6	10	1.6	
p-Isopropyltoluene	1.5	10	ND	
1,3-Dichlorobenzene	1.7	10	ND	
1,4-Dichlorobenzene	1.7	10	ND	
n-Butylbenzene	1.5	10	ND	
1,2-Dichlorobenzene	1.8	10	ND	
1,2-Dibromo-3-Chloropropane	1.8	10	ND	
Hexachlorobutadiene	1.4	10	ND	
1,2,4-Trichlorobenzene	1.5	10	ND	
Naphthalene	1.7	10	5.7	
1,2,3-Trichlorobenzene	1.7	10	1.7	
2-Butanone	2.3	10	ND	
4-Methyl-2-Pentanone (MIBK)	2.0	50	ND	
Hexachloroethane	5.0	10	ND	
1,4-Dioxane	100	200	ND	
2-Hexanone	5.0	20	ND	
Acetone	8.2	20	ND	
(S) Dibromofluoromethane			132	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126872
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452004
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
(S) Toluene-d8			115	
(S) 4-Bromofluorobenzene			110	

Work Order:	2011036	**Prep Method:**	5035GRO	**Prep Date:**	11/06/20	**Prep Batch:**	1126873
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452004
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Gasoline	43	100	43	
(S) 4-Bromofluorobenzene			56.2	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126889
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452010
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	1.2	10	ND	
Chloromethane	1.8	10	ND	
Vinyl Chloride	2.0	10	ND	
Bromomethane	2.7	10	ND	
Chloroethane	3.0	10	ND	
Trichlorofluoromethane	2.1	10	ND	
1,1-Dichloroethene	2.0	10	ND	
Freon 113	1.9	10	ND	
Methylene Chloride	7.1	10	ND	
trans-1,2-Dichloroethene	2.1	10	ND	
MTBE	2.3	10	ND	
TBA	12	50	ND	
Diisopropyl ether	2.3	10	ND	
1,1-Dichloroethane	2.2	10	ND	
Ethyl tert-Butyl ether	2.3	10	ND	
cis-1,2-Dichloroethene	2.2	10	ND	
2,2-Dichloropropane	1.9	10	ND	
Bromochloromethane	2.3	10	ND	
Chloroform	2.4	10	ND	
Carbon Tetrachloride	2.1	10	ND	
1,1,1-Trichloroethane	2.1	10	ND	
1,1-Dichloropropene	2.0	10	ND	
Benzene	2.2	10	ND	
TAME	2.3	10	ND	
1,2-Dichloroethane	2.3	10	ND	
Trichloroethylene	1.8	10	ND	
Dibromomethane	1.8	10	ND	
1,2-Dichloropropane	1.9	10	ND	
Bromodichloromethane	2.0	10	ND	
cis-1,3-Dichloropropene	1.6	10	ND	
Toluene	1.8	10	ND	
Tetrachloroethylene	1.7	10	ND	
trans-1,3-Dichloropropene	1.6	10	ND	
1,1,2-Trichloroethane	1.8	10	ND	
Dibromochloromethane	1.9	10	ND	
1,3-Dichloropropane	1.8	10	ND	
1,2-Dibromoethane	1.8	10	ND	
Chlorobenzene	1.8	10	ND	
Ethylbenzene	1.7	10	ND	
1,1,1,2-Tetrachloroethane	1.9	10	ND	
m,p-Xylene	3.2	10	ND	
o-Xylene	1.7	10	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126889
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452010
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Styrene	1.6	10	ND	
Bromoform	1.7	10	ND	
Isopropyl Benzene	1.6	10	ND	
n-Propylbenzene	1.6	10	ND	
Bromobenzene	1.8	10	ND	
1,1,2,2-Tetrachloroethane	1.9	10	ND	
2-Chlorotoluene	1.8	10	ND	
1,3,5-Trimethylbenzene	1.6	10	2.3	
1,2,3-Trichloropropane	1.9	10	ND	
4-Chlorotoluene	1.6	10	ND	
tert-Butylbenzene	1.6	10	1.8	
1,2,4-Trimethylbenzene	1.4	10	2.3	
sec-Butyl Benzene	1.6	10	ND	
p-Isopropyltoluene	1.5	10	3.1	
1,3-Dichlorobenzene	1.7	10	ND	
1,4-Dichlorobenzene	1.7	10	ND	
n-Butylbenzene	1.5	10	1.6	
1,2-Dichlorobenzene	1.8	10	ND	
1,2-Dibromo-3-Chloropropane	1.8	10	ND	
Hexachlorobutadiene	1.4	10	ND	
1,2,4-Trichlorobenzene	1.5	10	7.5	
Naphthalene	1.7	10	5.3	
1,2,3-Trichlorobenzene	1.7	10	1.7	
2-Butanone	2.3	10	3.7	
4-Methyl-2-Pentanone (MIBK)	2.0	50	5.2	
Hexachloroethane	5.0	10	ND	
1,4-Dioxane	100	200	ND	
2-Hexanone	5.0	20	ND	
Acetone	8.2	20	ND	
(S) Dibromofluoromethane			137	
(S) Toluene-d8			118	
(S) 4-Bromofluorobenzene			112	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011036	**Prep Method:**	5035GRO	**Prep Date:**	11/06/20	**Prep Batch:**	1126890
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452010
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
TPH as Gasoline	43	100	ND		
(S) 4-Bromofluorobenzene			67.1		

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011036	**Prep Method:**	3546_TPHSG	**Prep Date:**	11/05/20	**Prep Batch:**	1126810
Matrix:	Soil	**Analytical Method:**	SW8015B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	451988
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	0.85	2.0	0.895	25.0	73.5	79.0	6.82	40 - 110	30	
Pentacosane (S)			ND	200	106	105		40 - 129		

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126872
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452004
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	2.0	10	1.6	50.0	82.2	85.7	4.29	53.7 - 139	30	
Benzene	2.2	10	ND	50.0	90.5	95.5	5.59	66.5 - 135	30	
Trichloroethylene	1.8	10	ND	50.0	94.3	97.8	3.75	57.5 - 150	30	
Toluene	1.8	10	ND	50.0	96.2	104	7.41	56.8 - 134	30	
Chlorobenzene	1.8	10	ND	50.0	92.3	98.0	6.10	57.4 - 134	30	
(S) Dibromofluoromethane				50.0	95.8	98.5		59.8 - 148		
(S) Toluene-d8				50.0	96.1	102		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	90.1	100		55.8 - 141		

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126872
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452004
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
MTBE	2.34	10.0		50.0	93.3	98.1	5.22	70 - 130	30	
Benzene	2.2	10		50.0	90.5	95.5	5.59	66.5 - 135	30	
Ethylbenzene	1.65	10.0		50.0	96.7	102	5.23	70 - 130	30	
Toluene	1.82	10		50.0	96.2	104	7.41	56.8 - 134	30	
m,p-Xylene	3.16	10.0		100	102	108	5.71	70 - 130	30	
o-Xylene	1.73	10.0		50.0	89.3	90.8	1.78	70 - 130	30	
(S) Dibromofluoromethane				50.0	95.8	98.5		59.8 - 148		
(S) Toluene-d8				50.0	96.1	102		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	90.1	100		55.8 - 141		

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011036	**Prep Method:**	5035GRO	**Prep Date:**	11/06/20	**Prep Batch:**	1126873
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452004
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	43	100	43	1000	86.5	87.1	0.691	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	84.7	81.0		43.9 - 127		

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126889
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/7/2020	**Analytical Batch:**	452010
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
MTBE	2.34	10.0	ND	50.0	101	102	0.592	70 - 130	30	
Benzene	2.2	10	ND	50.0	98.1	101	2.41	66.5 - 135	30	
Ethylbenzene	1.65	10.0	ND	50.0	104	106	2.10	70 - 130	30	
Toluene	1.82	10	ND	50.0	106	106	0.188	56.8 - 134	30	
m,p-Xylene	3.16	10.0	ND	100	109	111	1.82	70 - 130	30	
o-Xylene	1.73	10.0	ND	50.0	94.2	96.8	2.72	70 - 130	30	
(S) Dibromofluoromethane				50.0	99.1	102		59.8 - 148		
(S) Toluene-d8				50.0	101	104		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	99.2	104		55.8 - 141		

Work Order:	2011036	**Prep Method:**	5035GRO	**Prep Date:**	11/06/20	**Prep Batch:**	1126890
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/7/2020	**Analytical Batch:**	452010
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	43	100	ND	1000	85.0	83.7	1.54	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	80.7	84.9		43.9 - 127		

Torrent LABORATORY, INC.

MS/MSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011036	**Prep Method:**	3546_TPHSG	**Prep Date:**	11/05/20	**Prep Batch:**	1126810
Matrix:	**Soil**	**Analytical Method:**	SW8015B	**Analyzed Date:**	11/7/2020	**Analytical Batch:**	451988
Spiked Sample:	2011036-015A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	0.850	2.00	17.8	25.0	193	178	6.08	40 - 110	30	S
Pentacosane (S)				200	91.7	92.7		40 - 129		

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126872
Matrix:	**Soil**	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452004
Spiked Sample:	2011036-008A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.0020	0.010	ND	0.05	98.7	99.3	0.605	55 - 125	30	
Benzene	0.0022	0.010	ND	0.05	108	110	2.02	55 - 125	30	
Trichloroethylene	0.0018	0.010	ND	0.05	109	112	3.31	55 - 125	30	
Toluene	0.0018	0.010	ND	0.05	110	111	1.09	55 - 125	30	
Chlorobenzene	0.0018	0.010	ND	0.05	105	105	0.381	55 - 125	30	
(S) Dibromofluoromethane				50	115	114		59.8 - 148		
(S) Toluene-d8				50	106	106		55.2 - 133		
(S) 4-Bromofluorobenzene				50	102	104		55.8 - 141		

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126889
Matrix:	**Soil**	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/7/2020	**Analytical Batch:**	452010
Spiked Sample:	2011036-012A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.0020	0.010	ND	0.05	102	101	1.38	55 - 125	30	
Benzene	0.0022	0.010	ND	0.05	114	110	3.21	55 - 125	30	
Trichloroethylene	0.0018	0.010	ND	0.05	107	104	2.09	55 - 125	30	
Toluene	0.0018	0.010	ND	0.05	105	106	0.946	55 - 125	30	
Chlorobenzene	0.0018	0.010	ND	0.05	101	99.6	1.40	55 - 125	30	
(S) Dibromofluoromethane				50	119	115		59.8 - 148		
(S) Toluene-d8				50	101	101		55.2 - 133		
(S) 4-Bromofluorobenzene				50	97.7	98.3		55.8 - 141		

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg/m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the analyte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: Engeo (San Ramon)

Project Name: Brindle Gate

Work Order No.: 2011036

Date and Time Received: 11/4/2020 1:15:00PM

Received By: Lorna Imbat

Physically Logged By: Lorna Imbat

Checklist Completed By: Lorna Imbat

Carrier Name: Client Drop Off

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes			
Container/Temp Blank temperature in compliance?	Yes	Temperature:	2.0	°C
Water-VOA vials have zero headspace?	No VOA vials submitted			
Water-pH acceptable upon receipt?	N/A			

pH Checked by: n/a

pH Adjusted by: n/a

Comments:

Sample -10A labelled S-TF-11 @ 5' VS COC S-TF-11 @ 10' @ 8:26AM

Torrent LABORATORY, INC.

Login Summary Report

Client ID: TL5123 Engeo (San Ramon)
Project Name: Brindle Gate
Project # : 3359.210.001
Report Due Date: 11/9/2020

QC Level: II
TAT Requested: 3 Day Std:3
Date Received: 11/4/2020
Time Received: 1:15 pm

Comments:

Work Order # : ***2011036***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2011036-001A	S-TF-1@5'	11/03/20 7:36	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
Sample Note:	MBTEX for 8260							
2011036-002A	S-TF-1@10'	11/03/20 7:40	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011036-003A	S-TF-4@5'	11/03/20 7:45	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011036-004A	S-TF-4@10'	11/03/20 7:49	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011036-005A	S-TF-7@5'	11/03/20 7:56	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011036-006A	S-TF-7@10'	11/03/20 8:00	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011036-007A	S-TF-10@5'	11/03/20 8:11	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011036-008A	S-TF-10@10'	11/03/20 8:15	Soil	05/02/21			TPHDOSG_S_8015B	

Torrent LABORATORY, INC.

Login Summary Report

Client ID: TL5123 Engeo (San Ramon)
Project Name: Brindle Gate
Project # : 3359.210.001
Report Due Date: 11/9/2020

QC Level: II
TAT Requested: 3 Day Std:3
Date Received: 11/4/2020
Time Received: 1:15 pm

Comments:

Work Order # : ***2011036***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2011036-009A	S-TF-11@5'	11/03/20 8:25	Soil	05/02/21			VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg TPHDOSG_S_8015B	
2011036-010A	S-TF-11@10'	11/03/20 8:26	Soil	05/02/21			VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg TPHDOSG_S_8015B	
2011036-011A	S-TF-12@5'	11/03/20 8:33	Soil	05/02/21			VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg TPHDOSG_S_8015B	
2011036-012A	S-TF-12@10'	11/03/20 8:38	Soil	05/02/21			VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg TPHDOSG_S_8015B	
2011036-013A	S-TF-8@5'	11/03/20 8:58	Soil	05/02/21			VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg TPHDOSG_S_8015B	
2011036-014A	S-TF-8@10'	11/03/20 9:01	Soil	05/02/21			VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg TPHDOSG_S_8015B	
2011036-015A	S-TF-9@5'	11/03/20 9:06	Soil	05/02/21			VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg TPHDOSG_S_8015B	
2011036-016A	S-TF-9@10'	11/03/20 9:08	Soil	05/02/21			VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	

Torrent LABORATORY, INC.

Login Summary Report

Client ID: TL5123 Engeo (San Ramon)
Project Name: Brindle Gate
Project # : 3359.210.001
Report Due Date: 11/9/2020

QC Level: II
TAT Requested: 3 Day Std:3
Date Received: 11/4/2020
Time Received: 1:15 pm

Comments:

Work Order # : ***2011036***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2011036-017A	S-TF-5@5'	11/03/20 9:11	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
2011036-018A	S-TF-5@10'	11/03/20 9:14	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011036-019A	S-36-10-E@5'	11/03/20 11:14	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
2011036-020A	S-36-10-E@10'	11/03/20 11:18	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	

Torrent LABORATORY, INC.

2011036

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
3359.210.001	Brindle Gate

SAMPLED BY: (SIGNATURE/PRINT) Taunee Werts

PROJECT MANAGER: (SIGNATURE/PRINT) Brooke Spruit

ROUTING: E-MAIL Bspruit, twerts, smunger@engeo.com

SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	TPH-g	BTEX (8260)	MTBE	TPH-d/mo wt (Si. cleanup)													REMARKS / REQUIRED DETECTION LIMITS
S-TF-1@5'	11/3/20	07:30	Soil	1	sleeve	N/A	X	X	X	X			-001A										
↓ @10'		07:40					X	X	X	X			-002A										
S-TF-4@5'		07:45					X	X	X	X			-003A										
↓ @10'		07:49					X	X	X	X			-004A										
S-TF-7@5'		07:56					X	X	X	X			-005A										
↓ @10'		08:00					X	X	X	X			-006A										
S-TF-10@5'		08:11					X	X	X	X			-007A										
↓ @10'		08:15					X	X	X	X			-008A										
S-TF-11@5'		08:25					X	X	X	X			-009A										
↓ @10'		08:26					X	X	X	X			-010A										
S-TF-12@5'		08:33					X	X	X	X			-011A										
↓ @10'		08:36					X	X	X	X			-012A										
S-TF-8@5'		08:58					X	X	X	X			-013A										
↓ @10'		09:01					X	X	X	X			-014A										
S-TF-9@5'		09:06					X	X	X	X			-015A										
↓ @10'		09:08					X	X	X	X			-016A										
S-TF-5@5'		09:11					X	X	X	X			-017A										
↓ @10'		09:14					X	X	X	X			-018A										
S-36-10-E@5'		11:14					X	X	X	X			-019A										
↓ @10'	↓	11:18	↓	↓	↓	↓	X	X	X	X			-020A										

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
[signature]	11/4/20 07:00	[signature]	[signature]	11/4 12:34	[signature] L-D-Imbsat
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE/TIME	REMARKS	

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ENGEO INCORPORATED

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RE: Brindle Gate

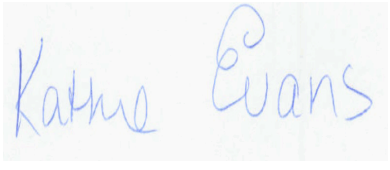
Work Order No.: 2011036

Dear Brooke Spruit:

Torrent Laboratory, Inc. received 20 sample(s) on November 04, 2020 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.



Kathie Evans
Project Manager

November 09, 2020
Date

Date: 11/9/2020

Client: Engeo (San Ramon)

Project: Brindle Gate

Work Order: 2011036

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

Analytical Comments for method 8015B, 2011036-015A MS/MSD, QC Preparation Batch ID 1126810, Note:The % recoveries for TPH Diesel are outside of laboratory control limits but % RPD is within limits. The associated LCS/LCSD is within both % Recovery and %RPD limits. No corrective action required.

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date Received: 11/04/20
Date Reported: 11/09/20

S-TF-1@5' 2011036-001

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	10.5	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	17.2	mg/Kg

S-TF-1@10' 2011036-002

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	2.91	mg/Kg

S-TF-4@5' 2011036-003

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	9.34	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	16.4	mg/Kg

S-TF-4@10' 2011036-004

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	2.87	mg/Kg

S-TF-7@5' 2011036-005

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	4	3.4	8.0	65.2	mg/Kg
TPH as Motor Oil (SG)	SW8015B	4	13	40	184	mg/Kg

S-TF-7@10' 2011036-006

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	20	17	40	192	mg/Kg
TPH as Motor Oil (SG)	SW8015B	20	64	200	277	mg/Kg

S-TF-10@5' 2011036-007

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	3	2.6	6.0	53.5	mg/Kg
TPH as Motor Oil (SG)	SW8015B	3	9.5	30	138	mg/Kg

S-TF-10@5' 2011036-008

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	3	2.6	6.0	66.2	mg/Kg
TPH as Motor Oil (SG)	SW8015B	3	9.5	30	92.3	mg/Kg

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date Received: 11/04/20
Date Reported: 11/09/20

S-TF-11@5' 2011036-009

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	10	8.5	20	99.9	mg/Kg
TPH as Motor Oil (SG)	SW8015B	10	32	100	291	mg/Kg

S-TF-11@10' 2011036-010

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	10	8.5	20	177	mg/Kg
TPH as Motor Oil (SG)	SW8015B	10	32	100	202	mg/Kg

S-TF-12@5' 2011036-011

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	10.2	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	18.9	mg/Kg

S-TF-12@10' 2011036-012

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-TF-8@5' 2011036-013

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	10	8.5	20	109	mg/Kg
TPH as Motor Oil (SG)	SW8015B	10	32	100	286	mg/Kg

S-TF-8@10' 2011036-014

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	10	8.5	20	176	mg/Kg
TPH as Motor Oil (SG)	SW8015B	10	32	100	269	mg/Kg

S-TF-9@5' 2011036-015

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	17.8	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	54.3	mg/Kg

S-TF-9@10' 2011036-016

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	5	4.3	10	85.4	mg/Kg
TPH as Motor Oil (SG)	SW8015B	5	16	50	135	mg/Kg

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date Received: 11/04/20
Date Reported: 11/09/20

S-TF-5@5' 2011036-017

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	16.6	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	58.9	mg/Kg

S-TF-5@10' 2011036-018

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	8.74	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	17.2	mg/Kg

S-36-10-E@5' 2011036-019

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	10	8.5	20	96.5	mg/Kg
TPH as Motor Oil (SG)	SW8015B	10	32	100	387	mg/Kg

S-36-10-E@10' 2011036-020

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	19.4	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	61.1	mg/Kg

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-1@5'	**Lab Sample ID:**	2011036-001A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 7:36		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**10.5**	x	mg/Kg	11/06/20	20:23	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**17.2**		mg/Kg	11/06/20	20:23	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**80.3**		%	11/06/20	20:23	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel and presence of discrete peaks.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126872 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/06/20	12:27	AD	452004
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/06/20	12:27	AD	452004
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/06/20	12:27	AD	452004
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	12:27	AD	452004
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/06/20	12:27	AD	452004
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	12:27	AD	452004
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**132**		%	11/06/20	12:27	AD	452004
(S) Toluene-d8	SW8260B		55.2 - 133		**119**		%	11/06/20	12:27	AD	452004
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**114**		%	11/06/20	12:27	AD	452004

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126873 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/06/20	12:27	AD	452004
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**62.1**		%	11/06/20	12:27	AD	452004

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-1@10'	**Lab Sample ID:**	2011036-002A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 7:40		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**2.91**	x	mg/Kg	11/06/20	20:46	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/06/20	20:46	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**80.0**		%	11/06/20	20:46	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel and presence of discrete peaks.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126872 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/06/20	14:23	AD	452004
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/06/20	14:23	AD	452004
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/06/20	14:23	AD	452004
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	14:23	AD	452004
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/06/20	14:23	AD	452004
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	14:23	AD	452004
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**147**		%	11/06/20	14:23	AD	452004
(S) Toluene-d8	SW8260B		55.2 - 133		**118**		%	11/06/20	14:23	AD	452004
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**118**		%	11/06/20	14:23	AD	452004

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126873 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/06/20	14:23	AD	452004
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**61.6**		%	11/06/20	14:23	AD	452004

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-4@5'	**Lab Sample ID:**	2011036-003A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 7:45		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**9.34**	x	mg/Kg	11/06/20	21:10	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**16.4**		mg/Kg	11/06/20	21:10	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**76.2**		%	11/06/20	21:10	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel and presence of discrete peaks.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126872 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/06/20	14:51	AD	452004
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/06/20	14:51	AD	452004
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/06/20	14:51	AD	452004
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	14:51	AD	452004
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/06/20	14:51	AD	452004
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	14:51	AD	452004
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**141**		%	11/06/20	14:51	AD	452004
(S) Toluene-d8	SW8260B		55.2 - 133		**119**		%	11/06/20	14:51	AD	452004
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**113**		%	11/06/20	14:51	AD	452004

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126873 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/06/20	14:51	AD	452004
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**61.9**		%	11/06/20	14:51	AD	452004

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-4@10'	**Lab Sample ID:**	2011036-004A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 7:49		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**2.87**	x	mg/Kg	11/06/20	21:33	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/06/20	21:33	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**77.0**		%	11/06/20	21:33	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel and presence of discrete peaks.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126872 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/06/20	15:20	AD	452004
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/06/20	15:20	AD	452004
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/06/20	15:20	AD	452004
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	15:20	AD	452004
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/06/20	15:20	AD	452004
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	15:20	AD	452004
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**144**		%	11/06/20	15:20	AD	452004
(S) Toluene-d8	SW8260B		55.2 - 133		**117**		%	11/06/20	15:20	AD	452004
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**113**		%	11/06/20	15:20	AD	452004

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126873 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/06/20	15:20	AD	452004
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**59.5**		%	11/06/20	15:20	AD	452004

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-7@5'	**Lab Sample ID:**	2011036-005A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 7:56		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	4	3.4	8.0	**65.2**	x	mg/Kg	11/07/20	14:40	SN	451988
TPH as Motor Oil (SG)	SW8015B	4	13	40	**184**		mg/Kg	11/07/20	14:40	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**77.4**		%	11/07/20	14:40	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126872 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/06/20	15:49	AD	452004
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/06/20	15:49	AD	452004
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/06/20	15:49	AD	452004
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	15:49	AD	452004
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/06/20	15:49	AD	452004
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	15:49	AD	452004
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**148**		%	11/06/20	15:49	AD	452004
(S) Toluene-d8	SW8260B		55.2 - 133		**121**		%	11/06/20	15:49	AD	452004
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**122**		%	11/06/20	15:49	AD	452004

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126873 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/06/20	15:49	AD	452004
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**52.0**		%	11/06/20	15:49	AD	452004

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-7@10'	**Lab Sample ID:**	2011036-006A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 8:00		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	20	17	40	**192**	x	mg/Kg	11/07/20	15:04	SN	451988
TPH as Motor Oil (SG)	SW8015B	20	64	200	**277**		mg/Kg	11/07/20	15:04	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**0.000**	D	%	11/07/20	15:04	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126872 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/06/20	16:17	AD	452004
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/06/20	16:17	AD	452004
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/06/20	16:17	AD	452004
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	16:17	AD	452004
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/06/20	16:17	AD	452004
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	16:17	AD	452004
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**150**	S	%	11/06/20	16:17	AD	452004
(S) Toluene-d8	SW8260B		55.2 - 133		**124**		%	11/06/20	16:17	AD	452004
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**121**		%	11/06/20	16:17	AD	452004

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126873 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/06/20	16:17	AD	452004
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**47.0**		%	11/06/20	16:17	AD	452004

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-10@5'	**Lab Sample ID:**	2011036-007A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 8:11		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	3	2.6	6.0	**53.5**	x	mg/Kg	11/07/20	15:27	SN	451988
TPH as Motor Oil (SG)	SW8015B	3	9.5	30	**138**		mg/Kg	11/07/20	15:27	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**70.2**		%	11/07/20	15:27	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126872 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/06/20	16:46	AD	452004
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/06/20	16:46	AD	452004
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/06/20	16:46	AD	452004
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	16:46	AD	452004
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/06/20	16:46	AD	452004
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	16:46	AD	452004
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**131**		%	11/06/20	16:46	AD	452004
(S) Toluene-d8	SW8260B		55.2 - 133		**125**		%	11/06/20	16:46	AD	452004
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**121**		%	11/06/20	16:46	AD	452004

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126873 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/06/20	16:46	AD	452004
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**46.0**		%	11/06/20	16:46	AD	452004

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-10@5'	**Lab Sample ID:**	2011036-008A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 8:15		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	3	2.6	6.0	**66.2**	x	mg/Kg	11/07/20	15:51	SN	451988
TPH as Motor Oil (SG)	SW8015B	3	9.5	30	**92.3**		mg/Kg	11/07/20	15:51	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**68.6**		%	11/07/20	15:51	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126872 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/06/20	17:15	AD	452004
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/06/20	17:15	AD	452004
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/06/20	17:15	AD	452004
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	17:15	AD	452004
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/06/20	17:15	AD	452004
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/06/20	17:15	AD	452004
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**141**		%	11/06/20	17:15	AD	452004
(S) Toluene-d8	SW8260B		55.2 - 133		**116**		%	11/06/20	17:15	AD	452004
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**110**		%	11/06/20	17:15	AD	452004

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 9:34:00AM
Prep Batch ID: 1126873 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/06/20	17:15	AD	452004
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**45.2**		%	11/06/20	17:15	AD	452004

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-11@5'	**Lab Sample ID:**	2011036-009A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 8:25		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	10	8.5	20	**99.9**	x	mg/Kg	11/07/20	16:14	SN	451988
TPH as Motor Oil (SG)	SW8015B	10	32	100	**291**		mg/Kg	11/07/20	16:14	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**86.0**		%	11/07/20	16:14	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	3:29	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	3:29	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	3:29	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	3:29	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	3:29	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	3:29	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**159**	S	%	11/07/20	3:29	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**119**		%	11/07/20	3:29	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**131**		%	11/07/20	3:29	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	3:29	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**32.9**	S	%	11/07/20	3:29	AD	452010

NOTE: S - Low surrogate recovery; analyzed twice with a similar result indicating a matrix effect.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-11@10'	**Lab Sample ID:**	2011036-010A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 8:26		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	10	8.5	20	**177**	x	mg/Kg	11/07/20	16:37	SN	451988
TPH as Motor Oil (SG)	SW8015B	10	32	100	**202**		mg/Kg	11/07/20	16:37	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**73.4**		%	11/07/20	16:37	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	3:58	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	3:58	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	3:58	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	3:58	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	3:58	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	3:58	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**160**	S	%	11/07/20	3:58	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**121**		%	11/07/20	3:58	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**130**		%	11/07/20	3:58	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	3:58	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**34.5**	S	%	11/07/20	3:58	AD	452010

NOTE: S - Low surrogate recovery; analyzed twice with a similar result indicating a matrix effect.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-12@5'	**Lab Sample ID:**	2011036-011A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 8:33		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**10.2**	x	mg/Kg	11/07/20	1:03	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**18.9**		mg/Kg	11/07/20	1:03	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**73.6**		%	11/07/20	1:03	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel and presence of discrete peaks.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	4:27	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	4:27	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	4:27	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	4:27	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	4:27	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	4:27	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**158**	S	%	11/07/20	4:27	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**114**		%	11/07/20	4:27	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**116**		%	11/07/20	4:27	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	4:27	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**45.6**		%	11/07/20	4:27	AD	452010

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-12@10'	**Lab Sample ID:**	2011036-012A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 8:38		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/07/20	1:26	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/07/20	1:26	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**64.2**		%	11/07/20	1:26	SN	451988

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	4:57	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	4:57	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	4:57	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	4:57	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	4:57	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	4:57	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**141**		%	11/07/20	4:57	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**105**		%	11/07/20	4:57	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**104**		%	11/07/20	4:57	AD	452010

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	4:57	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**51.3**		%	11/07/20	4:57	AD	452010

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-8@5'	**Lab Sample ID:**	2011036-013A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 8:58		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	10	8.5	20	**109**	x	mg/Kg	11/07/20	17:01	SN	451988
TPH as Motor Oil (SG)	SW8015B	10	32	100	**286**		mg/Kg	11/07/20	17:01	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**87.0**		%	11/07/20	17:01	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	5:26	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	5:26	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	5:26	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	5:26	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	5:26	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	5:26	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**159**	S	%	11/07/20	5:26	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**118**		%	11/07/20	5:26	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**125**		%	11/07/20	5:26	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	5:26	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**43.8**	S	%	11/07/20	5:26	AD	452010

NOTE: S - Low surrogate recovery; analyzed twice with a similar result indicating a matrix effect.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-8@10'	**Lab Sample ID:**	2011036-014A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 9:01		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	10	8.5	20	**176**	x	mg/Kg	11/07/20	17:24	SN	451988
TPH as Motor Oil (SG)	SW8015B	10	32	100	**269**		mg/Kg	11/07/20	17:24	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**75.0**		%	11/07/20	17:24	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	5:55	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	5:55	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	5:55	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	5:55	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	5:55	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	5:55	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**159**	S	%	11/07/20	5:55	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**128**		%	11/07/20	5:55	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**125**		%	11/07/20	5:55	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	5:55	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**37.0**	S	%	11/07/20	5:55	AD	452010

NOTE: S - Low surrogate recovery; analyzed twice with a similar result indicating a matrix effect.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-9@5'	**Lab Sample ID:**	2011036-015A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 9:06		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**17.8**	x	mg/Kg	11/07/20	2:36	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**54.3**		mg/Kg	11/07/20	2:36	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**78.1**		%	11/07/20	2:36	SN	451988

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	6:24	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	6:24	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	6:24	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	6:24	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	6:24	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	6:24	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**168**	S	%	11/07/20	6:24	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**119**		%	11/07/20	6:24	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**129**		%	11/07/20	6:24	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	6:24	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**37.2**	S	%	11/07/20	6:24	AD	452010

NOTE: S - Low surrogate recovery; analyzed twice with a similar result indicating a matrix effect.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-9@10'	**Lab Sample ID:**	2011036-016A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 9:08		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	5	4.3	10	**85.4**	x	mg/Kg	11/07/20	17:48	SN	451988
TPH as Motor Oil (SG)	SW8015B	5	16	50	**135**		mg/Kg	11/07/20	17:48	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**77.5**		%	11/07/20	17:48	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	6:53	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	6:53	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	6:53	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	6:53	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	6:53	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	6:53	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**155**	S	%	11/07/20	6:53	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**128**		%	11/07/20	6:53	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**135**		%	11/07/20	6:53	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	6:53	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**47.6**		%	11/07/20	6:53	AD	452010

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-5@5'	**Lab Sample ID:**	2011036-017A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 9:11		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**16.6**	x	mg/Kg	11/07/20	3:23	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**58.9**		mg/Kg	11/07/20	3:23	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**84.0**		%	11/07/20	3:23	SN	451988

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	7:22	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	7:22	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	7:22	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	7:22	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	7:22	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	7:22	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**148**		%	11/07/20	7:22	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**116**		%	11/07/20	7:22	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**120**		%	11/07/20	7:22	AD	452010

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	7:22	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**50.4**		%	11/07/20	7:22	AD	452010

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-TF-5@10'	**Lab Sample ID:**	2011036-018A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 9:14		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**8.74**	x	mg/Kg	11/07/20	3:46	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**17.2**		mg/Kg	11/07/20	3:46	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**73.1**		%	11/07/20	3:46	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel and presence of discrete peaks.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	7:51	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	7:51	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	7:51	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	7:51	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	7:51	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	7:51	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**156**	S	%	11/07/20	7:51	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**117**		%	11/07/20	7:51	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**119**		%	11/07/20	7:51	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	7:51	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**49.9**		%	11/07/20	7:51	AD	452010

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-36-10-E@5'	**Lab Sample ID:**	2011036-019A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 11:14		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	10	8.5	20	**96.5**	x	mg/Kg	11/07/20	18:11	SN	451988
TPH as Motor Oil (SG)	SW8015B	10	32	100	**387**		mg/Kg	11/07/20	18:11	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**76.1**		%	11/07/20	18:11	SN	451988

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	8:20	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	8:20	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	8:20	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	8:20	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	8:20	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	8:20	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**165**	S	%	11/07/20	8:20	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**124**		%	11/07/20	8:20	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**139**		%	11/07/20	8:20	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	8:20	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**41.6**	S	%	11/07/20	8:20	AD	452010

NOTE: S - Low surrogate recovery; analyzed twice with a similar result indicating a matrix effect.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-36-10-E@10'	**Lab Sample ID:**	2011036-020A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 11:18		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:31:00PM
Prep Batch ID: 1126810 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**19.4**	x	mg/Kg	11/07/20	4:33	SN	451988
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**61.1**		mg/Kg	11/07/20	4:33	SN	451988
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**71.1**		%	11/07/20	4:33	SN	451988

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	8:50	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	8:50	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	8:50	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	8:50	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	8:50	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	8:50	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**153**	S	%	11/07/20	8:50	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**113**		%	11/07/20	8:50	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**114**		%	11/07/20	8:50	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/07/20	8:50	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**52.8**		%	11/07/20	8:50	AD	452010

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011036	**Prep Method:**	3546_TPHSG	**Prep Date:**	11/05/20	**Prep Batch:**	1126810
Matrix:	Soil	**Analytical Method:**	SW8015B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	451988
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Diesel (SG)	0.85	2.0	0.895	
TPH as Motor Oil (SG)	3.2	10	ND	
Pentacosane (S)			93.5	

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126872
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452004
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	1.2	10	1.6	
Chloromethane	1.8	10	ND	
Vinyl Chloride	2.0	10	ND	
Bromomethane	2.7	10	ND	
Chloroethane	3.0	10	ND	
Trichlorofluoromethane	2.1	10	ND	
1,1-Dichloroethene	2.0	10	ND	
Freon 113	1.9	10	ND	
Methylene Chloride	7.1	10	ND	
trans-1,2-Dichloroethene	2.1	10	ND	
MTBE	2.3	10	ND	
TBA	12	50	14	
Diisopropyl ether	2.3	10	ND	
1,1-Dichloroethane	2.2	10	ND	
Ethyl tert-Butyl ether	2.3	10	ND	
cis-1,2-Dichloroethene	2.2	10	ND	
2,2-Dichloropropane	1.9	10	ND	
Bromochloromethane	2.3	10	ND	
Chloroform	2.4	10	ND	
Carbon Tetrachloride	2.1	10	ND	
1,1,1-Trichloroethane	2.1	10	ND	
1,1-Dichloropropene	2.0	10	ND	
Benzene	2.2	10	ND	
TAME	2.3	10	ND	
1,2-Dichloroethane	2.3	10	ND	
Trichloroethylene	1.8	10	ND	
Dibromomethane	1.8	10	ND	
1,2-Dichloropropane	1.9	10	ND	
Bromodichloromethane	2.0	10	ND	
cis-1,3-Dichloropropene	1.6	10	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126872
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452004
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Toluene	1.8	10	ND	
Tetrachloroethylene	1.7	10	ND	
trans-1,3-Dichloropropene	1.6	10	ND	
1,1,2-Trichloroethane	1.8	10	ND	
Dibromochloromethane	1.9	10	ND	
1,3-Dichloropropane	1.8	10	ND	
1,2-Dibromoethane	1.8	10	ND	
Chlorobenzene	1.8	10	ND	
Ethylbenzene	1.7	10	ND	
1,1,1,2-Tetrachloroethane	1.9	10	ND	
m,p-Xylene	3.2	10	ND	
o-Xylene	1.7	10	ND	
Styrene	1.6	10	ND	
Bromoform	1.7	10	ND	
Isopropyl Benzene	1.6	10	ND	
n-Propylbenzene	1.6	10	ND	
Bromobenzene	1.8	10	ND	
1,1,2,2-Tetrachloroethane	1.9	10	ND	
2-Chlorotoluene	1.8	10	ND	
1,3,5-Trimethylbenzene	1.6	10	ND	
1,2,3-Trichloropropane	1.9	10	ND	
4-Chlorotoluene	1.6	10	ND	
tert-Butylbenzene	1.6	10	ND	
1,2,4-Trimethylbenzene	1.4	10	ND	
sec-Butyl Benzene	1.6	10	1.6	
p-Isopropyltoluene	1.5	10	ND	
1,3-Dichlorobenzene	1.7	10	ND	
1,4-Dichlorobenzene	1.7	10	ND	
n-Butylbenzene	1.5	10	ND	
1,2-Dichlorobenzene	1.8	10	ND	
1,2-Dibromo-3-Chloropropane	1.8	10	ND	
Hexachlorobutadiene	1.4	10	ND	
1,2,4-Trichlorobenzene	1.5	10	ND	
Naphthalene	1.7	10	5.7	
1,2,3-Trichlorobenzene	1.7	10	1.7	
2-Butanone	2.3	10	ND	
4-Methyl-2-Pentanone (MIBK)	2.0	50	ND	
Hexachloroethane	5.0	10	ND	
1,4-Dioxane	100	200	ND	
2-Hexanone	5.0	20	ND	
Acetone	8.2	20	ND	
(S) Dibromofluoromethane			132	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126872
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452004
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
(S) Toluene-d8			115	
(S) 4-Bromofluorobenzene			110	

Work Order:	2011036	**Prep Method:**	5035GRO	**Prep Date:**	11/06/20	**Prep Batch:**	1126873
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452004
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Gasoline	43	100	43	
(S) 4-Bromofluorobenzene			56.2	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126889
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452010
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	1.2	10	ND	
Chloromethane	1.8	10	ND	
Vinyl Chloride	2.0	10	ND	
Bromomethane	2.7	10	ND	
Chloroethane	3.0	10	ND	
Trichlorofluoromethane	2.1	10	ND	
1,1-Dichloroethene	2.0	10	ND	
Freon 113	1.9	10	ND	
Methylene Chloride	7.1	10	ND	
trans-1,2-Dichloroethene	2.1	10	ND	
MTBE	2.3	10	ND	
TBA	12	50	ND	
Diisopropyl ether	2.3	10	ND	
1,1-Dichloroethane	2.2	10	ND	
Ethyl tert-Butyl ether	2.3	10	ND	
cis-1,2-Dichloroethene	2.2	10	ND	
2,2-Dichloropropane	1.9	10	ND	
Bromochloromethane	2.3	10	ND	
Chloroform	2.4	10	ND	
Carbon Tetrachloride	2.1	10	ND	
1,1,1-Trichloroethane	2.1	10	ND	
1,1-Dichloropropene	2.0	10	ND	
Benzene	2.2	10	ND	
TAME	2.3	10	ND	
1,2-Dichloroethane	2.3	10	ND	
Trichloroethylene	1.8	10	ND	
Dibromomethane	1.8	10	ND	
1,2-Dichloropropane	1.9	10	ND	
Bromodichloromethane	2.0	10	ND	
cis-1,3-Dichloropropene	1.6	10	ND	
Toluene	1.8	10	ND	
Tetrachloroethylene	1.7	10	ND	
trans-1,3-Dichloropropene	1.6	10	ND	
1,1,2-Trichloroethane	1.8	10	ND	
Dibromochloromethane	1.9	10	ND	
1,3-Dichloropropane	1.8	10	ND	
1,2-Dibromoethane	1.8	10	ND	
Chlorobenzene	1.8	10	ND	
Ethylbenzene	1.7	10	ND	
1,1,1,2-Tetrachloroethane	1.9	10	ND	
m,p-Xylene	3.2	10	ND	
o-Xylene	1.7	10	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126889
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452010
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Styrene	1.6	10	ND	
Bromoform	1.7	10	ND	
Isopropyl Benzene	1.6	10	ND	
n-Propylbenzene	1.6	10	ND	
Bromobenzene	1.8	10	ND	
1,1,2,2-Tetrachloroethane	1.9	10	ND	
2-Chlorotoluene	1.8	10	ND	
1,3,5-Trimethylbenzene	1.6	10	2.3	
1,2,3-Trichloropropane	1.9	10	ND	
4-Chlorotoluene	1.6	10	ND	
tert-Butylbenzene	1.6	10	1.8	
1,2,4-Trimethylbenzene	1.4	10	2.3	
sec-Butyl Benzene	1.6	10	ND	
p-Isopropyltoluene	1.5	10	3.1	
1,3-Dichlorobenzene	1.7	10	ND	
1,4-Dichlorobenzene	1.7	10	ND	
n-Butylbenzene	1.5	10	1.6	
1,2-Dichlorobenzene	1.8	10	ND	
1,2-Dibromo-3-Chloropropane	1.8	10	ND	
Hexachlorobutadiene	1.4	10	ND	
1,2,4-Trichlorobenzene	1.5	10	7.5	
Naphthalene	1.7	10	5.3	
1,2,3-Trichlorobenzene	1.7	10	1.7	
2-Butanone	2.3	10	3.7	
4-Methyl-2-Pentanone (MIBK)	2.0	50	5.2	
Hexachloroethane	5.0	10	ND	
1,4-Dioxane	100	200	ND	
2-Hexanone	5.0	20	ND	
Acetone	8.2	20	ND	
(S) Dibromofluoromethane			137	
(S) Toluene-d8			118	
(S) 4-Bromofluorobenzene			112	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011036	**Prep Method:**	5035GRO	**Prep Date:**	11/06/20	**Prep Batch:**	1126890
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452010
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
TPH as Gasoline	43	100	ND		
(S) 4-Bromofluorobenzene			67.1		

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011036	**Prep Method:**	3546_TPHSG	**Prep Date:**	11/05/20	**Prep Batch:**	1126810
Matrix:	Soil	**Analytical Method:**	SW8015B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	451988
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	0.85	2.0	0.895	25.0	73.5	79.0	6.82	40 - 110	30	
Pentacosane (S)			ND	200	106	105		40 - 129		

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126872
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452004
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	2.0	10	1.6	50.0	82.2	85.7	4.29	53.7 - 139	30	
Benzene	2.2	10	ND	50.0	90.5	95.5	5.59	66.5 - 135	30	
Trichloroethylene	1.8	10	ND	50.0	94.3	97.8	3.75	57.5 - 150	30	
Toluene	1.8	10	ND	50.0	96.2	104	7.41	56.8 - 134	30	
Chlorobenzene	1.8	10	ND	50.0	92.3	98.0	6.10	57.4 - 134	30	
(S) Dibromofluoromethane				50.0	95.8	98.5		59.8 - 148		
(S) Toluene-d8				50.0	96.1	102		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	90.1	100		55.8 - 141		

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126872
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452004
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
MTBE	2.34	10.0		50.0	93.3	98.1	5.22	70 - 130	30	
Benzene	2.2	10		50.0	90.5	95.5	5.59	66.5 - 135	30	
Ethylbenzene	1.65	10.0		50.0	96.7	102	5.23	70 - 130	30	
Toluene	1.82	10		50.0	96.2	104	7.41	56.8 - 134	30	
m,p-Xylene	3.16	10.0		100	102	108	5.71	70 - 130	30	
o-Xylene	1.73	10.0		50.0	89.3	90.8	1.78	70 - 130	30	
(S) Dibromofluoromethane				50.0	95.8	98.5		59.8 - 148		
(S) Toluene-d8				50.0	96.1	102		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	90.1	100		55.8 - 141		

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011036	**Prep Method:**	5035GRO	**Prep Date:**	11/06/20	**Prep Batch:**	1126873
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452004
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	43	100	43	1000	86.5	87.1	0.691	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	84.7	81.0		43.9 - 127		

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126889
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/7/2020	**Analytical Batch:**	452010
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
MTBE	2.34	10.0	ND	50.0	101	102	0.592	70 - 130	30	
Benzene	2.2	10	ND	50.0	98.1	101	2.41	66.5 - 135	30	
Ethylbenzene	1.65	10.0	ND	50.0	104	106	2.10	70 - 130	30	
Toluene	1.82	10	ND	50.0	106	106	0.188	56.8 - 134	30	
m,p-Xylene	3.16	10.0	ND	100	109	111	1.82	70 - 130	30	
o-Xylene	1.73	10.0	ND	50.0	94.2	96.8	2.72	70 - 130	30	
(S) Dibromofluoromethane				50.0	99.1	102		59.8 - 148		
(S) Toluene-d8				50.0	101	104		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	99.2	104		55.8 - 141		

Work Order:	2011036	**Prep Method:**	5035GRO	**Prep Date:**	11/06/20	**Prep Batch:**	1126890
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/7/2020	**Analytical Batch:**	452010
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	43	100	ND	1000	85.0	83.7	1.54	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	80.7	84.9		43.9 - 127		

Torrent LABORATORY, INC.

MS/MSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011036	**Prep Method:**	3546_TPHSG	**Prep Date:**	11/05/20	**Prep Batch:**	1126810
Matrix:	**Soil**	**Analytical Method:**	SW8015B	**Analyzed Date:**	11/7/2020	**Analytical Batch:**	451988
Spiked Sample:	2011036-015A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	0.850	2.00	17.8	25.0	193	178	6.08	40 - 110	30	S
Pentacosane (S)				200	91.7	92.7		40 - 129		

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126872
Matrix:	**Soil**	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452004
Spiked Sample:	2011036-008A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.0020	0.010	ND	0.05	98.7	99.3	0.605	55 - 125	30	
Benzene	0.0022	0.010	ND	0.05	108	110	2.02	55 - 125	30	
Trichloroethylene	0.0018	0.010	ND	0.05	109	112	3.31	55 - 125	30	
Toluene	0.0018	0.010	ND	0.05	110	111	1.09	55 - 125	30	
Chlorobenzene	0.0018	0.010	ND	0.05	105	105	0.381	55 - 125	30	
(S) Dibromofluoromethane				50	115	114		59.8 - 148		
(S) Toluene-d8				50	106	106		55.2 - 133		
(S) 4-Bromofluorobenzene				50	102	104		55.8 - 141		

Work Order:	2011036	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126889
Matrix:	**Soil**	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/7/2020	**Analytical Batch:**	452010
Spiked Sample:	2011036-012A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.0020	0.010	ND	0.05	102	101	1.38	55 - 125	30	
Benzene	0.0022	0.010	ND	0.05	114	110	3.21	55 - 125	30	
Trichloroethylene	0.0018	0.010	ND	0.05	107	104	2.09	55 - 125	30	
Toluene	0.0018	0.010	ND	0.05	105	106	0.946	55 - 125	30	
Chlorobenzene	0.0018	0.010	ND	0.05	101	99.6	1.40	55 - 125	30	
(S) Dibromofluoromethane				50	119	115		59.8 - 148		
(S) Toluene-d8				50	101	101		55.2 - 133		
(S) 4-Bromofluorobenzene				50	97.7	98.3		55.8 - 141		

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg/m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the analyte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: Engeo (San Ramon)

Project Name: Brindle Gate

Work Order No.: 2011036

Date and Time Received: 11/4/2020 1:15:00PM

Received By: Lorna Imbat

Physically Logged By: Lorna Imbat

Checklist Completed By: Lorna Imbat

Carrier Name: Client Drop Off

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes			
Container/Temp Blank temperature in compliance?	Yes	Temperature:	2.0	°C
Water-VOA vials have zero headspace?	No VOA vials submitted			
Water-pH acceptable upon receipt?	N/A			

pH Checked by: n/a

pH Adjusted by: n/a

Comments:

Sample -10A labelled S-TF-11 @ 5' VS COC S-TF-11 @ 10' @ 8:26AM

Torrent LABORATORY, INC.

Login Summary Report

Client ID:	TL5123	Engeo (San Ramon)	**QC Level:**	II
Project Name:	Brindle Gate		**TAT Requested:**	3 Day Std:3
Project # :	3359.210.001		**Date Received:**	11/4/2020
Report Due Date:	11/9/2020		**Time Received:**	1:15 pm

Comments:

Work Order # : ***2011036***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2011036-001A	S-TF-1@5'	11/03/20 7:36	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
Sample Note:	MBTEX for 8260							
2011036-002A	S-TF-1@10'	11/03/20 7:40	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011036-003A	S-TF-4@5'	11/03/20 7:45	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011036-004A	S-TF-4@10'	11/03/20 7:49	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011036-005A	S-TF-7@5'	11/03/20 7:56	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011036-006A	S-TF-7@10'	11/03/20 8:00	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011036-007A	S-TF-10@5'	11/03/20 8:11	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011036-008A	S-TF-10@5'	11/03/20 8:15	Soil	05/02/21			TPHDOSG_S_8015B	

Torrent LABORATORY, INC.

Login Summary Report

Client ID: TL5123 Engeo (San Ramon)
Project Name: Brindle Gate
Project # : 3359.210.001
Report Due Date: 11/9/2020

QC Level: II
TAT Requested: 3 Day Std:3
Date Received: 11/4/2020
Time Received: 1:15 pm

Comments:

Work Order # : ***2011036***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2011036-009A	S-TF-11@5'	11/03/20 8:25	Soil	05/02/21			VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg TPHDOSG_S_8015B	
2011036-010A	S-TF-11@10'	11/03/20 8:26	Soil	05/02/21			VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg TPHDOSG_S_8015B	
2011036-011A	S-TF-12@5'	11/03/20 8:33	Soil	05/02/21			VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg TPHDOSG_S_8015B	
2011036-012A	S-TF-12@10'	11/03/20 8:38	Soil	05/02/21			VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg TPHDOSG_S_8015B	
2011036-013A	S-TF-8@5'	11/03/20 8:58	Soil	05/02/21			VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg TPHDOSG_S_8015B	
2011036-014A	S-TF-8@10'	11/03/20 9:01	Soil	05/02/21			VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg TPHDOSG_S_8015B	
2011036-015A	S-TF-9@5'	11/03/20 9:06	Soil	05/02/21			VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg TPHDOSG_S_8015B	
2011036-016A	S-TF-9@10'	11/03/20 9:08	Soil	05/02/21			VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	

Torrent LABORATORY, INC.

Login Summary Report

Client ID: TL5123 Engeo (San Ramon)
Project Name: Brindle Gate
Project # : 3359.210.001
Report Due Date: 11/9/2020

QC Level: II
TAT Requested: 3 Day Std:3
Date Received: 11/4/2020
Time Received: 1:15 pm

Comments:

Work Order # : ***2011036***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2011036-017A	S-TF-5@5'	11/03/20 9:11	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
2011036-018A	S-TF-5@10'	11/03/20 9:14	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011036-019A	S-36-10-E@5'	11/03/20 11:14	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
2011036-020A	S-36-10-E@10'	11/03/20 11:18	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	

Torrent LABORATORY, INC.

2011036

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
3359.210.001	Brindle Gate

SAMPLED BY: (SIGNATURE/PRINT) Taunee Werts

PROJECT MANAGER: (SIGNATURE/PRINT) Brooke Spruit

ROUTING: E-MAIL Bspruit, twerts, smunger@engeo.com

SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	TPH-g	BTEX (8260)	MTBE	TPH-d/mo wt (Si. cleanup)													REMARKS / REQUIRED DETECTION LIMITS
S-TF-1@5'	11/3/20	07:30	Soil	1	sleeve	N/A	X	X	X	X			-001A										
↓ @10'		07:40					X	X	X	X			-002A										
S-TF-4@5'		07:45					X	X	X	X			-003A										
↓ @10'		07:49					X	X	X	X			-004A										
S-TF-7@5'		07:56					X	X	X	X			-005A										
↓ @10'		08:00					X	X	X	X			-006A										
S-TF-10@5'		08:11					X	X	X	X			-007A										
↓ @10'		08:15					X	X	X	X			-008A										
S-TF-11@5'		08:25					X	X	X	X			-009A										
↓ @10'		08:26					X	X	X	X			-010A										
S-TF-12@5'		08:33					X	X	X	X			-011A										
↓ @10'		08:36					X	X	X	X			-012A										
S-TF-8@5'		08:58					X	X	X	X			-013A										
↓ @10'		09:01					X	X	X	X			-014A										
S-TF-9@5'		09:06					X	X	X	X			-015A										
↓ @10'		09:08					X	X	X	X			-016A										
S-TF-5@5'		09:11					X	X	X	X			-017A										
↓ @10'		09:14					X	X	X	X			-018A										
S-36-10-E@5'		11:14					X	X	X	X			-019A										
↓ @10'	↓	11:18	↓	↓	↓	↓	X	X	X	X			-020A										

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
[signature]	11/4/20 07:00	[signature]	[signature]	11/4 12:34	[signature] L-D-Imbsat
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE/TIME	REMARKS	

pg 1 of

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FC temp 2 #1

ENGEO INCORPORATED

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WWW.ENGEO.COM

Engeo (San Ramon)
2010 Crow Canyon Place,#250
San Ramon, California 94583
Tel: (925) 866-9000
Fax: (925) 866-0199

RE: Brindle Gate

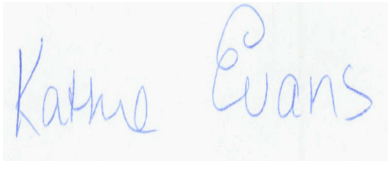
Work Order No.: 2011037

Dear Brooke Spruit:

Torrent Laboratory, Inc. received 8 sample(s) on November 04, 2020 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.



Kathie Evans
Project Manager

November 09, 2020
Date

Date: 11/9/2020

Client: Engeo (San Ramon)

Project: Brindle Gate

Work Order: 2011037

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

Analytical Comments for method 8015B, 2011037-007A MS/MSD, QC Preparation Batch ID 1126811, Note:The % recoveries for TPH as Diesel are outside of laboratory control limits but % RPD is within limits. The associated LCS/LCSD is within both % Recovery and %RPD limits. No corrective action required.

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date Received: 11/04/20
Date Reported: 11/09/20

S-36-10-S@5' 2011037-001

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	2.89	mg/Kg

S-36-10-S@10' 2011037-002

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	3.63	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	16.3	mg/Kg

S-36-10-N@5' 2011037-003

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	4.52	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	30.2	mg/Kg

S-36-10-N@10' 2011037-004

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	5	4.3	10	89.4	mg/Kg
TPH as Motor Oil (SG)	SW8015B	5	16	50	78.0	mg/Kg

S-36-10-W@5' 2011037-005

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Gasoline	8260TPH	1	0.043	0.10	0.101	mg/Kg
TPH as Diesel (SG)	SW8015B	5	4.3	10	61.1	mg/Kg
TPH as Motor Oil (SG)	SW8015B	5	16	50	260	mg/Kg

S-36-10-W@10' 2011037-006

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-36-10-C@5' 2011037-007

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	10	8.5	20	61.6	mg/Kg
TPH as Motor Oil (SG)	SW8015B	10	32	100	234	mg/Kg

S-36-10-C@10' 2011037-008

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	5.93	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	23.0	mg/Kg

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-36-10-S@5'	**Lab Sample ID:**	2011037-001A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 11:20		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:38:00PM
Prep Batch ID: 1126811 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**2.89**	x	mg/Kg	11/07/20	7:39	SN	451989
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/07/20	7:39	SN	451989
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**51.5**		%	11/07/20	7:39	SN	451989

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/5/20 1:38:00PM
Prep Batch ID: 1126817 **Prep Analyst:** JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	17:54	JZ	451935
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	17:54	JZ	451935
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	17:54	JZ	451935
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	17:54	JZ	451935
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	17:54	JZ	451935
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	17:54	JZ	451935
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**131**		%	11/05/20	17:54	JZ	451935
(S) Toluene-d8	SW8260B		55.2 - 133		**116**		%	11/05/20	17:54	JZ	451935
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**112**		%	11/05/20	17:54	JZ	451935

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/5/20 1:38:00PM
Prep Batch ID: 1126820 **Prep Analyst:** JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	17:54	JZ	451935
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**58.2**		%	11/05/20	17:54	JZ	451935

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-36-10-S@10'	**Lab Sample ID:**	2011037-002A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 11:22		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:38:00PM
Prep Batch ID: 1126811 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**3.63**	x	mg/Kg	11/07/20	8:02	SN	451989
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**16.3**		mg/Kg	11/07/20	8:02	SN	451989
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**40.8**		%	11/07/20	8:02	SN	451989

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/5/20 1:38:00PM
Prep Batch ID: 1126817 **Prep Analyst:** JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	18:23	JZ	451935
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	18:23	JZ	451935
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	18:23	JZ	451935
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	18:23	JZ	451935
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	18:23	JZ	451935
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	18:23	JZ	451935
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**141**		%	11/05/20	18:23	JZ	451935
(S) Toluene-d8	SW8260B		55.2 - 133		**114**		%	11/05/20	18:23	JZ	451935
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**111**		%	11/05/20	18:23	JZ	451935

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/5/20 1:38:00PM
Prep Batch ID: 1126820 **Prep Analyst:** JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	18:23	JZ	451935
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**50.9**		%	11/05/20	18:23	JZ	451935

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-36-10-N@5'	**Lab Sample ID:**	2011037-003A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 11:33		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:38:00PM
Prep Batch ID: 1126811 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**4.52**	x	mg/Kg	11/07/20	8:25	SN	451989
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**30.2**		mg/Kg	11/07/20	8:25	SN	451989
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**46.5**		%	11/07/20	8:25	SN	451989

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/5/20 1:38:00PM
Prep Batch ID: 1126817 **Prep Analyst:** JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	19:50	JZ	451935
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	19:50	JZ	451935
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	19:50	JZ	451935
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	19:50	JZ	451935
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	19:50	JZ	451935
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	19:50	JZ	451935
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**137**		%	11/05/20	19:50	JZ	451935
(S) Toluene-d8	SW8260B		55.2 - 133		**119**		%	11/05/20	19:50	JZ	451935
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**113**		%	11/05/20	19:50	JZ	451935

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/5/20 1:38:00PM
Prep Batch ID: 1126820 **Prep Analyst:** JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	19:50	JZ	451935
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**64.9**		%	11/05/20	19:50	JZ	451935

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-36-10-N@10'	**Lab Sample ID:**	2011037-004A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 11:42		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:38:00PM
Prep Batch ID: 1126811 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	5	4.3	10	**89.4**	x	mg/Kg	11/07/20	9:11	SN	451989
TPH as Motor Oil (SG)	SW8015B	5	16	50	**78.0**		mg/Kg	11/07/20	9:11	SN	451989
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**62.2**		%	11/07/20	9:11	SN	451989

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/5/20 1:38:00PM
Prep Batch ID: 1126817 **Prep Analyst:** JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	20:20	JZ	451935
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	20:20	JZ	451935
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	20:20	JZ	451935
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	20:20	JZ	451935
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	20:20	JZ	451935
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	20:20	JZ	451935
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**146**		%	11/05/20	20:20	JZ	451935
(S) Toluene-d8	SW8260B		55.2 - 133		**117**		%	11/05/20	20:20	JZ	451935
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**113**		%	11/05/20	20:20	JZ	451935

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/5/20 1:38:00PM
Prep Batch ID: 1126820 **Prep Analyst:** JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	20:20	JZ	451935
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**52.6**		%	11/05/20	20:20	JZ	451935

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-36-10-W@5'	**Lab Sample ID:**	2011037-005A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 11:56		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:38:00PM
Prep Batch ID: 1126811 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	5	4.3	10	**61.1**	x	mg/Kg	11/07/20	10:00	SN	451989
TPH as Motor Oil (SG)	SW8015B	5	16	50	**260**		mg/Kg	11/07/20	10:00	SN	451989
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**63.0**		%	11/07/20	10:00	SN	451989

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126889 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/07/20	2:59	AD	452010
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/07/20	2:59	AD	452010
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/07/20	2:59	AD	452010
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	2:59	AD	452010
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/07/20	2:59	AD	452010
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/07/20	2:59	AD	452010
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**152**	S	%	11/07/20	2:59	AD	452010
(S) Toluene-d8	SW8260B		55.2 - 133		**124**		%	11/07/20	2:59	AD	452010
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**128**		%	11/07/20	2:59	AD	452010

NOTE: S-Surrogate recovery out of limit-high bias. Data was acceptable because sample result was ND (Not Detected). No corrective action required.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/6/20 10:36:00PM
Prep Batch ID: 1126890 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	**0.101**	x	mg/Kg	11/07/20	2:59	AD	452010
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**35.4**	S	%	11/07/20	2:59	AD	452010

NOTE: S - Low surrogate recovery; analyzed twice with a similar result indicating a matrix effect
x – Does not match pattern of reference Gasoline standard. Hydrocarbons in the range of C5-C12 quantified as Gasoline.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-36-10-W@10'	**Lab Sample ID:**	2011037-006A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 11:58		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:38:00PM
Prep Batch ID: 1126811 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/07/20	10:23	SN	451989
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/07/20	10:23	SN	451989
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**59.9**		%	11/07/20	10:23	SN	451989

Prep Method: 5035 **Prep Batch Date/Time:** 11/5/20 1:38:00PM
Prep Batch ID: 1126817 **Prep Analyst:** JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	20:49	JZ	451935
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	20:49	JZ	451935
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	20:49	JZ	451935
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	20:49	JZ	451935
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	20:49	JZ	451935
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	20:49	JZ	451935
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**147**		%	11/05/20	20:49	JZ	451935
(S) Toluene-d8	SW8260B		55.2 - 133		**117**		%	11/05/20	20:49	JZ	451935
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**112**		%	11/05/20	20:49	JZ	451935

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/5/20 1:38:00PM
Prep Batch ID: 1126820 **Prep Analyst:** JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	20:49	JZ	451935
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**62.0**		%	11/05/20	20:49	JZ	451935

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-36-10-C@5'	**Lab Sample ID:**	2011037-007A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 12:02		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:38:00PM
Prep Batch ID: 1126811 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	10	8.5	20	**61.6**	x	mg/Kg	11/07/20	11:10	SN	451989
TPH as Motor Oil (SG)	SW8015B	10	32	100	**234**		mg/Kg	11/07/20	11:10	SN	451989
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**51.7**		%	11/07/20	11:10	SN	451989

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/5/20 1:38:00PM
Prep Batch ID: 1126817 **Prep Analyst:** JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	21:18	JZ	451935
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	21:18	JZ	451935
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	21:18	JZ	451935
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	21:18	JZ	451935
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	21:18	JZ	451935
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	21:18	JZ	451935
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**152**	S	%	11/05/20	21:18	JZ	451935
(S) Toluene-d8	SW8260B		55.2 - 133		**129**		%	11/05/20	21:18	JZ	451935
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**132**		%	11/05/20	21:18	JZ	451935

NOTE: S-Surrogate recoveries out of limit-high bias. Data deemed acceptable as no target analytes were observed in the sample.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/5/20 1:38:00PM
Prep Batch ID: 1126820 **Prep Analyst:** JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	21:18	JZ	451935
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**42.0**	S	%	11/05/20	21:18	JZ	451935

NOTE: Surrogate recovery was outside the control limit due to matrix interference.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	S-36-10-C@10'	**Lab Sample ID:**	2011037-008A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 12:04		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/5/20 2:38:00PM
Prep Batch ID: 1126811 **Prep Analyst:** HLEE

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**5.93**	x	mg/Kg	11/07/20	12:20	SN	451989
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**23.0**		mg/Kg	11/07/20	12:20	SN	451989
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**55.6**		%	11/07/20	12:20	SN	451989

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Prep Method: 5035 **Prep Batch Date/Time:** 11/5/20 1:38:00PM
Prep Batch ID: 1126817 **Prep Analyst:** JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/05/20	21:47	JZ	451935
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/05/20	21:47	JZ	451935
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/05/20	21:47	JZ	451935
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	21:47	JZ	451935
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/05/20	21:47	JZ	451935
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/05/20	21:47	JZ	451935
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**148**	S	%	11/05/20	21:47	JZ	451935
(S) Toluene-d8	SW8260B		55.2 - 133		**119**		%	11/05/20	21:47	JZ	451935
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**115**		%	11/05/20	21:47	JZ	451935

NOTE: S-Surrogate recoveries out of limit-high bias. Data deemed acceptable as no target analytes were observed in the sample.

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/5/20 1:38:00PM
Prep Batch ID: 1126820 **Prep Analyst:** JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/05/20	21:47	JZ	451935
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**58.3**		%	11/05/20	21:47	JZ	451935

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011037	**Prep Method:**	3546_TPHSG	**Prep Date:**	11/05/20	**Prep Batch:**	1126811
Matrix:	Soil	**Analytical Method:**	SW8015B	**Analyzed Date:**	11/7/2020	**Analytical Batch:**	451989
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Diesel (SG)	0.85	2.0	ND	
TPH as Motor Oil (SG)	3.2	10	ND	
Pentacosane (S)			93.6	

Work Order:	2011037	**Prep Method:**	5035	**Prep Date:**	11/05/20	**Prep Batch:**	1126817
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451935
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	1.2	10	ND	
Chloromethane	1.8	10	ND	
Vinyl Chloride	2.0	10	ND	
Bromomethane	2.7	10	ND	
Chloroethane	3.0	10	ND	
Trichlorofluoromethane	2.1	10	ND	
1,1-Dichloroethene	2.0	10	ND	
Freon 113	1.9	10	ND	
Methylene Chloride	7.1	10	ND	
trans-1,2-Dichloroethene	2.1	10	ND	
MTBE	2.3	10	ND	
TBA	12	50	ND	
Diisopropyl ether	2.3	10	ND	
1,1-Dichloroethane	2.2	10	ND	
Ethyl tert-Butyl ether	2.3	10	ND	
cis-1,2-Dichloroethene	2.2	10	ND	
2,2-Dichloropropane	1.9	10	ND	
Bromochloromethane	2.3	10	ND	
Chloroform	2.4	10	ND	
Carbon Tetrachloride	2.1	10	ND	
1,1,1-Trichloroethane	2.1	10	ND	
1,1-Dichloropropene	2.0	10	ND	
Benzene	2.2	10	ND	
TAME	2.3	10	ND	
1,2-Dichloroethane	2.3	10	ND	
Trichloroethylene	1.8	10	ND	
Dibromomethane	1.8	10	ND	
1,2-Dichloropropane	1.9	10	ND	
Bromodichloromethane	2.0	10	ND	
cis-1,3-Dichloropropene	1.6	10	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011037	**Prep Method:**	5035	**Prep Date:**	11/05/20	**Prep Batch:**	1126817
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451935
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Toluene	1.8	10	ND	
Tetrachloroethylene	1.7	10	ND	
trans-1,3-Dichloropropene	1.6	10	ND	
1,1,2-Trichloroethane	1.8	10	ND	
Dibromochloromethane	1.9	10	ND	
1,3-Dichloropropane	1.8	10	ND	
1,2-Dibromoethane	1.8	10	ND	
Chlorobenzene	1.8	10	ND	
Ethylbenzene	1.7	10	ND	
1,1,1,2-Tetrachloroethane	1.9	10	ND	
m,p-Xylene	3.2	10	ND	
o-Xylene	1.7	10	ND	
Styrene	1.6	10	ND	
Bromoform	1.7	10	ND	
Isopropyl Benzene	1.6	10	ND	
n-Propylbenzene	1.6	10	ND	
Bromobenzene	1.8	10	ND	
1,1,2,2-Tetrachloroethane	1.9	10	ND	
2-Chlorotoluene	1.8	10	ND	
1,3,5-Trimethylbenzene	1.6	10	ND	
1,2,3-Trichloropropane	1.9	10	ND	
4-Chlorotoluene	1.6	10	ND	
tert-Butylbenzene	1.6	10	ND	
1,2,4-Trimethylbenzene	1.4	10	ND	
sec-Butyl Benzene	1.6	10	ND	
p-Isopropyltoluene	1.5	10	ND	
1,3-Dichlorobenzene	1.7	10	ND	
1,4-Dichlorobenzene	1.7	10	ND	
n-Butylbenzene	1.5	10	ND	
1,2-Dichlorobenzene	1.8	10	ND	
1,2-Dibromo-3-Chloropropane	1.8	10	ND	
Hexachlorobutadiene	1.4	10	ND	
1,2,4-Trichlorobenzene	1.5	10	7.7	
Naphthalene	1.7	10	5.9	
1,2,3-Trichlorobenzene	1.7	10	2.0	
2-Butanone	2.3	10	ND	
(S) Dibromofluoromethane			127	
(S) Toluene-d8			115	
(S) 4-Bromofluorobenzene			110	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011037	**Prep Method:**	5035GRO	**Prep Date:**	11/05/20	**Prep Batch:**	1126820
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451935
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
TPH as Gasoline	43	100	ND		
(S) 4-Bromofluorobenzene			65.6		

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011037	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126889
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452010
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	1.2	10	ND	
Chloromethane	1.8	10	ND	
Vinyl Chloride	2.0	10	ND	
Bromomethane	2.7	10	ND	
Chloroethane	3.0	10	ND	
Trichlorofluoromethane	2.1	10	ND	
1,1-Dichloroethene	2.0	10	ND	
Freon 113	1.9	10	ND	
Methylene Chloride	7.1	10	ND	
trans-1,2-Dichloroethene	2.1	10	ND	
MTBE	2.3	10	ND	
TBA	12	50	ND	
Diisopropyl ether	2.3	10	ND	
1,1-Dichloroethane	2.2	10	ND	
Ethyl tert-Butyl ether	2.3	10	ND	
cis-1,2-Dichloroethene	2.2	10	ND	
2,2-Dichloropropane	1.9	10	ND	
Bromochloromethane	2.3	10	ND	
Chloroform	2.4	10	ND	
Carbon Tetrachloride	2.1	10	ND	
1,1,1-Trichloroethane	2.1	10	ND	
1,1-Dichloropropene	2.0	10	ND	
Benzene	2.2	10	ND	
TAME	2.3	10	ND	
1,2-Dichloroethane	2.3	10	ND	
Trichloroethylene	1.8	10	ND	
Dibromomethane	1.8	10	ND	
1,2-Dichloropropane	1.9	10	ND	
Bromodichloromethane	2.0	10	ND	
cis-1,3-Dichloropropene	1.6	10	ND	
Toluene	1.8	10	ND	
Tetrachloroethylene	1.7	10	ND	
trans-1,3-Dichloropropene	1.6	10	ND	
1,1,2-Trichloroethane	1.8	10	ND	
Dibromochloromethane	1.9	10	ND	
1,3-Dichloropropane	1.8	10	ND	
1,2-Dibromoethane	1.8	10	ND	
Chlorobenzene	1.8	10	ND	
Ethylbenzene	1.7	10	ND	
1,1,1,2-Tetrachloroethane	1.9	10	ND	
m,p-Xylene	3.2	10	ND	
o-Xylene	1.7	10	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011037	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126889
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452010
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Styrene	1.6	10	ND	
Bromoform	1.7	10	ND	
Isopropyl Benzene	1.6	10	ND	
n-Propylbenzene	1.6	10	ND	
Bromobenzene	1.8	10	ND	
1,1,2,2-Tetrachloroethane	1.9	10	ND	
2-Chlorotoluene	1.8	10	ND	
1,3,5-Trimethylbenzene	1.6	10	2.3	
1,2,3-Trichloropropane	1.9	10	ND	
4-Chlorotoluene	1.6	10	ND	
tert-Butylbenzene	1.6	10	1.8	
1,2,4-Trimethylbenzene	1.4	10	2.3	
sec-Butyl Benzene	1.6	10	ND	
p-Isopropyltoluene	1.5	10	3.1	
1,3-Dichlorobenzene	1.7	10	ND	
1,4-Dichlorobenzene	1.7	10	ND	
n-Butylbenzene	1.5	10	1.6	
1,2-Dichlorobenzene	1.8	10	ND	
1,2-Dibromo-3-Chloropropane	1.8	10	ND	
Hexachlorobutadiene	1.4	10	ND	
1,2,4-Trichlorobenzene	1.5	10	7.5	
Naphthalene	1.7	10	5.3	
1,2,3-Trichlorobenzene	1.7	10	1.7	
2-Butanone	2.3	10	3.7	
4-Methyl-2-Pentanone (MIBK)	2.0	50	5.2	
Hexachloroethane	5.0	10	ND	
1,4-Dioxane	100	200	ND	
2-Hexanone	5.0	20	ND	
Acetone	8.2	20	ND	
(S) Dibromofluoromethane			137	
(S) Toluene-d8			118	
(S) 4-Bromofluorobenzene			112	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011037	**Prep Method:**	5035GRO	**Prep Date:**	11/06/20	**Prep Batch:**	1126890
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	452010
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
TPH as Gasoline	43	100	ND		
(S) 4-Bromofluorobenzene			67.1		

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011037	**Prep Method:**	3546_TPHSG	**Prep Date:**	11/05/20	**Prep Batch:**	1126811
Matrix:	Soil	**Analytical Method:**	SW8015B	**Analyzed Date:**	11/7/2020	**Analytical Batch:**	451989
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	1.7	4.0	ND	25.0	79.2	76.2	3.60	40 - 110	30	
Pentacosane (S)			ND	200	63.5	60.8		40 - 129		

Work Order:	2011037	**Prep Method:**	5035	**Prep Date:**	11/05/20	**Prep Batch:**	1126817
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451935
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	2.0	10	ND	50.0	83.4	101	18.7	53.7 - 139	30	
Benzene	2.2	10	ND	50.0	88.2	109	20.7	66.5 - 135	30	
Trichloroethylene	1.8	10	ND	50.0	89.9	111	21.3	57.5 - 150	30	
Toluene	1.8	10	ND	50.0	91.6	113	20.7	56.8 - 134	30	
Chlorobenzene	1.8	10	ND	50.0	89.1	108	19.3	57.4 - 134	30	
(S) Dibromofluoromethane				50.0	106	117		59.8 - 148		
(S) Toluene-d8				50.0	102	117		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	99.2	113		55.8 - 141		

Work Order:	2011037	**Prep Method:**	5035	**Prep Date:**	11/05/20	**Prep Batch:**	1126817
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451935
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
MTBE	2.34	10.0		50.0	90.2	116	24.7	70 - 130	30	
Benzene	2.2	10		50.0	88.2	109	20.7	66.5 - 135	30	
Ethylbenzene	1.65	10.0		50.0	90.5	111	20.1	70 - 130	30	
Toluene	1.82	10		50.0	91.6	113	20.7	56.8 - 134	30	
m,p-Xylene	3.16	10.0		100	95.1	116	19.8	70 - 130	30	
o-Xylene	1.73	10.0		50.0	85.3	103	18.5	70 - 130	30	
(S) Dibromofluoromethane				50.0	106	117		59.8 - 148		
(S) Toluene-d8				50.0	102	117		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	99.2	113		55.8 - 141		

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011037	**Prep Method:**	5035GRO	**Prep Date:**	11/05/20	**Prep Batch:**	1126820
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/6/2020	**Analytical Batch:**	451935
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	43	100	ND	1000	85.4	81.6	4.55	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	109	93.7		43.9 - 127		

Work Order:	2011037	**Prep Method:**	5035	**Prep Date:**	11/06/20	**Prep Batch:**	1126889
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/7/2020	**Analytical Batch:**	452010
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
MTBE	2.34	10.0	ND	50.0	101	102	0.592	70 - 130	30	
Benzene	2.2	10	ND	50.0	98.1	101	2.41	66.5 - 135	30	
Ethylbenzene	1.65	10.0	ND	50.0	104	106	2.10	70 - 130	30	
Toluene	1.82	10	ND	50.0	106	106	0.188	56.8 - 134	30	
m,p-Xylene	3.16	10.0	ND	100	109	111	1.82	70 - 130	30	
o-Xylene	1.73	10.0	ND	50.0	94.2	96.8	2.72	70 - 130	30	
(S) Dibromofluoromethane				50.0	99.1	102		59.8 - 148		
(S) Toluene-d8				50.0	101	104		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	99.2	104		55.8 - 141		

Work Order:	2011037	**Prep Method:**	5035GRO	**Prep Date:**	11/06/20	**Prep Batch:**	1126890
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/7/2020	**Analytical Batch:**	452010
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	43	100	ND	1000	85.0	83.7	1.54	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	80.7	84.9		43.9 - 127		

Torrent LABORATORY, INC.

MS/MSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011037	**Prep Method:**	3546_TPHSG	**Prep Date:**	11/05/20	**Prep Batch:**	1126811
Matrix:	**Soil**	**Analytical Method:**	SW8015B	**Analyzed Date:**	11/7/2020	**Analytical Batch:**	451989
Spiked Sample:	2011037-007A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	8.50	20.0	61.6	25.0	0	-89.2	4.48	40 - 110	30	S,x
Pentacosane (S)				200	51.8	52.5		40 - 129		

Work Order:	2011037	**Prep Method:**	5035	**Prep Date:**	11/05/20	**Prep Batch:**	1126817
Matrix:	**Soil**	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	451935
Spiked Sample:	2011037-001A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.0020	0.010	ND	0.05	89.1	104	15.3	55 - 125	30	
Benzene	0.0022	0.010	ND	0.05	102	119	15.3	55 - 125	30	
Trichloroethylene	0.0018	0.010	0.0112	0.05	90.3	113	18.2	55 - 125	30	
Toluene	0.0018	0.010	ND	0.05	104	117	11.2	55 - 125	30	
Chlorobenzene	0.0018	0.010	ND	0.05	91.1	108	17.3	55 - 125	30	
(S) Dibromofluoromethane				50	127	131		59.8 - 148		
(S) Toluene-d8				50	114	117		55.2 - 133		
(S) 4-Bromofluorobenzene				50	110	117		55.8 - 141		

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg/m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the analyte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: Engeo (San Ramon)

Project Name: Brindle Gate

Work Order No.: 2011037

Date and Time Received: 11/4/2020 1:15:00PM

Received By: Lorna Imbat

Physically Logged By: Lorna Imbat

Checklist Completed By: Lorna Imbat

Carrier Name: First Courier

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes			
Container/Temp Blank temperature in compliance?	Yes	Temperature:	2.0	°C
Water-VOA vials have zero headspace?	No VOA vials submitted			
Water-pH acceptable upon receipt?	N/A			

pH Checked by: n/aq

pH Adjusted by: n/a

Comments:

Torrent LABORATORY, INC.

Login Summary Report

Client ID: TL5123 Engeo (San Ramon)
Project Name: Brindle Gate
Project # : 3359.210.001
Report Due Date: 11/9/2020

QC Level: II
TAT Requested: 3 Day Std:3
Date Received: 11/4/2020
Time Received: 1:15 pm

Comments:

Work Order # : ***2011037***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2011037-001A	S-36-10-S@5'	11/03/20 11:20	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
Sample Note:	MBTEX only.							
2011037-002A	S-36-10-S@10'	11/03/20 11:22	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011037-003A	S-36-10-N@5'	11/03/20 11:33	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011037-004A	S-36-10-N@10'	11/03/20 11:42	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011037-005A	S-36-10-W@5'	11/03/20 11:56	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011037-006A	S-36-10-W@10'	11/03/20 11:58	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011037-007A	S-36-10-C@5'	11/03/20 12:02	Soil	05/02/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011037-008A	S-36-10-C@10'	11/03/20 12:04	Soil	05/02/21			TPHDOSG_S_8015B	

Torrent LABORATORY, INC.

Login Summary Report

Client ID:	TL5123	Engeo (San Ramon)	**QC Level:**	II
Project Name:	Brindle Gate		**TAT Requested:**	3 Day Std:3
Project # :	3359.210.001		**Date Received:**	11/4/2020
Report Due Date:	11/9/2020		**Time Received:**	1:15 pm

Comments:

Work Order # : ***2011037***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
							VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	

Torrent LABORATORY, INC.

CHAIN OF CUSTODY RECORD

2011037

PROJECT NUMBER: 3359.210.001 | PROJECT NAME: Brindle Gate

SAMPLED BY: (SIGNATURE/PRINT) Taunee Werts

PROJECT MANAGER: (SIGNATURE/PRINT) Brooke Spruit

ROUTING: E-MAIL: Bspruit, twerts, Smunger@engeo.com

SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	TPH-g	BTEX & 8260	MTBE	TPH-d/mo sil Cleanup & 015	TO-15	REMARKS / REQUIRED DETECTION LIMITS
S-3-10-S@5'	11/3/20	11:20	Soil	1	Sleeve	N/A	X	X	X	X		-001A
↓ @10'		11:22					X	X	X	X		-002A
S-3-10-N@5'		11:33					X	X	X	X		-003A
↓ @10'		11:42					X	X	X	X		-004A
S-3-10-W@5'		11:56					X	X	X	X		-005A
↓ @10'		11:58					X	X	X	X		-006A
S-3-10-C@5'		12:02					X	X	X	X		-007A
↓ @10'		12:04					X	X	X	X		-008A
SG-3-10		10:15	Air		1L canister		X				X	
SG-TF1		12:45					X				X	
SG-TF2		12:58					X				X	
SG-TF3		13:06					X				X	
SG-31-10		13:26	↓	↓	↓	↓	X				X	
SG-DUP												

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
	11/4/20 07:00			11/4/20 12:34	
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE/TIME	REMARKS	

DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT; COPY TO PROJECT FIELD FILES

FC Temp = #1

ENGEO INCORPORATED
2010 CROW CANYON PLACE SUITE 250
SAN RAMON, CALIFORNIA 94583
(925) 866-9000 FAX (888) 279-2698
WWW.ENGEO.COM

Engeo (San Ramon)
2010 Crow Canyon Place,#250
San Ramon, California 94583
Tel: (925) 866-9000
Fax: (925) 866-0199

RE: Brindle Gate

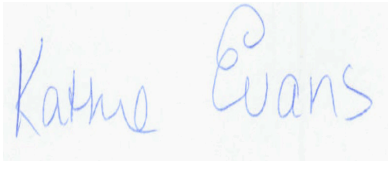
Work Order No.: 2011038 Rev: 1

Dear Brooke Spruit:

Torrent Laboratory, Inc. received 5 sample(s) on November 04, 2020 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.



Kathie Evans
Project Manager

November 09, 2020
Date

Date: 11/9/2020

Client: Engeo (San Ramon)

Project: Brindle Gate

Work Order: 2011038

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

REVISIONS

Report revised to include Methane and Oxygen data.

Rev. 1 (11/20/20)

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date Received: 11/04/20
Date Reported: 11/09/20

SG-3-10 2011038-001

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3
Oxygen	D1946	6.1	0.064	0.31	15%
Carbon Disulfide	ETO15	1	0.37	1.6	2.4
Acetone	ETO15	1	0.40	12	17
tert-Butanol	ETO15	1	0.62	1.5	11
Chloroform	ETO15	1	0.97	2.4	4.3
2-Butanone (MEK)	ETO15	1	0.39	1.5	8.8
Tetrahydrofuran	ETO15	1	0.45	1.5	52
Benzene	ETO15	1	0.44	1.6	3.8
Toluene	ETO15	1	0.75	1.9	21
Tetrachloroethylene	ETO15	1	1.5	3.4	6.0
Ethyl Benzene	ETO15	1	0.63	2.2	5.3
m,p-Xylene	ETO15	1	0.98	2.2	17
o-Xylene	ETO15	1	0.30	2.2	6.5
4-Ethyl Toluene	ETO15	1	0.55	2.5	5.6
1,2,4-Trimethylbenzene	ETO15	1	0.60	2.5	4.9

SG-TF1 2011038-002

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3
Oxygen	D1946	4.1	0.043	0.21	14%
Carbon Disulfide	ETO15	1	0.37	1.6	8.2
Hexane	ETO15	1	0.46	1.8	9.8
tert-Butanol	ETO15	1	0.62	1.5	11
Chloroform	ETO15	1	0.97	2.4	8.7
Benzene	ETO15	1	0.44	1.6	4.8
Toluene	ETO15	1	0.75	1.9	8.6
Tetrachloroethylene	ETO15	1	1.5	3.4	4.6
Ethyl Benzene	ETO15	1	0.63	2.2	20
m,p-Xylene	ETO15	1	0.98	2.2	72
o-Xylene	ETO15	1	0.30	2.2	20
1,2,4-Trimethylbenzene	ETO15	1	0.60	2.5	2.6

SG-TF2 2011038-003

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3
Oxygen	D1946	4.2	0.044	0.21	14%
Carbon Disulfide	ETO15	1	0.37	1.6	6.6
Hexane	ETO15	1	0.46	1.8	9.8
Chloroform	ETO15	1	0.97	2.4	4.1
Benzene	ETO15	1	0.44	1.6	3.5
Toluene	ETO15	1	0.75	1.9	7.3
Tetrachloroethylene	ETO15	1	1.5	3.4	4.7

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date Received: 11/04/20
Date Reported: 11/09/20

SG-TF3 2011038-004

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3
Oxygen	D1946	5.8	0.061	0.29	15%
1,3-Butadiene	ETO15	1	0.34	1.1	1.1
Carbon Disulfide	ETO15	1	0.37	1.6	6.3
Acetone	ETO15	1	0.40	12	83
Hexane	ETO15	1	0.46	1.8	6.4
tert-Butanol	ETO15	1	0.62	1.5	7.3
2-Butanone (MEK)	ETO15	1	0.39	1.5	33
Benzene	ETO15	1	0.44	1.6	5.1
Toluene	ETO15	1	0.75	1.9	10
4-Methyl-2-Pentanone (MIBK)	ETO15	1	0.75	2.1	13
Tetrachloroethylene	ETO15	1	1.5	3.4	5.5
2-Hexanone	ETO15	1	0.65	2.1	12
Ethyl Benzene	ETO15	1	0.63	2.2	2.8
m,p-Xylene	ETO15	1	0.98	2.2	6.8
o-Xylene	ETO15	1	0.30	2.2	2.2
4-Ethyl Toluene	ETO15	1	0.55	2.5	2.8
1,2,4-Trimethylbenzene	ETO15	1	0.60	2.5	4.4

SG-39 2011038-005

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3
Oxygen	D1946	4.5	0.047	0.23	14%
Carbon Disulfide	ETO15	30	11	47	33
Acetone	ETO15	30	12	360	25
Hexane	ETO15	30	14	53	24
Tetrahydrofuran	ETO15	30	13	44	44
Toluene	ETO15	30	23	57	200
Ethyl Benzene	ETO15	30	19	65	1400
m,p-Xylene	ETO15	30	29	65	4800
o-Xylene	ETO15	30	9.1	65	1300

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	SG-3-10	**Lab Sample ID:**	2011038-001A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 10:15	**Certified Clean WO # :**	
Canister/Tube ID:	6109	**Received PSI :**	11.0
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	FG-P	**Prep Batch Date/Time:**	11/18/20 7:35:00PM
Prep Batch ID:	1127231	**Prep Analyst:**	BPATEL

Parameters:	Analysis Method	DF	MDL %	PQL %	Results %	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Oxygen	D1946	6.10	0.064	0.31	15			11/18/20	20:49	BP	452322
Methane	D1946	6.10	0.014	0.031	ND			11/18/20	20:49	BP	452322

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/5/20 6:00:00PM
Prep Batch ID:	1126880	**Prep Analyst:**	BALI

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	ETO15	1.00	1.6	2.5	ND	ND		11/06/20	12:35	BA	452006
1,1-Difluoroethane	ETO15	1.00	0.35	14	ND	ND		11/06/20	12:35	BA	452006
1,2-Dichlorotetrafluoroethane	ETO15	1.00	1.4	3.5	ND	ND		11/06/20	12:35	BA	452006
Chloromethane	ETO15	1.00	2.0	4.1	ND	ND		11/06/20	12:35	BA	452006
Vinyl Chloride	ETO15	1.00	0.23	1.3	ND	ND		11/06/20	12:35	BA	452006
1,3-Butadiene	ETO15	1.00	0.34	1.1	ND	ND		11/06/20	12:35	BA	452006
Bromomethane	ETO15	1.00	0.66	1.9	ND	ND		11/06/20	12:35	BA	452006
Chloroethane	ETO15	1.00	0.81	1.3	ND	ND		11/06/20	12:35	BA	452006
Trichlorofluoromethane	ETO15	1.00	0.56	2.8	ND	ND		11/06/20	12:35	BA	452006
1,1-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		11/06/20	12:35	BA	452006
Freon 113	ETO15	1.00	1.0	3.8	ND	ND		11/06/20	12:35	BA	452006
Carbon Disulfide	ETO15	1.00	0.37	1.6	2.4	0.77		11/06/20	12:35	BA	452006
2-Propanol (Isopropyl Alcohol)	ETO15	1.00	1.3	12	ND	ND		11/06/20	12:35	BA	452006
Methylene Chloride	ETO15	1.00	0.70	10	ND	ND		11/06/20	12:35	BA	452006
Acetone	ETO15	1.00	0.40	12	17	7.14		11/06/20	12:35	BA	452006
trans-1,2-Dichloroethene	ETO15	1.00	0.48	2.0	ND	ND		11/06/20	12:35	BA	452006
Hexane	ETO15	1.00	0.46	1.8	ND	ND		11/06/20	12:35	BA	452006
MTBE	ETO15	1.00	0.44	1.8	ND	ND		11/06/20	12:35	BA	452006
tert-Butanol	ETO15	1.00	0.62	1.5	11	3.63		11/06/20	12:35	BA	452006
Diisopropyl ether (DIPE)	ETO15	1.00	0.74	2.1	ND	ND		11/06/20	12:35	BA	452006
1,1-Dichloroethane	ETO15	1.00	0.54	2.0	ND	ND		11/06/20	12:35	BA	452006
ETBE	ETO15	1.00	0.33	2.1	ND	ND		11/06/20	12:35	BA	452006
cis-1,2-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		11/06/20	12:35	BA	452006
Chloroform	ETO15	1.00	0.97	2.4	4.3	0.88		11/06/20	12:35	BA	452006

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	SG-3-10	**Lab Sample ID:**	2011038-001A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 10:15	**Certified Clean WO # :**	
Canister/Tube ID:	6109	**Received PSI :**	11.0
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/5/20	6:00:00PM
Prep Batch ID:	1126880	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Vinyl Acetate	ETO15	1.00	0.76	1.8	ND	ND		11/06/20	12:35	BA	452006
Carbon Tetrachloride	ETO15	1.00	1.1	3.1	ND	ND		11/06/20	12:35	BA	452006
1,1,1-Trichloroethane	ETO15	1.00	0.79	2.7	ND	ND		11/06/20	12:35	BA	452006
2-Butanone (MEK)	ETO15	1.00	0.39	1.5	8.8	2.98		11/06/20	12:35	BA	452006
Ethyl Acetate	ETO15	1.00	0.48	1.8	ND	ND		11/06/20	12:35	BA	452006
Tetrahydrofuran	ETO15	1.00	0.45	1.5	52	17.63		11/06/20	12:35	BA	452006
Benzene	ETO15	1.00	0.44	1.6	3.8	1.19		11/06/20	12:35	BA	452006
TAME	ETO15	1.00	0.67	2.1	ND	ND		11/06/20	12:35	BA	452006
1,2-Dichloroethane (EDC)	ETO15	1.00	0.42	2.0	ND	ND		11/06/20	12:35	BA	452006
Trichloroethylene	ETO15	1.00	0.81	2.7	ND	ND		11/06/20	12:35	BA	452006
1,2-Dichloropropane	ETO15	1.00	0.76	2.3	ND	ND		11/06/20	12:35	BA	452006
Bromodichloromethane	ETO15	1.00	0.74	3.4	ND	ND		11/06/20	12:35	BA	452006
1,4-Dioxane	ETO15	1.00	1.8	3.6	ND	ND		11/06/20	12:35	BA	452006
trans-1,3-Dichloropropene	ETO15	1.00	1.1	2.3	ND	ND		11/06/20	12:35	BA	452006
Toluene	ETO15	1.00	0.75	1.9	21	5.57		11/06/20	12:35	BA	452006
4-Methyl-2-Pentanone (MIBK)	ETO15	1.00	0.75	2.1	ND	ND		11/06/20	12:35	BA	452006
cis-1,3-Dichloropropene	ETO15	1.00	0.42	2.3	ND	ND		11/06/20	12:35	BA	452006
Tetrachloroethylene	ETO15	1.00	1.5	3.4	6.0	0.88		11/06/20	12:35	BA	452006
1,1,2-Trichloroethane	ETO15	1.00	0.58	2.7	ND	ND		11/06/20	12:35	BA	452006
Dibromochloromethane	ETO15	1.00	1.1	4.3	ND	ND		11/06/20	12:35	BA	452006
1,2-Dibromoethane (EDB)	ETO15	1.00	0.74	3.8	ND	ND		11/06/20	12:35	BA	452006
2-Hexanone	ETO15	1.00	0.65	2.1	ND	ND		11/06/20	12:35	BA	452006
Ethyl Benzene	ETO15	1.00	0.63	2.2	5.3	1.22		11/06/20	12:35	BA	452006
Chlorobenzene	ETO15	1.00	0.60	2.3	ND	ND		11/06/20	12:35	BA	452006
1,1,1,2-Tetrachloroethane	ETO15	1.00	0.84	3.4	ND	ND		11/06/20	12:35	BA	452006
m,p-Xylene	ETO15	1.00	0.98	2.2	17	3.92		11/06/20	12:35	BA	452006
o-Xylene	ETO15	1.00	0.30	2.2	6.5	1.50		11/06/20	12:35	BA	452006
Styrene	ETO15	1.00	0.46	2.1	ND	ND		11/06/20	12:35	BA	452006
Bromoform	ETO15	1.00	1.3	5.2	ND	ND		11/06/20	12:35	BA	452006
1,1,2,2-Tetrachloroethane	ETO15	1.00	0.82	3.4	ND	ND		11/06/20	12:35	BA	452006
4-Ethyl Toluene	ETO15	1.00	0.55	2.5	5.6	1.14		11/06/20	12:35	BA	452006
1,3,5-Trimethylbenzene	ETO15	1.00	0.30	2.5	ND	ND		11/06/20	12:35	BA	452006
1,2,4-Trimethylbenzene	ETO15	1.00	0.60	2.5	4.9	1.00		11/06/20	12:35	BA	452006

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	SG-3-10	**Lab Sample ID:**	2011038-001A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 10:15	**Certified Clean WO # :**	
Canister/Tube ID:	6109	**Received PSI :**	11.0
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/5/20	6:00:00PM
Prep Batch ID:	1126880	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
1,4-Dichlorobenzene	ETO15	1.00	0.75	3.0	ND	ND		11/06/20	12:35	BA	452006
1,3-Dichlorobenzene	ETO15	1.00	1.3	3.0	ND	ND		11/06/20	12:35	BA	452006
1,2-Dichlorobenzene	ETO15	1.00	1.1	3.0	ND	ND		11/06/20	12:35	BA	452006
Hexachlorobutadiene	ETO15	1.00	1.9	5.3	ND	ND		11/06/20	12:35	BA	452006
1,2,4-Trichlorobenzene	ETO15	1.00	2.2	3.7	ND	ND		11/06/20	12:35	BA	452006
Naphthalene	ETO15	1.00	1.3	2.6	ND	ND		11/06/20	12:35	BA	452006
(S) 4-Bromofluorobenzene	ETO15	1.00	50	150	93 %			11/06/20	12:35	BA	452006

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	SG-TF1	**Lab Sample ID:**	2011038-002A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 12:45	**Certified Clean WO # :**	
Canister/Tube ID:	N3952	**Received PSI :**	12.3
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	FG-P	**Prep Batch Date/Time:**	11/18/20 7:35:00PM
Prep Batch ID:	1127231	**Prep Analyst:**	BPATEL

Parameters:	Analysis Method	DF	MDL %	PQL %	Results %	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Oxygen	D1946	4.10	0.043	0.21	14			11/18/20	21:07	BP	452322
Methane	D1946	4.10	0.0096	0.021	ND			11/18/20	21:07	BP	452322

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/5/20 6:00:00PM
Prep Batch ID:	1126880	**Prep Analyst:**	BALI

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	ETO15	1.00	1.6	2.5	ND	ND		11/06/20	13:00	BA	452006
1,1-Difluoroethane	ETO15	1.00	0.35	14	ND	ND		11/06/20	13:00	BA	452006
1,2-Dichlorotetrafluoroethane	ETO15	1.00	1.4	3.5	ND	ND		11/06/20	13:00	BA	452006
Chloromethane	ETO15	1.00	2.0	4.1	ND	ND		11/06/20	13:00	BA	452006
Vinyl Chloride	ETO15	1.00	0.23	1.3	ND	ND		11/06/20	13:00	BA	452006
1,3-Butadiene	ETO15	1.00	0.34	1.1	ND	ND		11/06/20	13:00	BA	452006
Bromomethane	ETO15	1.00	0.66	1.9	ND	ND		11/06/20	13:00	BA	452006
Chloroethane	ETO15	1.00	0.81	1.3	ND	ND		11/06/20	13:00	BA	452006
Trichlorofluoromethane	ETO15	1.00	0.56	2.8	ND	ND		11/06/20	13:00	BA	452006
1,1-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		11/06/20	13:00	BA	452006
Freon 113	ETO15	1.00	1.0	3.8	ND	ND		11/06/20	13:00	BA	452006
Carbon Disulfide	ETO15	1.00	0.37	1.6	8.2	2.64		11/06/20	13:00	BA	452006
2-Propanol (Isopropyl Alcohol)	ETO15	1.00	1.3	12	ND	ND		11/06/20	13:00	BA	452006
Methylene Chloride	ETO15	1.00	0.70	10	ND	ND		11/06/20	13:00	BA	452006
Acetone	ETO15	1.00	0.40	12	ND	ND		11/06/20	13:00	BA	452006
trans-1,2-Dichloroethene	ETO15	1.00	0.48	2.0	ND	ND		11/06/20	13:00	BA	452006
Hexane	ETO15	1.00	0.46	1.8	9.8	2.78		11/06/20	13:00	BA	452006
MTBE	ETO15	1.00	0.44	1.8	ND	ND		11/06/20	13:00	BA	452006
tert-Butanol	ETO15	1.00	0.62	1.5	11	3.63		11/06/20	13:00	BA	452006
Diisopropyl ether (DIPE)	ETO15	1.00	0.74	2.1	ND	ND		11/06/20	13:00	BA	452006
1,1-Dichloroethane	ETO15	1.00	0.54	2.0	ND	ND		11/06/20	13:00	BA	452006
ETBE	ETO15	1.00	0.33	2.1	ND	ND		11/06/20	13:00	BA	452006
cis-1,2-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		11/06/20	13:00	BA	452006
Chloroform	ETO15	1.00	0.97	2.4	8.7	1.78		11/06/20	13:00	BA	452006

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	SG-TF1	**Lab Sample ID:**	2011038-002A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 12:45	**Certified Clean WO # :**	
Canister/Tube ID:	N3952	**Received PSI :**	12.3
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/5/20	6:00:00PM
Prep Batch ID:	1126880	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Vinyl Acetate	ETO15	1.00	0.76	1.8	ND	ND		11/06/20	13:00	BA	452006
Carbon Tetrachloride	ETO15	1.00	1.1	3.1	ND	ND		11/06/20	13:00	BA	452006
1,1,1-Trichloroethane	ETO15	1.00	0.79	2.7	ND	ND		11/06/20	13:00	BA	452006
2-Butanone (MEK)	ETO15	1.00	0.39	1.5	ND	ND		11/06/20	13:00	BA	452006
Ethyl Acetate	ETO15	1.00	0.48	1.8	ND	ND		11/06/20	13:00	BA	452006
Tetrahydrofuran	ETO15	1.00	0.45	1.5	ND	ND		11/06/20	13:00	BA	452006
Benzene	ETO15	1.00	0.44	1.6	4.8	1.50		11/06/20	13:00	BA	452006
TAME	ETO15	1.00	0.67	2.1	ND	ND		11/06/20	13:00	BA	452006
1,2-Dichloroethane (EDC)	ETO15	1.00	0.42	2.0	ND	ND		11/06/20	13:00	BA	452006
Trichloroethylene	ETO15	1.00	0.81	2.7	ND	ND		11/06/20	13:00	BA	452006
1,2-Dichloropropane	ETO15	1.00	0.76	2.3	ND	ND		11/06/20	13:00	BA	452006
Bromodichloromethane	ETO15	1.00	0.74	3.4	ND	ND		11/06/20	13:00	BA	452006
1,4-Dioxane	ETO15	1.00	1.8	3.6	ND	ND		11/06/20	13:00	BA	452006
trans-1,3-Dichloropropene	ETO15	1.00	1.1	2.3	ND	ND		11/06/20	13:00	BA	452006
Toluene	ETO15	1.00	0.75	1.9	8.6	2.28		11/06/20	13:00	BA	452006
4-Methyl-2-Pentanone (MIBK)	ETO15	1.00	0.75	2.1	ND	ND		11/06/20	13:00	BA	452006
cis-1,3-Dichloropropene	ETO15	1.00	0.42	2.3	ND	ND		11/06/20	13:00	BA	452006
Tetrachloroethylene	ETO15	1.00	1.5	3.4	4.6	0.68		11/06/20	13:00	BA	452006
1,1,2-Trichloroethane	ETO15	1.00	0.58	2.7	ND	ND		11/06/20	13:00	BA	452006
Dibromochloromethane	ETO15	1.00	1.1	4.3	ND	ND		11/06/20	13:00	BA	452006
1,2-Dibromoethane (EDB)	ETO15	1.00	0.74	3.8	ND	ND		11/06/20	13:00	BA	452006
2-Hexanone	ETO15	1.00	0.65	2.1	ND	ND		11/06/20	13:00	BA	452006
Ethyl Benzene	ETO15	1.00	0.63	2.2	20	4.61		11/06/20	13:00	BA	452006
Chlorobenzene	ETO15	1.00	0.60	2.3	ND	ND		11/06/20	13:00	BA	452006
1,1,1,2-Tetrachloroethane	ETO15	1.00	0.84	3.4	ND	ND		11/06/20	13:00	BA	452006
m,p-Xylene	ETO15	1.00	0.98	2.2	72	16.59		11/06/20	13:00	BA	452006
o-Xylene	ETO15	1.00	0.30	2.2	20	4.61		11/06/20	13:00	BA	452006
Styrene	ETO15	1.00	0.46	2.1	ND	ND		11/06/20	13:00	BA	452006
Bromoform	ETO15	1.00	1.3	5.2	ND	ND		11/06/20	13:00	BA	452006
1,1,2,2-Tetrachloroethane	ETO15	1.00	0.82	3.4	ND	ND		11/06/20	13:00	BA	452006
4-Ethyl Toluene	ETO15	1.00	0.55	2.5	ND	ND		11/06/20	13:00	BA	452006
1,3,5-Trimethylbenzene	ETO15	1.00	0.30	2.5	ND	ND		11/06/20	13:00	BA	452006
1,2,4-Trimethylbenzene	ETO15	1.00	0.60	2.5	2.6	0.53		11/06/20	13:00	BA	452006

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	SG-TF1	**Lab Sample ID:**	2011038-002A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 12:45	**Certified Clean WO # :**	
Canister/Tube ID:	N3952	**Received PSI :**	12.3
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/5/20	6:00:00PM
Prep Batch ID:	1126880	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
1,4-Dichlorobenzene	ETO15	1.00	0.75	3.0	ND	ND		11/06/20	13:00	BA	452006
1,3-Dichlorobenzene	ETO15	1.00	1.3	3.0	ND	ND		11/06/20	13:00	BA	452006
1,2-Dichlorobenzene	ETO15	1.00	1.1	3.0	ND	ND		11/06/20	13:00	BA	452006
Hexachlorobutadiene	ETO15	1.00	1.9	5.3	ND	ND		11/06/20	13:00	BA	452006
1,2,4-Trichlorobenzene	ETO15	1.00	2.2	3.7	ND	ND		11/06/20	13:00	BA	452006
Naphthalene	ETO15	1.00	1.3	2.6	ND	ND		11/06/20	13:00	BA	452006
(S) 4-Bromofluorobenzene	ETO15	1.00	50	150	91 %			11/06/20	13:00	BA	452006

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	SG-TF2	**Lab Sample ID:**	2011038-003A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 12:58	**Certified Clean WO # :**	
Canister/Tube ID:	N11712	**Received PSI :**	13.0
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	FG-P	**Prep Batch Date/Time:**	11/18/20 7:35:00PM
Prep Batch ID:	1127231	**Prep Analyst:**	BPATEL

Parameters:	Analysis Method	DF	MDL %	PQL %	Results %	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Oxygen	D1946	4.20	0.044	0.21	14			11/18/20	21:29	BP	452322
Methane	D1946	4.20	0.0098	0.021	ND			11/18/20	21:29	BP	452322

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/5/20 6:00:00PM
Prep Batch ID:	1126880	**Prep Analyst:**	BALI

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	ETO15	1.00	1.6	2.5	ND	ND		11/06/20	13:25	BA	452006
1,1-Difluoroethane	ETO15	1.00	0.35	14	ND	ND		11/06/20	13:25	BA	452006
1,2-Dichlorotetrafluoroethane	ETO15	1.00	1.4	3.5	ND	ND		11/06/20	13:25	BA	452006
Chloromethane	ETO15	1.00	2.0	4.1	ND	ND		11/06/20	13:25	BA	452006
Vinyl Chloride	ETO15	1.00	0.23	1.3	ND	ND		11/06/20	13:25	BA	452006
1,3-Butadiene	ETO15	1.00	0.34	1.1	ND	ND		11/06/20	13:25	BA	452006
Bromomethane	ETO15	1.00	0.66	1.9	ND	ND		11/06/20	13:25	BA	452006
Chloroethane	ETO15	1.00	0.81	1.3	ND	ND		11/06/20	13:25	BA	452006
Trichlorofluoromethane	ETO15	1.00	0.56	2.8	ND	ND		11/06/20	13:25	BA	452006
1,1-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		11/06/20	13:25	BA	452006
Freon 113	ETO15	1.00	1.0	3.8	ND	ND		11/06/20	13:25	BA	452006
Carbon Disulfide	ETO15	1.00	0.37	1.6	6.6	2.12		11/06/20	13:25	BA	452006
2-Propanol (Isopropyl Alcohol)	ETO15	1.00	1.3	12	ND	ND		11/06/20	13:25	BA	452006
Methylene Chloride	ETO15	1.00	0.70	10	ND	ND		11/06/20	13:25	BA	452006
Acetone	ETO15	1.00	0.40	12	ND	ND		11/06/20	13:25	BA	452006
trans-1,2-Dichloroethene	ETO15	1.00	0.48	2.0	ND	ND		11/06/20	13:25	BA	452006
Hexane	ETO15	1.00	0.46	1.8	9.8	2.78		11/06/20	13:25	BA	452006
MTBE	ETO15	1.00	0.44	1.8	ND	ND		11/06/20	13:25	BA	452006
tert-Butanol	ETO15	1.00	0.62	1.5	ND	ND		11/06/20	13:25	BA	452006
Diisopropyl ether (DIPE)	ETO15	1.00	0.74	2.1	ND	ND		11/06/20	13:25	BA	452006
1,1-Dichloroethane	ETO15	1.00	0.54	2.0	ND	ND		11/06/20	13:25	BA	452006
ETBE	ETO15	1.00	0.33	2.1	ND	ND		11/06/20	13:25	BA	452006
cis-1,2-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		11/06/20	13:25	BA	452006
Chloroform	ETO15	1.00	0.97	2.4	4.1	0.84		11/06/20	13:25	BA	452006

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	SG-TF2	**Lab Sample ID:**	2011038-003A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 12:58	**Certified Clean WO # :**	
Canister/Tube ID:	N11712	**Received PSI :**	13.0
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/5/20	6:00:00PM
Prep Batch ID:	1126880	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Vinyl Acetate	ETO15	1.00	0.76	1.8	ND	ND		11/06/20	13:25	BA	452006
Carbon Tetrachloride	ETO15	1.00	1.1	3.1	ND	ND		11/06/20	13:25	BA	452006
1,1,1-Trichloroethane	ETO15	1.00	0.79	2.7	ND	ND		11/06/20	13:25	BA	452006
2-Butanone (MEK)	ETO15	1.00	0.39	1.5	ND	ND		11/06/20	13:25	BA	452006
Ethyl Acetate	ETO15	1.00	0.48	1.8	ND	ND		11/06/20	13:25	BA	452006
Tetrahydrofuran	ETO15	1.00	0.45	1.5	ND	ND		11/06/20	13:25	BA	452006
Benzene	ETO15	1.00	0.44	1.6	3.5	1.10		11/06/20	13:25	BA	452006
TAME	ETO15	1.00	0.67	2.1	ND	ND		11/06/20	13:25	BA	452006
1,2-Dichloroethane (EDC)	ETO15	1.00	0.42	2.0	ND	ND		11/06/20	13:25	BA	452006
Trichloroethylene	ETO15	1.00	0.81	2.7	ND	ND		11/06/20	13:25	BA	452006
1,2-Dichloropropane	ETO15	1.00	0.76	2.3	ND	ND		11/06/20	13:25	BA	452006
Bromodichloromethane	ETO15	1.00	0.74	3.4	ND	ND		11/06/20	13:25	BA	452006
1,4-Dioxane	ETO15	1.00	1.8	3.6	ND	ND		11/06/20	13:25	BA	452006
trans-1,3-Dichloropropene	ETO15	1.00	1.1	2.3	ND	ND		11/06/20	13:25	BA	452006
Toluene	ETO15	1.00	0.75	1.9	7.3	1.94		11/06/20	13:25	BA	452006
4-Methyl-2-Pentanone (MIBK)	ETO15	1.00	0.75	2.1	ND	ND		11/06/20	13:25	BA	452006
cis-1,3-Dichloropropene	ETO15	1.00	0.42	2.3	ND	ND		11/06/20	13:25	BA	452006
Tetrachloroethylene	ETO15	1.00	1.5	3.4	4.7	0.69		11/06/20	13:25	BA	452006
1,1,2-Trichloroethane	ETO15	1.00	0.58	2.7	ND	ND		11/06/20	13:25	BA	452006
Dibromochloromethane	ETO15	1.00	1.1	4.3	ND	ND		11/06/20	13:25	BA	452006
1,2-Dibromoethane (EDB)	ETO15	1.00	0.74	3.8	ND	ND		11/06/20	13:25	BA	452006
2-Hexanone	ETO15	1.00	0.65	2.1	ND	ND		11/06/20	13:25	BA	452006
Ethyl Benzene	ETO15	1.00	0.63	2.2	ND	ND		11/06/20	13:25	BA	452006
Chlorobenzene	ETO15	1.00	0.60	2.3	ND	ND		11/06/20	13:25	BA	452006
1,1,1,2-Tetrachloroethane	ETO15	1.00	0.84	3.4	ND	ND		11/06/20	13:25	BA	452006
m,p-Xylene	ETO15	1.00	0.98	2.2	ND	ND		11/06/20	13:25	BA	452006
o-Xylene	ETO15	1.00	0.30	2.2	ND	ND		11/06/20	13:25	BA	452006
Styrene	ETO15	1.00	0.46	2.1	ND	ND		11/06/20	13:25	BA	452006
Bromoform	ETO15	1.00	1.3	5.2	ND	ND		11/06/20	13:25	BA	452006
1,1,2,2-Tetrachloroethane	ETO15	1.00	0.82	3.4	ND	ND		11/06/20	13:25	BA	452006
4-Ethyl Toluene	ETO15	1.00	0.55	2.5	ND	ND		11/06/20	13:25	BA	452006
1,3,5-Trimethylbenzene	ETO15	1.00	0.30	2.5	ND	ND		11/06/20	13:25	BA	452006
1,2,4-Trimethylbenzene	ETO15	1.00	0.60	2.5	ND	ND		11/06/20	13:25	BA	452006

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	SG-TF2	**Lab Sample ID:**	2011038-003A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 12:58	**Certified Clean WO # :**	
Canister/Tube ID:	N11712	**Received PSI :**	13.0
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/5/20	6:00:00PM
Prep Batch ID:	1126880	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
1,4-Dichlorobenzene	ETO15	1.00	0.75	3.0	ND	ND		11/06/20	13:25	BA	452006
1,3-Dichlorobenzene	ETO15	1.00	1.3	3.0	ND	ND		11/06/20	13:25	BA	452006
1,2-Dichlorobenzene	ETO15	1.00	1.1	3.0	ND	ND		11/06/20	13:25	BA	452006
Hexachlorobutadiene	ETO15	1.00	1.9	5.3	ND	ND		11/06/20	13:25	BA	452006
1,2,4-Trichlorobenzene	ETO15	1.00	2.2	3.7	ND	ND		11/06/20	13:25	BA	452006
Naphthalene	ETO15	1.00	1.3	2.6	ND	ND		11/06/20	13:25	BA	452006
(S) 4-Bromofluorobenzene	ETO15	1.00	50	150	100 %			11/06/20	13:25	BA	452006

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	SG-TF3	**Lab Sample ID:**	2011038-004A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 13:06	**Certified Clean WO # :**	
Canister/Tube ID:	R3566	**Received PSI :**	12.6
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	FG-P	**Prep Batch Date/Time:**	11/18/20	7:35:00PM
Prep Batch ID:	1127231	**Prep Analyst:**	BPATEL	

Parameters:	Analysis Method	DF	MDL %	PQL %	Results %	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Oxygen	D1946	5.80	0.061	0.29	15			11/19/20	9:29	BP	452322
Methane	D1946	5.80	0.014	0.029	ND			11/19/20	9:29	BP	452322

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/5/20	6:00:00PM
Prep Batch ID:	1126880	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	ETO15	1.00	1.6	2.5	ND	ND		11/06/20	15:05	BA	452006
1,1-Difluoroethane	ETO15	1.00	0.35	14	ND	ND		11/06/20	15:05	BA	452006
1,2-Dichlorotetrafluoroethane	ETO15	1.00	1.4	3.5	ND	ND		11/06/20	15:05	BA	452006
Chloromethane	ETO15	1.00	2.0	4.1	ND	ND		11/06/20	15:05	BA	452006
Vinyl Chloride	ETO15	1.00	0.23	1.3	ND	ND		11/06/20	15:05	BA	452006
1,3-Butadiene	ETO15	1.00	0.34	1.1	1.1	0.50		11/06/20	15:05	BA	452006
Bromomethane	ETO15	1.00	0.66	1.9	ND	ND		11/06/20	15:05	BA	452006
Chloroethane	ETO15	1.00	0.81	1.3	ND	ND		11/06/20	15:05	BA	452006
Trichlorofluoromethane	ETO15	1.00	0.56	2.8	ND	ND		11/06/20	15:05	BA	452006
1,1-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		11/06/20	15:05	BA	452006
Freon 113	ETO15	1.00	1.0	3.8	ND	ND		11/06/20	15:05	BA	452006
Carbon Disulfide	ETO15	1.00	0.37	1.6	6.3	2.03		11/06/20	15:05	BA	452006
2-Propanol (Isopropyl Alcohol)	ETO15	1.00	1.3	12	ND	ND		11/06/20	15:05	BA	452006
Methylene Chloride	ETO15	1.00	0.70	10	ND	ND		11/06/20	15:05	BA	452006
Acetone	ETO15	1.00	0.40	12	83	34.87		11/06/20	15:05	BA	452006
trans-1,2-Dichloroethene	ETO15	1.00	0.48	2.0	ND	ND		11/06/20	15:05	BA	452006
Hexane	ETO15	1.00	0.46	1.8	6.4	1.82		11/06/20	15:05	BA	452006
MTBE	ETO15	1.00	0.44	1.8	ND	ND		11/06/20	15:05	BA	452006
tert-Butanol	ETO15	1.00	0.62	1.5	7.3	2.41		11/06/20	15:05	BA	452006
Diisopropyl ether (DIPE)	ETO15	1.00	0.74	2.1	ND	ND		11/06/20	15:05	BA	452006
1,1-Dichloroethane	ETO15	1.00	0.54	2.0	ND	ND		11/06/20	15:05	BA	452006
ETBE	ETO15	1.00	0.33	2.1	ND	ND		11/06/20	15:05	BA	452006
cis-1,2-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		11/06/20	15:05	BA	452006
Chloroform	ETO15	1.00	0.97	2.4	ND	ND		11/06/20	15:05	BA	452006

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	SG-TF3	**Lab Sample ID:**	2011038-004A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 13:06	**Certified Clean WO # :**	
Canister/Tube ID:	R3566	**Received PSI :**	12.6
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/5/20	6:00:00PM
Prep Batch ID:	1126880	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Vinyl Acetate	ETO15	1.00	0.76	1.8	ND	ND		11/06/20	15:05	BA	452006
Carbon Tetrachloride	ETO15	1.00	1.1	3.1	ND	ND		11/06/20	15:05	BA	452006
1,1,1-Trichloroethane	ETO15	1.00	0.79	2.7	ND	ND		11/06/20	15:05	BA	452006
2-Butanone (MEK)	ETO15	1.00	0.39	1.5	33	11.19		11/06/20	15:05	BA	452006
Ethyl Acetate	ETO15	1.00	0.48	1.8	ND	ND		11/06/20	15:05	BA	452006
Tetrahydrofuran	ETO15	1.00	0.45	1.5	ND	ND		11/06/20	15:05	BA	452006
Benzene	ETO15	1.00	0.44	1.6	5.1	1.60		11/06/20	15:05	BA	452006
TAME	ETO15	1.00	0.67	2.1	ND	ND		11/06/20	15:05	BA	452006
1,2-Dichloroethane (EDC)	ETO15	1.00	0.42	2.0	ND	ND		11/06/20	15:05	BA	452006
Trichloroethylene	ETO15	1.00	0.81	2.7	ND	ND		11/06/20	15:05	BA	452006
1,2-Dichloropropane	ETO15	1.00	0.76	2.3	ND	ND		11/06/20	15:05	BA	452006
Bromodichloromethane	ETO15	1.00	0.74	3.4	ND	ND		11/06/20	15:05	BA	452006
1,4-Dioxane	ETO15	1.00	1.8	3.6	ND	ND		11/06/20	15:05	BA	452006
trans-1,3-Dichloropropene	ETO15	1.00	1.1	2.3	ND	ND		11/06/20	15:05	BA	452006
Toluene	ETO15	1.00	0.75	1.9	10	2.65		11/06/20	15:05	BA	452006
4-Methyl-2-Pentanone (MIBK)	ETO15	1.00	0.75	2.1	13	3.17		11/06/20	15:05	BA	452006
cis-1,3-Dichloropropene	ETO15	1.00	0.42	2.3	ND	ND		11/06/20	15:05	BA	452006
Tetrachloroethylene	ETO15	1.00	1.5	3.4	5.5	0.81		11/06/20	15:05	BA	452006
1,1,2-Trichloroethane	ETO15	1.00	0.58	2.7	ND	ND		11/06/20	15:05	BA	452006
Dibromochloromethane	ETO15	1.00	1.1	4.3	ND	ND		11/06/20	15:05	BA	452006
1,2-Dibromoethane (EDB)	ETO15	1.00	0.74	3.8	ND	ND		11/06/20	15:05	BA	452006
2-Hexanone	ETO15	1.00	0.65	2.1	12	2.93		11/06/20	15:05	BA	452006
Ethyl Benzene	ETO15	1.00	0.63	2.2	2.8	0.65		11/06/20	15:05	BA	452006
Chlorobenzene	ETO15	1.00	0.60	2.3	ND	ND		11/06/20	15:05	BA	452006
1,1,1,2-Tetrachloroethane	ETO15	1.00	0.84	3.4	ND	ND		11/06/20	15:05	BA	452006
m,p-Xylene	ETO15	1.00	0.98	2.2	6.8	1.57		11/06/20	15:05	BA	452006
o-Xylene	ETO15	1.00	0.30	2.2	2.2	0.51		11/06/20	15:05	BA	452006
Styrene	ETO15	1.00	0.46	2.1	ND	ND		11/06/20	15:05	BA	452006
Bromoform	ETO15	1.00	1.3	5.2	ND	ND		11/06/20	15:05	BA	452006
1,1,2,2-Tetrachloroethane	ETO15	1.00	0.82	3.4	ND	ND		11/06/20	15:05	BA	452006
4-Ethyl Toluene	ETO15	1.00	0.55	2.5	2.8	0.57		11/06/20	15:05	BA	452006
1,3,5-Trimethylbenzene	ETO15	1.00	0.30	2.5	ND	ND		11/06/20	15:05	BA	452006
1,2,4-Trimethylbenzene	ETO15	1.00	0.60	2.5	4.4	0.89		11/06/20	15:05	BA	452006

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	SG-TF3	**Lab Sample ID:**	2011038-004A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 13:06	**Certified Clean WO # :**	
Canister/Tube ID:	R3566	**Received PSI :**	12.6
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/5/20	6:00:00PM
Prep Batch ID:	1126880	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
1,4-Dichlorobenzene	ETO15	1.00	0.75	3.0	ND	ND		11/06/20	15:05	BA	452006
1,3-Dichlorobenzene	ETO15	1.00	1.3	3.0	ND	ND		11/06/20	15:05	BA	452006
1,2-Dichlorobenzene	ETO15	1.00	1.1	3.0	ND	ND		11/06/20	15:05	BA	452006
Hexachlorobutadiene	ETO15	1.00	1.9	5.3	ND	ND		11/06/20	15:05	BA	452006
1,2,4-Trichlorobenzene	ETO15	1.00	2.2	3.7	ND	ND		11/06/20	15:05	BA	452006
Naphthalene	ETO15	1.00	1.3	2.6	ND	ND		11/06/20	15:05	BA	452006
(S) 4-Bromofluorobenzene	ETO15	1.00	50	150	100 %			11/06/20	15:05	BA	452006

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	SG-39	**Lab Sample ID:**	2011038-005A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 13:35	**Certified Clean WO # :**	
Canister/Tube ID:	R3591	**Received PSI :**	9.9
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	FG-P	**Prep Batch Date/Time:**	11/18/20 7:35:00PM
Prep Batch ID:	1127231	**Prep Analyst:**	BPATEL

Parameters:	Analysis Method	DF	MDL %	PQL %	Results %	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Oxygen	D1946	4.50	0.047	0.23	14			11/19/20	9:51	BP	452322
Methane	D1946	4.50	0.011	0.023	ND			11/19/20	9:51	BP	452322

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/5/20 6:00:00PM
Prep Batch ID:	1126880	**Prep Analyst:**	BALI

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
The results shown below are reported using their MDL.											
Dichlorodifluoromethane	ETO15	30.00	47	74	ND	ND		11/06/20	14:14	BA	452006
1,1-Difluoroethane	ETO15	30.00	10	410	ND	ND		11/06/20	14:14	BA	452006
1,2-Dichlorotetrafluoroethane	ETO15	30.00	42	100	ND	ND		11/06/20	14:14	BA	452006
Chloromethane	ETO15	30.00	61	120	ND	ND		11/06/20	14:14	BA	452006
Vinyl Chloride	ETO15	30.00	6.8	38	ND	ND		11/06/20	14:14	BA	452006
1,3-Butadiene	ETO15	30.00	10	33	ND	ND		11/06/20	14:14	BA	452006
Bromomethane	ETO15	30.00	20	58	ND	ND		11/06/20	14:14	BA	452006
Chloroethane	ETO15	30.00	24	40	ND	ND		11/06/20	14:14	BA	452006
Trichlorofluoromethane	ETO15	30.00	17	84	ND	ND		11/06/20	14:14	BA	452006
1,1-Dichloroethene	ETO15	30.00	25	60	ND	ND		11/06/20	14:14	BA	452006
Freon 113	ETO15	30.00	31	110	ND	ND		11/06/20	14:14	BA	452006
Carbon Disulfide	ETO15	30.00	11	47	33	10.61	J	11/06/20	14:14	BA	452006
2-Propanol (Isopropyl Alcohol)	ETO15	30.00	38	370	ND	ND		11/06/20	14:14	BA	452006
Methylene Chloride	ETO15	30.00	21	310	ND	ND		11/06/20	14:14	BA	452006
Acetone	ETO15	30.00	12	360	25	10.50	J	11/06/20	14:14	BA	452006
trans-1,2-Dichloroethene	ETO15	30.00	14	59	ND	ND		11/06/20	14:14	BA	452006
Hexane	ETO15	30.00	14	53	24	6.82	J	11/06/20	14:14	BA	452006
MTBE	ETO15	30.00	13	54	ND	ND		11/06/20	14:14	BA	452006
tert-Butanol	ETO15	30.00	19	45	ND	ND		11/06/20	14:14	BA	452006
Diisopropyl ether (DIPE)	ETO15	30.00	22	63	ND	ND		11/06/20	14:14	BA	452006
1,1-Dichloroethane	ETO15	30.00	16	61	ND	ND		11/06/20	14:14	BA	452006
ETBE	ETO15	30.00	9.8	63	ND	ND		11/06/20	14:14	BA	452006
cis-1,2-Dichloroethene	ETO15	30.00	25	59	ND	ND		11/06/20	14:14	BA	452006

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	SG-39	**Lab Sample ID:**	2011038-005A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 13:35	**Certified Clean WO # :**	
Canister/Tube ID:	R3591	**Received PSI :**	9.9
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/5/20	6:00:00PM
Prep Batch ID:	1126880	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Chloroform	ETO15	30.00	29	73	ND	ND		11/06/20	14:14	BA	452006
Vinyl Acetate	ETO15	30.00	23	53	ND	ND		11/06/20	14:14	BA	452006
Carbon Tetrachloride	ETO15	30.00	33	94	ND	ND		11/06/20	14:14	BA	452006
1,1,1-Trichloroethane	ETO15	30.00	24	82	ND	ND		11/06/20	14:14	BA	452006
2-Butanone (MEK)	ETO15	30.00	12	44	ND	ND		11/06/20	14:14	BA	452006
Ethyl Acetate	ETO15	30.00	14	54	ND	ND		11/06/20	14:14	BA	452006
Tetrahydrofuran	ETO15	30.00	13	44	44	14.92		11/06/20	14:14	BA	452006
Benzene	ETO15	30.00	13	48	ND	ND		11/06/20	14:14	BA	452006
TAME	ETO15	30.00	20	63	ND	ND		11/06/20	14:14	BA	452006
1,2-Dichloroethane (EDC)	ETO15	30.00	13	61	ND	ND		11/06/20	14:14	BA	452006
Trichloroethylene	ETO15	30.00	24	81	ND	ND		11/06/20	14:14	BA	452006
1,2-Dichloropropane	ETO15	30.00	23	69	ND	ND		11/06/20	14:14	BA	452006
Bromodichloromethane	ETO15	30.00	22	100	ND	ND		11/06/20	14:14	BA	452006
1,4-Dioxane	ETO15	30.00	54	110	ND	ND		11/06/20	14:14	BA	452006
trans-1,3-Dichloropropene	ETO15	30.00	32	68	ND	ND		11/06/20	14:14	BA	452006
Toluene	ETO15	30.00	23	57	200	53.05		11/06/20	14:14	BA	452006
4-Methyl-2-Pentanone (MIBK)	ETO15	30.00	22	62	ND	ND		11/06/20	14:14	BA	452006
cis-1,3-Dichloropropene	ETO15	30.00	13	68	ND	ND		11/06/20	14:14	BA	452006
Tetrachloroethylene	ETO15	30.00	44	100	ND	ND		11/06/20	14:14	BA	452006
1,1,2-Trichloroethane	ETO15	30.00	18	82	ND	ND		11/06/20	14:14	BA	452006
Dibromochloromethane	ETO15	30.00	33	130	ND	ND		11/06/20	14:14	BA	452006
1,2-Dibromoethane (EDB)	ETO15	30.00	22	120	ND	ND		11/06/20	14:14	BA	452006
2-Hexanone	ETO15	30.00	20	62	ND	ND		11/06/20	14:14	BA	452006
Ethyl Benzene	ETO15	30.00	19	65	1400	322.58		11/06/20	14:14	BA	452006
Chlorobenzene	ETO15	30.00	18	69	ND	ND		11/06/20	14:14	BA	452006
1,1,1,2-Tetrachloroethane	ETO15	30.00	25	100	ND	ND		11/06/20	14:14	BA	452006
m,p-Xylene	ETO15	30.00	29	65	4800	1,105.99		11/06/20	14:14	BA	452006
o-Xylene	ETO15	30.00	9.1	65	1300	299.54		11/06/20	14:14	BA	452006
Styrene	ETO15	30.00	14	64	ND	ND		11/06/20	14:14	BA	452006
Bromoform	ETO15	30.00	39	160	ND	ND		11/06/20	14:14	BA	452006
1,1,2,2-Tetrachloroethane	ETO15	30.00	25	100	ND	ND		11/06/20	14:14	BA	452006
4-Ethyl Toluene	ETO15	30.00	16	74	ND	ND		11/06/20	14:14	BA	452006
1,3,5-Trimethylbenzene	ETO15	30.00	9.0	74	ND	ND		11/06/20	14:14	BA	452006

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/04/20, 1:15 pm
Date Reported: 11/09/20

Client Sample ID:	SG-39	**Lab Sample ID:**	2011038-005A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/03/20 / 13:35	**Certified Clean WO # :**	
Canister/Tube ID:	R3591	**Received PSI :**	9.9
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/5/20	6:00:00PM
Prep Batch ID:	1126880	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
1,2,4-Trimethylbenzene	ETO15	30.00	18	74	ND	ND		11/06/20	14:14	BA	452006
1,4-Dichlorobenzene	ETO15	30.00	22	90	ND	ND		11/06/20	14:14	BA	452006
1,3-Dichlorobenzene	ETO15	30.00	40	90	ND	ND		11/06/20	14:14	BA	452006
1,2-Dichlorobenzene	ETO15	30.00	32	90	ND	ND		11/06/20	14:14	BA	452006
Hexachlorobutadiene	ETO15	30.00	56	160	ND	ND		11/06/20	14:14	BA	452006
1,2,4-Trichlorobenzene	ETO15	30.00	65	110	ND	ND		11/06/20	14:14	BA	452006
Naphthalene	ETO15	30.00	38	79	ND	ND		11/06/20	14:14	BA	452006
(S) 4-Bromofluorobenzene	ETO15	30.00	50	150	87 %			11/06/20	14:14	BA	452006

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011038	**Prep Method:**	TO15-P	**Prep Date:**	11/05/20	**Prep Batch:**	1126880
Matrix:	Air	**Analytical Method:**	ETO15	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	452006
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	0.32	0.50	ND	
1,1-Difluoroethane	0.13	5.0	0.94	
1,2-Dichlorotetrafluoroethane	0.20	0.50	ND	
Chloromethane	0.99	2.0	ND	
Vinyl Chloride	0.088	0.50	ND	
1,3-Butadiene	0.15	0.50	ND	
Bromomethane	0.17	0.50	ND	
Chloroethane	0.31	0.50	ND	
Trichlorofluoromethane	0.099	0.50	ND	
1,1-Dichloroethene	0.21	0.50	ND	
Freon 113	0.13	0.50	ND	
Carbon Disulfide	0.12	0.50	ND	
2-Propanol (Isopropyl Alcohol)	0.52	5.0	ND	
Methylene Chloride	0.20	3.0	ND	
Acetone	0.17	5.0	ND	
trans-1,2-Dichloroethene	0.12	0.50	ND	
Hexane	0.13	0.50	ND	
MTBE	0.12	0.50	ND	
tert-Butanol	0.20	0.50	ND	
Diisopropyl ether (DIPE)	0.18	0.50	ND	
1,1-Dichloroethane	0.13	0.50	ND	
ETBE	0.078	0.50	ND	
cis-1,2-Dichloroethene	0.21	0.50	ND	
Chloroform	0.20	0.50	ND	
Vinyl Acetate	0.22	0.50	ND	
Carbon Tetrachloride	0.18	0.50	ND	
1,1,1-Trichloroethane	0.15	0.50	ND	
2-Butanone (MEK)	0.13	0.50	ND	
Ethyl Acetate	0.13	0.50	0.17	
Tetrahydrofuran	0.15	0.50	ND	
Benzene	0.14	0.50	ND	
TAME	0.16	0.50	ND	
1,2-Dichloroethane (EDC)	0.10	0.50	ND	
Trichloroethylene	0.15	0.50	ND	
1,2-Dichloropropane	0.17	0.50	ND	
Bromodichloromethane	0.11	0.50	ND	
1,4-Dioxane	0.50	1.0	ND	
trans-1,3-Dichloropropene	0.23	0.50	ND	
Toluene	0.20	0.50	ND	
4-Methyl-2-Pentanone (MIBK)	0.18	0.50	ND	
cis-1,3-Dichloropropene	0.093	0.50	ND	
Tetrachloroethylene	0.22	0.50	ND	

MB Summary Report

Work Order:	2011038	**Prep Method:**	TO15-P	**Prep Date:**	11/05/20	**Prep Batch:**	1126880
Matrix:	Air	**Analytical Method:**	ETO15	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	452006
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
1,1,2-Trichloroethane	0.11	0.50	ND	
Dibromochloromethane	0.13	0.50	ND	
1,2-Dibromoethane (EDB)	0.096	0.50	ND	
2-Hexanone	0.16	0.50	ND	
Ethyl Benzene	0.15	0.50	ND	
Chlorobenzene	0.13	0.50	ND	
1,1,1,2-Tetrachloroethane	0.12	0.50	ND	
m,p-Xylene	0.23	0.50	ND	
o-Xylene	0.070	0.50	ND	
Styrene	0.11	0.50	ND	
Bromoform	0.13	0.50	ND	
1,1,2,2-Tetrachloroethane	0.12	0.50	ND	
4-Ethyl Toluene	0.11	0.50	ND	
1,3,5-Trimethylbenzene	0.061	0.50	ND	
1,2,4-Trimethylbenzene	0.12	0.50	ND	
1,4-Dichlorobenzene	0.12	0.50	ND	
1,3-Dichlorobenzene	0.22	0.50	ND	
1,2-Dichlorobenzene	0.18	0.50	ND	
Hexachlorobutadiene	0.17	0.50	ND	
1,2,4-Trichlorobenzene	0.29	0.50	ND	
Naphthalene	0.24	0.50	ND	
Cyclohexane	0.50	0.50	ND	
Benzyl Chloride	0.20	0.50	ND	
Heptane	0.13	0.50	0.14	
(S) 4-Bromofluorobenzene			98	

Work Order:	2011038	**Prep Method:**	FG-P	**Prep Date:**	11/18/20	**Prep Batch:**	1127231
Matrix:	Air	**Analytical Method:**	D1946	**Analyzed Date:**	11/18/2020	**Analytical Batch:**	452322
Units:	ppmv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Carbon Dioxide	100	500	ND	
Ethene	110	500	ND	
Ethane	130	500	ND	
Hydrogen	180	500	ND	
Oxygen	110	500	ND	
Nitrogen	260	500	ND	
Methane	23	50	ND	
Carbon Monoxide	200	500	ND	

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011038	**Prep Method:**	TO15-P	**Prep Date:**	11/05/20	**Prep Batch:**	1126880
Matrix:	Air	**Analytical Method:**	ETO15	**Analyzed Date:**	11/5/2020	**Analytical Batch:**	452006
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.21	0.50	ND	8.00	133	135	1.87	65 - 135	30	
Benzene	0.14	0.50	0.94	8.00	121	123	2.25	65 - 135	30	
Trichloroethylene	0.15	0.50	ND	8.00	92.1	92.0	0.136	65 - 135	30	
Toluene	0.20	0.50	ND	8.00	93.8	94.2	0.399	65 - 135	30	
Chlorobenzene	0.13	0.50	ND	8.00	95.3	101	5.86	65 - 135	30	
(S) 4-Bromofluorobenzene				20.0	95.2	97.5		50 - 150		

Work Order:	2011038	**Prep Method:**	FG-P	**Prep Date:**	11/18/20	**Prep Batch:**	1127231
Matrix:	Air	**Analytical Method:**	D1946	**Analyzed Date:**	11/19/2020	**Analytical Batch:**	452322
Units:	ppmv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Carbon Dioxide	100	500	ND	2500	81.8	76.6	6.06	65 - 135	30	
Ethene	110	500	ND	2500	77.4	80.8	4.56	65 - 135	30	
Ethane	130	500	ND	2500	77.6	81.1	4.53	65 - 135	30	
Hydrogen	180	500	ND	2500	94.4	86.9	8.39	65 - 135	30	
Oxygen	110	500	ND	2500	106	100	6.20	65 - 135	30	
Nitrogen	260	500	ND	2500	118	113	3.81	65 - 135	30	
Methane	230	500	ND	2500	96.2	83.9	13.3	65 - 135	30	
Carbon Monoxide	200	500	ND	2500	100	89.9	10.5	65 - 135	30	

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg/m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the analyte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: Engeo (San Ramon)

Project Name: Brindle Gate

Work Order No.: 2011038

Date and Time Received: 11/4/2020 1:15:00PM

Received By: Lorna Imbat

Physically Logged By: Lorna Imbat

Checklist Completed By: Lorna Imbat

Carrier Name: First Courier

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	No
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes
Container/Temp Blank temperature in compliance?	Temperature: °C
Water-VOA vials have zero headspace?	No VOA vials submitted
Water-pH acceptable upon receipt?	N/A
pH Checked by: n/a	pH Adjusted by: n/a

Comments:

Sample ID discrepancy with the CoC for sample 005. Sample ID logged in after clarification with celint

Login Summary Report

Client ID:	TL5123	Engeo (San Ramon)	**QC Level:**	II
Project Name:	Brindle Gate		**TAT Requested:**	3 Day Std:3
Project # :	3359.210.001		**Date Received:**	11/4/2020
Report Due Date:	11/20/2020		**Time Received:**	1:15 pm

Comments:

Work Order # : ***2011038***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2011038-001A	SG-3-10	11/03/20 10:15	Air				VOC_A_TO15 VOC_A_FG D1946	
Sample Note:	O2 & Methane. Pls transfer Nitrogen data for normalization							
2011038-002A	SG-TF1	11/03/20 12:45	Air				VOC_A_TO15 VOC_A_FG D1946	
2011038-003A	SG-TF2	11/03/20 12:58	Air				VOC_A_TO15 VOC_A_FG D1946	
2011038-004A	SG-TF3	11/03/20 13:06	Air				VOC_A_TO15 VOC_A_FG D1946	
2011038-005A	SG-39	11/03/20 13:35	Air				VOC_A_TO15 VOC_A_TO15 VOC_A_FG D1946	

Torrent LABORATORY, INC.

CHAIN OF CUSTODY RECORD

~~20110~~ 24
2011038

PROJECT NUMBER: 3359.210.001
PROJECT NAME: Brindle Gate
SAMPLED BY: (SIGNATURE/PRINT) Taunee Werts
PROJECT MANAGER: (SIGNATURE/PRINT) Brooke Spruit
ROUTING: E-MAIL: Bspruit, twerts, SMunger@engeo.com

SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	TPH-g	BTEX (8260)	MTBE	TPH-d/mo sig clean up (8015)	TO-15	REMARKS / REQUIRED DETECTION LIMITS
S-36-10-S@5'	11/3/20	11:20	SOIL	1	Sleeve	NIA	X	X	X	X		
↓ @10'		11:22					X	X	X	X		
S-36-10-N@5'		11:33					X	X	X	X		
↓ @10		11:42					X	X	X	X		
S-36-10-W@5'		11:56					X	X	X	X		
↓ @10'		11:58					X	X	X	X		
S-36-10-C@5'		12:02					X	X	X	X		
↓ @10'		12:04	↓	↓	↓	↓	X	X	X	X		
SG-3-10		10:15	AIR		1L canister						X	-001A
SG-TF1		12:45									X	-002A
SG-TF2		12:58									X	-003A
SG-TF3		13:06									X	-004A
SG-31-10		13:26	↓	↓	↓	↓					X	-005A
~~SG-B~~												

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
	11/4/20 07:00			11/4 12:34	L.D. Imbay
					13N
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE/TIME	REMARKS	

ENGEO INCORPORATED
2010 CROW CANYON PLACE SUITE 250
SAN RAMON, CALIFORNIA 94583
(925) 866-9000 FAX (888) 279-2698
WWW.ENGEO.COM

DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT; COPY TO PROJECT FIELD FILES

Read canister @ ambient temp FC temp 2 #1

Engeo (San Ramon)
2010 Crow Canyon Place,#250
San Ramon, California 94583
Tel: (925) 866-9000
Fax: (925) 866-0199

RE: Brindle Gate

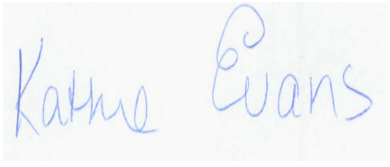
Work Order No.: 2011049 Rev: 1

Dear Brooke Spruit:

Torrent Laboratory, Inc. received 4 sample(s) on November 05, 2020 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.



Kathie Evans
Project Manager

November 10, 2020
Date

Date: 11/10/2020

Client: Engeo (San Ramon)

Project: Brindle Gate

Work Order: 2011049

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

REVISIONS

Report revised to include Methane and Oxygen data.

Rev. 1 (11/20/20)

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date Received: 11/05/20
Date Reported: 11/10/20

SG-36-10 2011049-001

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3
Oxygen	D1946	2.8	0.030	0.14	15%
Carbon Disulfide	ETO15	1	0.37	1.6	1.8
Acetone	ETO15	1	0.40	12	15
tert-Butanol	ETO15	1	0.62	1.5	5.1
Toluene	ETO15	1	0.75	1.9	6.2
Tetrachloroethylene	ETO15	1	1.5	3.4	5.2

SG-32-10 2011049-002

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3
Oxygen	D1946	3.8	0.040	0.19	14%
1,3-Butadiene	ETO15	1	0.34	1.1	1.1
Freon 113	ETO15	1	1.0	3.8	4.8
Carbon Disulfide	ETO15	1	0.37	1.6	8.0
Acetone	ETO15	1	0.40	12	12
Hexane	ETO15	1	0.46	1.8	4.1
tert-Butanol	ETO15	1	0.62	1.5	7.3
Toluene	ETO15	1	0.75	1.9	6.7
Tetrachloroethylene	ETO15	1	1.5	3.4	4.7

SG-38-10 2011049-003

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3
Oxygen	D1946	2.7	0.028	0.14	14%
Toluene	ETO15	1	0.75	1.9	5.3
Tetrachloroethylene	ETO15	1	1.5	3.4	4.7

SG-34-10 2011049-004

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3
Oxygen	D1946	2.5	0.026	0.13	15%
Toluene	ETO15	1	0.75	1.9	3.3

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	SG-36-10	**Lab Sample ID:**	2011049-001A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/05/20 / 7:31	**Certified Clean WO # :**	
Canister/Tube ID:	A7557	**Received PSI :**	12.2
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	FG-P	**Prep Batch Date/Time:**	11/18/20 7:35:00PM
Prep Batch ID:	1127231	**Prep Analyst:**	BPATEL

Parameters:	Analysis Method	DF	MDL %	PQL %	Results %	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Oxygen	D1946	2.80	0.030	0.14	15			11/19/20	10:21	BP	452322
Methane	D1946	2.80	0.0066	0.014	ND			11/19/20	10:21	BP	452322

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/9/20 7:00:00AM
Prep Batch ID:	1126930	**Prep Analyst:**	BALI

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	ETO15	1.00	1.6	2.5	ND	ND		11/09/20	14:56	BA	452037
1,1-Difluoroethane	ETO15	1.00	0.35	14	ND	ND		11/09/20	14:56	BA	452037
1,2-Dichlorotetrafluoroethane	ETO15	1.00	1.4	3.5	ND	ND		11/09/20	14:56	BA	452037
Chloromethane	ETO15	1.00	2.0	4.1	ND	ND		11/09/20	14:56	BA	452037
Vinyl Chloride	ETO15	1.00	0.23	1.3	ND	ND		11/09/20	14:56	BA	452037
1,3-Butadiene	ETO15	1.00	0.34	1.1	ND	ND		11/09/20	14:56	BA	452037
Bromomethane	ETO15	1.00	0.66	1.9	ND	ND		11/09/20	14:56	BA	452037
Chloroethane	ETO15	1.00	0.81	1.3	ND	ND		11/09/20	14:56	BA	452037
Trichlorofluoromethane	ETO15	1.00	0.56	2.8	ND	ND		11/09/20	14:56	BA	452037
1,1-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		11/09/20	14:56	BA	452037
Freon 113	ETO15	1.00	1.0	3.8	ND	ND		11/09/20	14:56	BA	452037
Carbon Disulfide	ETO15	1.00	0.37	1.6	1.8	0.58		11/09/20	14:56	BA	452037
2-Propanol (Isopropyl Alcohol)	ETO15	1.00	1.3	12	ND	ND		11/09/20	14:56	BA	452037
Methylene Chloride	ETO15	1.00	0.70	10	ND	ND		11/09/20	14:56	BA	452037
Acetone	ETO15	1.00	0.40	12	15	6.30		11/09/20	14:56	BA	452037
trans-1,2-Dichloroethene	ETO15	1.00	0.48	2.0	ND	ND		11/09/20	14:56	BA	452037
Hexane	ETO15	1.00	0.46	1.8	ND	ND		11/09/20	14:56	BA	452037
MTBE	ETO15	1.00	0.44	1.8	ND	ND		11/09/20	14:56	BA	452037
tert-Butanol	ETO15	1.00	0.62	1.5	5.1	1.68		11/09/20	14:56	BA	452037
Diisopropyl ether (DIPE)	ETO15	1.00	0.74	2.1	ND	ND		11/09/20	14:56	BA	452037
1,1-Dichloroethane	ETO15	1.00	0.54	2.0	ND	ND		11/09/20	14:56	BA	452037
ETBE	ETO15	1.00	0.33	2.1	ND	ND		11/09/20	14:56	BA	452037
cis-1,2-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		11/09/20	14:56	BA	452037
Chloroform	ETO15	1.00	0.97	2.4	ND	ND		11/09/20	14:56	BA	452037

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	SG-36-10	**Lab Sample ID:**	2011049-001A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/05/20 / 7:31	**Certified Clean WO # :**	
Canister/Tube ID:	A7557	**Received PSI :**	12.2
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/9/20	7:00:00AM
Prep Batch ID:	1126930	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Vinyl Acetate	ETO15	1.00	0.76	1.8	ND	ND		11/09/20	14:56	BA	452037
Carbon Tetrachloride	ETO15	1.00	1.1	3.1	ND	ND		11/09/20	14:56	BA	452037
1,1,1-Trichloroethane	ETO15	1.00	0.79	2.7	ND	ND		11/09/20	14:56	BA	452037
2-Butanone (MEK)	ETO15	1.00	0.39	1.5	ND	ND		11/09/20	14:56	BA	452037
Ethyl Acetate	ETO15	1.00	0.48	1.8	ND	ND		11/09/20	14:56	BA	452037
Tetrahydrofuran	ETO15	1.00	0.45	1.5	ND	ND		11/09/20	14:56	BA	452037
Benzene	ETO15	1.00	0.44	1.6	ND	ND		11/09/20	14:56	BA	452037
TAME	ETO15	1.00	0.67	2.1	ND	ND		11/09/20	14:56	BA	452037
1,2-Dichloroethane (EDC)	ETO15	1.00	0.42	2.0	ND	ND		11/09/20	14:56	BA	452037
Trichloroethylene	ETO15	1.00	0.81	2.7	ND	ND		11/09/20	14:56	BA	452037
1,2-Dichloropropane	ETO15	1.00	0.76	2.3	ND	ND		11/09/20	14:56	BA	452037
Bromodichloromethane	ETO15	1.00	0.74	3.4	ND	ND		11/09/20	14:56	BA	452037
1,4-Dioxane	ETO15	1.00	1.8	3.6	ND	ND		11/09/20	14:56	BA	452037
trans-1,3-Dichloropropene	ETO15	1.00	1.1	2.3	ND	ND		11/09/20	14:56	BA	452037
Toluene	ETO15	1.00	0.75	1.9	6.2	1.64		11/09/20	14:56	BA	452037
4-Methyl-2-Pentanone (MIBK)	ETO15	1.00	0.75	2.1	ND	ND		11/09/20	14:56	BA	452037
cis-1,3-Dichloropropene	ETO15	1.00	0.42	2.3	ND	ND		11/09/20	14:56	BA	452037
Tetrachloroethylene	ETO15	1.00	1.5	3.4	5.2	0.77		11/09/20	14:56	BA	452037
1,1,2-Trichloroethane	ETO15	1.00	0.58	2.7	ND	ND		11/09/20	14:56	BA	452037
Dibromochloromethane	ETO15	1.00	1.1	4.3	ND	ND		11/09/20	14:56	BA	452037
1,2-Dibromoethane (EDB)	ETO15	1.00	0.74	3.8	ND	ND		11/09/20	14:56	BA	452037
2-Hexanone	ETO15	1.00	0.65	2.1	ND	ND		11/09/20	14:56	BA	452037
Ethyl Benzene	ETO15	1.00	0.63	2.2	ND	ND		11/09/20	14:56	BA	452037
Chlorobenzene	ETO15	1.00	0.60	2.3	ND	ND		11/09/20	14:56	BA	452037
1,1,1,2-Tetrachloroethane	ETO15	1.00	0.84	3.4	ND	ND		11/09/20	14:56	BA	452037
m,p-Xylene	ETO15	1.00	0.98	2.2	ND	ND		11/09/20	14:56	BA	452037
o-Xylene	ETO15	1.00	0.30	2.2	ND	ND		11/09/20	14:56	BA	452037
Styrene	ETO15	1.00	0.46	2.1	ND	ND		11/09/20	14:56	BA	452037
Bromoform	ETO15	1.00	1.3	5.2	ND	ND		11/09/20	14:56	BA	452037
1,1,2,2-Tetrachloroethane	ETO15	1.00	0.82	3.4	ND	ND		11/09/20	14:56	BA	452037
4-Ethyl Toluene	ETO15	1.00	0.55	2.5	ND	ND		11/09/20	14:56	BA	452037
1,3,5-Trimethylbenzene	ETO15	1.00	0.30	2.5	ND	ND		11/09/20	14:56	BA	452037
1,2,4-Trimethylbenzene	ETO15	1.00	0.60	2.5	ND	ND		11/09/20	14:56	BA	452037

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	SG-36-10	**Lab Sample ID:**	2011049-001A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/05/20 / 7:31	**Certified Clean WO # :**	
Canister/Tube ID:	A7557	**Received PSI :**	12.2
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/9/20	7:00:00AM
Prep Batch ID:	1126930	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
1,4-Dichlorobenzene	ETO15	1.00	0.75	3.0	ND	ND		11/09/20	14:56	BA	452037
1,3-Dichlorobenzene	ETO15	1.00	1.3	3.0	ND	ND		11/09/20	14:56	BA	452037
1,2-Dichlorobenzene	ETO15	1.00	1.1	3.0	ND	ND		11/09/20	14:56	BA	452037
Hexachlorobutadiene	ETO15	1.00	1.9	5.3	ND	ND		11/09/20	14:56	BA	452037
1,2,4-Trichlorobenzene	ETO15	1.00	2.2	3.7	ND	ND		11/09/20	14:56	BA	452037
Naphthalene	ETO15	1.00	1.3	2.6	ND	ND		11/09/20	14:56	BA	452037
(S) 4-Bromofluorobenzene	ETO15	1.00	50	150	110 %			11/09/20	14:56	BA	452037

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	SG-32-10	**Lab Sample ID:**	2011049-002A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/05/20 / 7:52	**Certified Clean WO # :**	
Canister/Tube ID:	6314	**Received PSI :**	12.9
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	FG-P	**Prep Batch Date/Time:**	11/18/20 7:35:00PM
Prep Batch ID:	1127231	**Prep Analyst:**	BPATEL

Parameters:	Analysis Method	DF	MDL %	PQL %	Results %	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Oxygen	D1946	3.80	0.040	0.19	14			11/19/20	10:52	BP	452322
Methane	D1946	3.80	0.0089	0.019	ND			11/19/20	10:52	BP	452322

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/9/20 7:00:00AM
Prep Batch ID:	1126930	**Prep Analyst:**	BALI

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	ETO15	1.00	1.6	2.5	ND	ND		11/09/20	15:21	BA	452037
1,1-Difluoroethane	ETO15	1.00	0.35	14	ND	ND		11/09/20	15:21	BA	452037
1,2-Dichlorotetrafluoroethane	ETO15	1.00	1.4	3.5	ND	ND		11/09/20	15:21	BA	452037
Chloromethane	ETO15	1.00	2.0	4.1	ND	ND		11/09/20	15:21	BA	452037
Vinyl Chloride	ETO15	1.00	0.23	1.3	ND	ND		11/09/20	15:21	BA	452037
1,3-Butadiene	ETO15	1.00	0.34	1.1	1.1	0.50		11/09/20	15:21	BA	452037
Bromomethane	ETO15	1.00	0.66	1.9	ND	ND		11/09/20	15:21	BA	452037
Chloroethane	ETO15	1.00	0.81	1.3	ND	ND		11/09/20	15:21	BA	452037
Trichlorofluoromethane	ETO15	1.00	0.56	2.8	ND	ND		11/09/20	15:21	BA	452037
1,1-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		11/09/20	15:21	BA	452037
Freon 113	ETO15	1.00	1.0	3.8	4.8	0.63		11/09/20	15:21	BA	452037
Carbon Disulfide	ETO15	1.00	0.37	1.6	8.0	2.57		11/09/20	15:21	BA	452037
2-Propanol (Isopropyl Alcohol)	ETO15	1.00	1.3	12	ND	ND		11/09/20	15:21	BA	452037
Methylene Chloride	ETO15	1.00	0.70	10	ND	ND		11/09/20	15:21	BA	452037
Acetone	ETO15	1.00	0.40	12	12	5.04		11/09/20	15:21	BA	452037
trans-1,2-Dichloroethene	ETO15	1.00	0.48	2.0	ND	ND		11/09/20	15:21	BA	452037
Hexane	ETO15	1.00	0.46	1.8	4.1	1.16		11/09/20	15:21	BA	452037
MTBE	ETO15	1.00	0.44	1.8	ND	ND		11/09/20	15:21	BA	452037
tert-Butanol	ETO15	1.00	0.62	1.5	7.3	2.41		11/09/20	15:21	BA	452037
Diisopropyl ether (DIPE)	ETO15	1.00	0.74	2.1	ND	ND		11/09/20	15:21	BA	452037
1,1-Dichloroethane	ETO15	1.00	0.54	2.0	ND	ND		11/09/20	15:21	BA	452037
ETBE	ETO15	1.00	0.33	2.1	ND	ND		11/09/20	15:21	BA	452037
cis-1,2-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		11/09/20	15:21	BA	452037
Chloroform	ETO15	1.00	0.97	2.4	ND	ND		11/09/20	15:21	BA	452037

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	SG-32-10	**Lab Sample ID:**	2011049-002A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/05/20 / 7:52	**Certified Clean WO # :**	
Canister/Tube ID:	6314	**Received PSI :**	12.9
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/9/20	7:00:00AM
Prep Batch ID:	1126930	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Vinyl Acetate	ETO15	1.00	0.76	1.8	ND	ND		11/09/20	15:21	BA	452037
Carbon Tetrachloride	ETO15	1.00	1.1	3.1	ND	ND		11/09/20	15:21	BA	452037
1,1,1-Trichloroethane	ETO15	1.00	0.79	2.7	ND	ND		11/09/20	15:21	BA	452037
2-Butanone (MEK)	ETO15	1.00	0.39	1.5	ND	ND		11/09/20	15:21	BA	452037
Ethyl Acetate	ETO15	1.00	0.48	1.8	ND	ND		11/09/20	15:21	BA	452037
Tetrahydrofuran	ETO15	1.00	0.45	1.5	ND	ND		11/09/20	15:21	BA	452037
Benzene	ETO15	1.00	0.44	1.6	ND	ND		11/09/20	15:21	BA	452037
TAME	ETO15	1.00	0.67	2.1	ND	ND		11/09/20	15:21	BA	452037
1,2-Dichloroethane (EDC)	ETO15	1.00	0.42	2.0	ND	ND		11/09/20	15:21	BA	452037
Trichloroethylene	ETO15	1.00	0.81	2.7	ND	ND		11/09/20	15:21	BA	452037
1,2-Dichloropropane	ETO15	1.00	0.76	2.3	ND	ND		11/09/20	15:21	BA	452037
Bromodichloromethane	ETO15	1.00	0.74	3.4	ND	ND		11/09/20	15:21	BA	452037
1,4-Dioxane	ETO15	1.00	1.8	3.6	ND	ND		11/09/20	15:21	BA	452037
trans-1,3-Dichloropropene	ETO15	1.00	1.1	2.3	ND	ND		11/09/20	15:21	BA	452037
Toluene	ETO15	1.00	0.75	1.9	6.7	1.78		11/09/20	15:21	BA	452037
4-Methyl-2-Pentanone (MIBK)	ETO15	1.00	0.75	2.1	ND	ND		11/09/20	15:21	BA	452037
cis-1,3-Dichloropropene	ETO15	1.00	0.42	2.3	ND	ND		11/09/20	15:21	BA	452037
Tetrachloroethylene	ETO15	1.00	1.5	3.4	4.7	0.69		11/09/20	15:21	BA	452037
1,1,2-Trichloroethane	ETO15	1.00	0.58	2.7	ND	ND		11/09/20	15:21	BA	452037
Dibromochloromethane	ETO15	1.00	1.1	4.3	ND	ND		11/09/20	15:21	BA	452037
1,2-Dibromoethane (EDB)	ETO15	1.00	0.74	3.8	ND	ND		11/09/20	15:21	BA	452037
2-Hexanone	ETO15	1.00	0.65	2.1	ND	ND		11/09/20	15:21	BA	452037
Ethyl Benzene	ETO15	1.00	0.63	2.2	ND	ND		11/09/20	15:21	BA	452037
Chlorobenzene	ETO15	1.00	0.60	2.3	ND	ND		11/09/20	15:21	BA	452037
1,1,1,2-Tetrachloroethane	ETO15	1.00	0.84	3.4	ND	ND		11/09/20	15:21	BA	452037
m,p-Xylene	ETO15	1.00	0.98	2.2	ND	ND		11/09/20	15:21	BA	452037
o-Xylene	ETO15	1.00	0.30	2.2	ND	ND		11/09/20	15:21	BA	452037
Styrene	ETO15	1.00	0.46	2.1	ND	ND		11/09/20	15:21	BA	452037
Bromoform	ETO15	1.00	1.3	5.2	ND	ND		11/09/20	15:21	BA	452037
1,1,2,2-Tetrachloroethane	ETO15	1.00	0.82	3.4	ND	ND		11/09/20	15:21	BA	452037
4-Ethyl Toluene	ETO15	1.00	0.55	2.5	ND	ND		11/09/20	15:21	BA	452037
1,3,5-Trimethylbenzene	ETO15	1.00	0.30	2.5	ND	ND		11/09/20	15:21	BA	452037
1,2,4-Trimethylbenzene	ETO15	1.00	0.60	2.5	ND	ND		11/09/20	15:21	BA	452037

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	SG-32-10	**Lab Sample ID:**	2011049-002A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/05/20 / 7:52	**Certified Clean WO # :**	
Canister/Tube ID:	6314	**Received PSI :**	12.9
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/9/20	7:00:00AM
Prep Batch ID:	1126930	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
1,4-Dichlorobenzene	ETO15	1.00	0.75	3.0	ND	ND		11/09/20	15:21	BA	452037
1,3-Dichlorobenzene	ETO15	1.00	1.3	3.0	ND	ND		11/09/20	15:21	BA	452037
1,2-Dichlorobenzene	ETO15	1.00	1.1	3.0	ND	ND		11/09/20	15:21	BA	452037
Hexachlorobutadiene	ETO15	1.00	1.9	5.3	ND	ND		11/09/20	15:21	BA	452037
1,2,4-Trichlorobenzene	ETO15	1.00	2.2	3.7	ND	ND		11/09/20	15:21	BA	452037
Naphthalene	ETO15	1.00	1.3	2.6	ND	ND		11/09/20	15:21	BA	452037
(S) 4-Bromofluorobenzene	ETO15	1.00	50	150	110 %			11/09/20	15:21	BA	452037

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	SG-38-10	**Lab Sample ID:**	2011049-003A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/05/20 / 8:15	**Certified Clean WO # :**	
Canister/Tube ID:	N3950	**Received PSI :**	13.5
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	FG-P	**Prep Batch Date/Time:**	11/18/20 7:35:00PM
Prep Batch ID:	1127231	**Prep Analyst:**	BPATEL

Parameters:	Analysis Method	DF	MDL %	PQL %	Results %	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Oxygen	D1946	2.70	0.028	0.14	14			11/19/20	11:14	BP	452322
Methane	D1946	2.70	0.0063	0.014	ND			11/19/20	11:14	BP	452322

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/9/20 7:00:00AM
Prep Batch ID:	1126930	**Prep Analyst:**	BALI

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	ETO15	1.00	1.6	2.5	ND	ND		11/09/20	15:46	BA	452037
1,1-Difluoroethane	ETO15	1.00	0.35	14	ND	ND		11/09/20	15:46	BA	452037
1,2-Dichlorotetrafluoroethane	ETO15	1.00	1.4	3.5	ND	ND		11/09/20	15:46	BA	452037
Chloromethane	ETO15	1.00	2.0	4.1	ND	ND		11/09/20	15:46	BA	452037
Vinyl Chloride	ETO15	1.00	0.23	1.3	ND	ND		11/09/20	15:46	BA	452037
1,3-Butadiene	ETO15	1.00	0.34	1.1	ND	ND		11/09/20	15:46	BA	452037
Bromomethane	ETO15	1.00	0.66	1.9	ND	ND		11/09/20	15:46	BA	452037
Chloroethane	ETO15	1.00	0.81	1.3	ND	ND		11/09/20	15:46	BA	452037
Trichlorofluoromethane	ETO15	1.00	0.56	2.8	ND	ND		11/09/20	15:46	BA	452037
1,1-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		11/09/20	15:46	BA	452037
Freon 113	ETO15	1.00	1.0	3.8	ND	ND		11/09/20	15:46	BA	452037
Carbon Disulfide	ETO15	1.00	0.37	1.6	ND	ND		11/09/20	15:46	BA	452037
2-Propanol (Isopropyl Alcohol)	ETO15	1.00	1.3	12	ND	ND		11/09/20	15:46	BA	452037
Methylene Chloride	ETO15	1.00	0.70	10	ND	ND		11/09/20	15:46	BA	452037
Acetone	ETO15	1.00	0.40	12	ND	ND		11/09/20	15:46	BA	452037
trans-1,2-Dichloroethene	ETO15	1.00	0.48	2.0	ND	ND		11/09/20	15:46	BA	452037
Hexane	ETO15	1.00	0.46	1.8	ND	ND		11/09/20	15:46	BA	452037
MTBE	ETO15	1.00	0.44	1.8	ND	ND		11/09/20	15:46	BA	452037
tert-Butanol	ETO15	1.00	0.62	1.5	ND	ND		11/09/20	15:46	BA	452037
Diisopropyl ether (DIPE)	ETO15	1.00	0.74	2.1	ND	ND		11/09/20	15:46	BA	452037
1,1-Dichloroethane	ETO15	1.00	0.54	2.0	ND	ND		11/09/20	15:46	BA	452037
ETBE	ETO15	1.00	0.33	2.1	ND	ND		11/09/20	15:46	BA	452037
cis-1,2-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		11/09/20	15:46	BA	452037
Chloroform	ETO15	1.00	0.97	2.4	ND	ND		11/09/20	15:46	BA	452037

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	SG-38-10	**Lab Sample ID:**	2011049-003A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/05/20 / 8:15	**Certified Clean WO # :**	
Canister/Tube ID:	N3950	**Received PSI :**	13.5
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/9/20	7:00:00AM
Prep Batch ID:	1126930	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Vinyl Acetate	ETO15	1.00	0.76	1.8	ND	ND		11/09/20	15:46	BA	452037
Carbon Tetrachloride	ETO15	1.00	1.1	3.1	ND	ND		11/09/20	15:46	BA	452037
1,1,1-Trichloroethane	ETO15	1.00	0.79	2.7	ND	ND		11/09/20	15:46	BA	452037
2-Butanone (MEK)	ETO15	1.00	0.39	1.5	ND	ND		11/09/20	15:46	BA	452037
Ethyl Acetate	ETO15	1.00	0.48	1.8	ND	ND		11/09/20	15:46	BA	452037
Tetrahydrofuran	ETO15	1.00	0.45	1.5	ND	ND		11/09/20	15:46	BA	452037
Benzene	ETO15	1.00	0.44	1.6	ND	ND		11/09/20	15:46	BA	452037
TAME	ETO15	1.00	0.67	2.1	ND	ND		11/09/20	15:46	BA	452037
1,2-Dichloroethane (EDC)	ETO15	1.00	0.42	2.0	ND	ND		11/09/20	15:46	BA	452037
Trichloroethylene	ETO15	1.00	0.81	2.7	ND	ND		11/09/20	15:46	BA	452037
1,2-Dichloropropane	ETO15	1.00	0.76	2.3	ND	ND		11/09/20	15:46	BA	452037
Bromodichloromethane	ETO15	1.00	0.74	3.4	ND	ND		11/09/20	15:46	BA	452037
1,4-Dioxane	ETO15	1.00	1.8	3.6	ND	ND		11/09/20	15:46	BA	452037
trans-1,3-Dichloropropene	ETO15	1.00	1.1	2.3	ND	ND		11/09/20	15:46	BA	452037
Toluene	ETO15	1.00	0.75	1.9	5.3	1.41		11/09/20	15:46	BA	452037
4-Methyl-2-Pentanone (MIBK)	ETO15	1.00	0.75	2.1	ND	ND		11/09/20	15:46	BA	452037
cis-1,3-Dichloropropene	ETO15	1.00	0.42	2.3	ND	ND		11/09/20	15:46	BA	452037
Tetrachloroethylene	ETO15	1.00	1.5	3.4	4.7	0.69		11/09/20	15:46	BA	452037
1,1,2-Trichloroethane	ETO15	1.00	0.58	2.7	ND	ND		11/09/20	15:46	BA	452037
Dibromochloromethane	ETO15	1.00	1.1	4.3	ND	ND		11/09/20	15:46	BA	452037
1,2-Dibromoethane (EDB)	ETO15	1.00	0.74	3.8	ND	ND		11/09/20	15:46	BA	452037
2-Hexanone	ETO15	1.00	0.65	2.1	ND	ND		11/09/20	15:46	BA	452037
Ethyl Benzene	ETO15	1.00	0.63	2.2	ND	ND		11/09/20	15:46	BA	452037
Chlorobenzene	ETO15	1.00	0.60	2.3	ND	ND		11/09/20	15:46	BA	452037
1,1,1,2-Tetrachloroethane	ETO15	1.00	0.84	3.4	ND	ND		11/09/20	15:46	BA	452037
m,p-Xylene	ETO15	1.00	0.98	2.2	ND	ND		11/09/20	15:46	BA	452037
o-Xylene	ETO15	1.00	0.30	2.2	ND	ND		11/09/20	15:46	BA	452037
Styrene	ETO15	1.00	0.46	2.1	ND	ND		11/09/20	15:46	BA	452037
Bromoform	ETO15	1.00	1.3	5.2	ND	ND		11/09/20	15:46	BA	452037
1,1,2,2-Tetrachloroethane	ETO15	1.00	0.82	3.4	ND	ND		11/09/20	15:46	BA	452037
4-Ethyl Toluene	ETO15	1.00	0.55	2.5	ND	ND		11/09/20	15:46	BA	452037
1,3,5-Trimethylbenzene	ETO15	1.00	0.30	2.5	ND	ND		11/09/20	15:46	BA	452037
1,2,4-Trimethylbenzene	ETO15	1.00	0.60	2.5	ND	ND		11/09/20	15:46	BA	452037

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	SG-38-10	**Lab Sample ID:**	2011049-003A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/05/20 / 8:15	**Certified Clean WO # :**	
Canister/Tube ID:	N3950	**Received PSI :**	13.5
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/9/20	7:00:00AM
Prep Batch ID:	1126930	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
1,4-Dichlorobenzene	ETO15	1.00	0.75	3.0	ND	ND		11/09/20	15:46	BA	452037
1,3-Dichlorobenzene	ETO15	1.00	1.3	3.0	ND	ND		11/09/20	15:46	BA	452037
1,2-Dichlorobenzene	ETO15	1.00	1.1	3.0	ND	ND		11/09/20	15:46	BA	452037
Hexachlorobutadiene	ETO15	1.00	1.9	5.3	ND	ND		11/09/20	15:46	BA	452037
1,2,4-Trichlorobenzene	ETO15	1.00	2.2	3.7	ND	ND		11/09/20	15:46	BA	452037
Naphthalene	ETO15	1.00	1.3	2.6	ND	ND		11/09/20	15:46	BA	452037
(S) 4-Bromofluorobenzene	ETO15	1.00	50	150	100 %			11/09/20	15:46	BA	452037

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	SG-34-10	**Lab Sample ID:**	2011049-004A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/05/20 / 9:12	**Certified Clean WO # :**	
Canister/Tube ID:	6106	**Received PSI :**	11.6
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	FG-P	**Prep Batch Date/Time:**	11/18/20 7:35:00PM
Prep Batch ID:	1127231	**Prep Analyst:**	BPATEL

Parameters:	Analysis Method	DF	MDL %	PQL %	Results %	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Oxygen	D1946	2.50	0.026	0.13	15			11/19/20	11:39	BP	452322
Methane	D1946	2.50	0.0059	0.013	ND			11/19/20	11:39	BP	452322

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/9/20 7:00:00AM
Prep Batch ID:	1126930	**Prep Analyst:**	BALI

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	ETO15	1.00	1.6	2.5	ND	ND		11/09/20	16:15	BA	452037
1,1-Difluoroethane	ETO15	1.00	0.35	14	ND	ND		11/09/20	16:15	BA	452037
1,2-Dichlorotetrafluoroethane	ETO15	1.00	1.4	3.5	ND	ND		11/09/20	16:15	BA	452037
Chloromethane	ETO15	1.00	2.0	4.1	ND	ND		11/09/20	16:15	BA	452037
Vinyl Chloride	ETO15	1.00	0.23	1.3	ND	ND		11/09/20	16:15	BA	452037
1,3-Butadiene	ETO15	1.00	0.34	1.1	ND	ND		11/09/20	16:15	BA	452037
Bromomethane	ETO15	1.00	0.66	1.9	ND	ND		11/09/20	16:15	BA	452037
Chloroethane	ETO15	1.00	0.81	1.3	ND	ND		11/09/20	16:15	BA	452037
Trichlorofluoromethane	ETO15	1.00	0.56	2.8	ND	ND		11/09/20	16:15	BA	452037
1,1-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		11/09/20	16:15	BA	452037
Freon 113	ETO15	1.00	1.0	3.8	ND	ND		11/09/20	16:15	BA	452037
Carbon Disulfide	ETO15	1.00	0.37	1.6	ND	ND		11/09/20	16:15	BA	452037
2-Propanol (Isopropyl Alcohol)	ETO15	1.00	1.3	12	ND	ND		11/09/20	16:15	BA	452037
Methylene Chloride	ETO15	1.00	0.70	10	ND	ND		11/09/20	16:15	BA	452037
Acetone	ETO15	1.00	0.40	12	ND	ND		11/09/20	16:15	BA	452037
trans-1,2-Dichloroethene	ETO15	1.00	0.48	2.0	ND	ND		11/09/20	16:15	BA	452037
Hexane	ETO15	1.00	0.46	1.8	ND	ND		11/09/20	16:15	BA	452037
MTBE	ETO15	1.00	0.44	1.8	ND	ND		11/09/20	16:15	BA	452037
tert-Butanol	ETO15	1.00	0.62	1.5	ND	ND		11/09/20	16:15	BA	452037
Diisopropyl ether (DIPE)	ETO15	1.00	0.74	2.1	ND	ND		11/09/20	16:15	BA	452037
1,1-Dichloroethane	ETO15	1.00	0.54	2.0	ND	ND		11/09/20	16:15	BA	452037
ETBE	ETO15	1.00	0.33	2.1	ND	ND		11/09/20	16:15	BA	452037
cis-1,2-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		11/09/20	16:15	BA	452037
Chloroform	ETO15	1.00	0.97	2.4	ND	ND		11/09/20	16:15	BA	452037

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	SG-34-10	**Lab Sample ID:**	2011049-004A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/05/20 / 9:12	**Certified Clean WO # :**	
Canister/Tube ID:	6106	**Received PSI :**	11.6
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/9/20	7:00:00AM
Prep Batch ID:	1126930	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Vinyl Acetate	ETO15	1.00	0.76	1.8	ND	ND		11/09/20	16:15	BA	452037
Carbon Tetrachloride	ETO15	1.00	1.1	3.1	ND	ND		11/09/20	16:15	BA	452037
1,1,1-Trichloroethane	ETO15	1.00	0.79	2.7	ND	ND		11/09/20	16:15	BA	452037
2-Butanone (MEK)	ETO15	1.00	0.39	1.5	ND	ND		11/09/20	16:15	BA	452037
Ethyl Acetate	ETO15	1.00	0.48	1.8	ND	ND		11/09/20	16:15	BA	452037
Tetrahydrofuran	ETO15	1.00	0.45	1.5	ND	ND		11/09/20	16:15	BA	452037
Benzene	ETO15	1.00	0.44	1.6	ND	ND		11/09/20	16:15	BA	452037
TAME	ETO15	1.00	0.67	2.1	ND	ND		11/09/20	16:15	BA	452037
1,2-Dichloroethane (EDC)	ETO15	1.00	0.42	2.0	ND	ND		11/09/20	16:15	BA	452037
Trichloroethylene	ETO15	1.00	0.81	2.7	ND	ND		11/09/20	16:15	BA	452037
1,2-Dichloropropane	ETO15	1.00	0.76	2.3	ND	ND		11/09/20	16:15	BA	452037
Bromodichloromethane	ETO15	1.00	0.74	3.4	ND	ND		11/09/20	16:15	BA	452037
1,4-Dioxane	ETO15	1.00	1.8	3.6	ND	ND		11/09/20	16:15	BA	452037
trans-1,3-Dichloropropene	ETO15	1.00	1.1	2.3	ND	ND		11/09/20	16:15	BA	452037
Toluene	ETO15	1.00	0.75	1.9	3.3	0.88		11/09/20	16:15	BA	452037
4-Methyl-2-Pentanone (MIBK)	ETO15	1.00	0.75	2.1	ND	ND		11/09/20	16:15	BA	452037
cis-1,3-Dichloropropene	ETO15	1.00	0.42	2.3	ND	ND		11/09/20	16:15	BA	452037
Tetrachloroethylene	ETO15	1.00	1.5	3.4	ND	ND		11/09/20	16:15	BA	452037
1,1,2-Trichloroethane	ETO15	1.00	0.58	2.7	ND	ND		11/09/20	16:15	BA	452037
Dibromochloromethane	ETO15	1.00	1.1	4.3	ND	ND		11/09/20	16:15	BA	452037
1,2-Dibromoethane (EDB)	ETO15	1.00	0.74	3.8	ND	ND		11/09/20	16:15	BA	452037
2-Hexanone	ETO15	1.00	0.65	2.1	ND	ND		11/09/20	16:15	BA	452037
Ethyl Benzene	ETO15	1.00	0.63	2.2	ND	ND		11/09/20	16:15	BA	452037
Chlorobenzene	ETO15	1.00	0.60	2.3	ND	ND		11/09/20	16:15	BA	452037
1,1,1,2-Tetrachloroethane	ETO15	1.00	0.84	3.4	ND	ND		11/09/20	16:15	BA	452037
m,p-Xylene	ETO15	1.00	0.98	2.2	ND	ND		11/09/20	16:15	BA	452037
o-Xylene	ETO15	1.00	0.30	2.2	ND	ND		11/09/20	16:15	BA	452037
Styrene	ETO15	1.00	0.46	2.1	ND	ND		11/09/20	16:15	BA	452037
Bromoform	ETO15	1.00	1.3	5.2	ND	ND		11/09/20	16:15	BA	452037
1,1,2,2-Tetrachloroethane	ETO15	1.00	0.82	3.4	ND	ND		11/09/20	16:15	BA	452037
4-Ethyl Toluene	ETO15	1.00	0.55	2.5	ND	ND		11/09/20	16:15	BA	452037
1,3,5-Trimethylbenzene	ETO15	1.00	0.30	2.5	ND	ND		11/09/20	16:15	BA	452037
1,2,4-Trimethylbenzene	ETO15	1.00	0.60	2.5	ND	ND		11/09/20	16:15	BA	452037

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	SG-34-10	**Lab Sample ID:**	2011049-004A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Air
Project Number:	3359.210.001		
Date/Time Sampled:	11/05/20 / 9:12	**Certified Clean WO # :**	
Canister/Tube ID:	6106	**Received PSI :**	11.6
Collection Volume (L):		**Corrected PSI :**	
SDG:			

Prep Method:	TO15-P	**Prep Batch Date/Time:**	11/9/20	7:00:00AM
Prep Batch ID:	1126930	**Prep Analyst:**	BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
1,4-Dichlorobenzene	ETO15	1.00	0.75	3.0	ND	ND		11/09/20	16:15	BA	452037
1,3-Dichlorobenzene	ETO15	1.00	1.3	3.0	ND	ND		11/09/20	16:15	BA	452037
1,2-Dichlorobenzene	ETO15	1.00	1.1	3.0	ND	ND		11/09/20	16:15	BA	452037
Hexachlorobutadiene	ETO15	1.00	1.9	5.3	ND	ND		11/09/20	16:15	BA	452037
1,2,4-Trichlorobenzene	ETO15	1.00	2.2	3.7	ND	ND		11/09/20	16:15	BA	452037
Naphthalene	ETO15	1.00	1.3	2.6	ND	ND		11/09/20	16:15	BA	452037
(S) 4-Bromofluorobenzene	ETO15	1.00	50	150	100 %			11/09/20	16:15	BA	452037

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011049	**Prep Method:**	TO15-P	**Prep Date:**	11/09/20	**Prep Batch:**	1126930
Matrix:	Air	**Analytical Method:**	ETO15	**Analyzed Date:**	11/9/2020	**Analytical Batch:**	452037
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	0.32	0.50	ND	
1,1-Difluoroethane	0.13	5.0	0.81	
1,2-Dichlorotetrafluoroethane	0.20	0.50	ND	
Chloromethane	0.99	2.0	ND	
Vinyl Chloride	0.088	0.50	ND	
1,3-Butadiene	0.15	0.50	ND	
Bromomethane	0.17	0.50	ND	
Chloroethane	0.31	0.50	ND	
Trichlorofluoromethane	0.099	0.50	ND	
1,1-Dichloroethene	0.21	0.50	ND	
Freon 113	0.13	0.50	ND	
Carbon Disulfide	0.12	0.50	0.13	
2-Propanol (Isopropyl Alcohol)	0.52	5.0	ND	
Methylene Chloride	0.20	3.0	ND	
Acetone	0.17	5.0	ND	
trans-1,2-Dichloroethene	0.12	0.50	ND	
Hexane	0.13	0.50	ND	
MTBE	0.12	0.50	ND	
tert-Butanol	0.20	0.50	ND	
Diisopropyl ether (DIPE)	0.18	0.50	ND	
1,1-Dichloroethane	0.13	0.50	ND	
ETBE	0.078	0.50	ND	
cis-1,2-Dichloroethene	0.21	0.50	ND	
Chloroform	0.20	0.50	ND	
Vinyl Acetate	0.22	0.50	ND	
Carbon Tetrachloride	0.18	0.50	ND	
1,1,1-Trichloroethane	0.15	0.50	ND	
2-Butanone (MEK)	0.13	0.50	ND	
Ethyl Acetate	0.13	0.50	0.30	
Tetrahydrofuran	0.15	0.50	ND	
Benzene	0.14	0.50	ND	
TAME	0.16	0.50	ND	
1,2-Dichloroethane (EDC)	0.10	0.50	ND	
Trichloroethylene	0.15	0.50	ND	
1,2-Dichloropropane	0.17	0.50	ND	
Bromodichloromethane	0.11	0.50	ND	
1,4-Dioxane	0.50	1.0	ND	
trans-1,3-Dichloropropene	0.23	0.50	ND	
Toluene	0.20	0.50	0.27	
4-Methyl-2-Pentanone (MIBK)	0.18	0.50	ND	
cis-1,3-Dichloropropene	0.093	0.50	ND	
Tetrachloroethylene	0.22	0.50	ND	

MB Summary Report

Work Order:	2011049	**Prep Method:**	TO15-P	**Prep Date:**	11/09/20	**Prep Batch:**	1126930
Matrix:	Air	**Analytical Method:**	ETO15	**Analyzed Date:**	11/9/2020	**Analytical Batch:**	452037
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
1,1,2-Trichloroethane	0.11	0.50	ND	
Dibromochloromethane	0.13	0.50	ND	
1,2-Dibromoethane (EDB)	0.096	0.50	ND	
2-Hexanone	0.16	0.50	ND	
Ethyl Benzene	0.15	0.50	ND	
Chlorobenzene	0.13	0.50	ND	
1,1,1,2-Tetrachloroethane	0.12	0.50	ND	
m,p-Xylene	0.23	0.50	ND	
o-Xylene	0.070	0.50	ND	
Styrene	0.11	0.50	ND	
Bromoform	0.13	0.50	ND	
1,1,2,2-Tetrachloroethane	0.12	0.50	ND	
4-Ethyl Toluene	0.11	0.50	ND	
1,3,5-Trimethylbenzene	0.061	0.50	ND	
1,2,4-Trimethylbenzene	0.12	0.50	ND	
1,4-Dichlorobenzene	0.12	0.50	ND	
1,3-Dichlorobenzene	0.22	0.50	ND	
1,2-Dichlorobenzene	0.18	0.50	ND	
Hexachlorobutadiene	0.17	0.50	ND	
1,2,4-Trichlorobenzene	0.29	0.50	ND	
Naphthalene	0.24	0.50	ND	
Cyclohexane	0.50	0.50	ND	
Benzyl Chloride	0.20	0.50	ND	
Heptane	0.13	0.50	0.23	
(S) 4-Bromofluorobenzene			91	

Work Order:	2011049	**Prep Method:**	FG-P	**Prep Date:**	11/18/20	**Prep Batch:**	1127231
Matrix:	Air	**Analytical Method:**	D1946	**Analyzed Date:**	11/18/2020	**Analytical Batch:**	452322
Units:	ppmv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Carbon Dioxide	100	500	ND	
Ethene	110	500	ND	
Ethane	130	500	ND	
Hydrogen	180	500	ND	
Oxygen	110	500	ND	
Nitrogen	260	500	ND	
Methane	23	50	ND	
Carbon Monoxide	200	500	ND	

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011049	**Prep Method:**	TO15-P	**Prep Date:**	11/09/20	**Prep Batch:**	1126930
Matrix:	Air	**Analytical Method:**	ETO15	**Analyzed Date:**	11/9/2020	**Analytical Batch:**	452037
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.21	0.50	ND	8.00	129	126	1.96	65 - 135	30	
Benzene	0.14	0.50	0.81	8.00	117	115	1.83	65 - 135	30	
Trichloroethylene	0.15	0.50	ND	8.00	99.8	100	0.500	65 - 135	30	
Toluene	0.20	0.50	ND	8.00	97.2	97.2	0.000	65 - 135	30	
Chlorobenzene	0.13	0.50	ND	8.00	106	105	0.475	65 - 135	30	
(S) 4-Bromofluorobenzene				20.0	90.9	90.7		50 - 150		

Work Order:	2011049	**Prep Method:**	FG-P	**Prep Date:**	11/18/20	**Prep Batch:**	1127231
Matrix:	Air	**Analytical Method:**	D1946	**Analyzed Date:**	11/19/2020	**Analytical Batch:**	452322
Units:	ppmv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Carbon Dioxide	100	500	ND	2500	81.8	76.6	6.06	65 - 135	30	
Ethene	110	500	ND	2500	77.4	80.8	4.56	65 - 135	30	
Ethane	130	500	ND	2500	77.6	81.1	4.53	65 - 135	30	
Hydrogen	180	500	ND	2500	94.4	86.9	8.39	65 - 135	30	
Oxygen	110	500	ND	2500	106	100	6.20	65 - 135	30	
Nitrogen	260	500	ND	2500	118	113	3.81	65 - 135	30	
Methane	230	500	ND	2500	96.2	83.9	13.3	65 - 135	30	
Carbon Monoxide	200	500	ND	2500	100	89.9	10.5	65 - 135	30	

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg/m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the analyte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: Engeo (San Ramon)

Project Name: Brindle Gate

Work Order No.: 2011049

Date and Time Received: 11/5/2020 2:05:00PM

Received By: Lorna Imbat

Physically Logged By: Lorna Imbat

Checklist Completed By: Lorna Imbat

Carrier Name: First Courier

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes
Container/Temp Blank temperature in compliance?	Temperature: °C
Water-VOA vials have zero headspace?	No VOA vials submitted
Water-pH acceptable upon receipt?	N/A

pH Checked by: n/a

pH Adjusted by: n/a

Comments:

Login Summary Report

Client ID:	TL5123	Engeo (San Ramon)	**QC Level:**	II
Project Name:	Brindle Gate		**TAT Requested:**	3 Day Std:3
Project # :	3359.210.001		**Date Received:**	11/5/2020
Report Due Date:	11/20/2020		**Time Received:**	2:05 pm

Comments:

Work Order # : ***2011049***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2011049-001A	SG-36-10	11/05/20 7:31	Air				VOC_A_TO15 VOC_A_FG D1946	
2011049-002A	SG-32-10	11/05/20 7:52	Air				VOC_A_TO15 VOC_A_FG D1946	
2011049-003A	SG-38-10	11/05/20 8:15	Air				VOC_A_TO15 VOC_A_FG D1946	
2011049-004A	SG-34-10	11/05/20 9:12	Air				VOC_A_TO15 VOC_A_FG D1946	

Torrent LABORATORY, INC.

CHAIN OF CUSTODY RECORD

2011049

PROJECT NUMBER: 3359.210.001
PROJECT NAME: Brindle Gate
SAMPLED BY: (SIGNATURE/PRINT) Taunee Werts
PROJECT MANAGER: (SIGNATURE/PRINT) Brooke Spruit
ROUTING: E-MAIL BSpruit, twerts, smunger@engeo.com

SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	TO-15														REMARKS / REQUIRED DETECTION LIMITS
SG-30-10	11/5/20	07:31	AIR	1	1L	N/A	X				-001A										
SG-32-10	↓	07:52	↓	↓	↓	↓	X				-002A										
SG-38-10		08:15					X				-003A										
SG-34-10		09:12					X				-004A										
~~SG-31-10~~																					not enough to sample

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
[signature]	11/5/20 11:05	FCS (courier)			
FCS (courier)	11/5/20 1405	[signature]			
		RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE/TIME	REMARKS	
		[signature]			

DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT; COPY TO PROJECT FIELD FILES

ENGEO INCORPORATED
2010 CROW CANYON PLACE SUITE 250
SAN RAMON, CALIFORNIA 94583
(925) 866-9000 FAX (888) 279-2698
WWW.ENGEO.COM

FCS

Summa canisters received at ambient temperature.

Engeo (San Ramon)
2010 Crow Canyon Place,#250
San Ramon, California 94583
Tel: (925) 866-9000
Fax: (925) 866-0199

RE: Brindle Gate

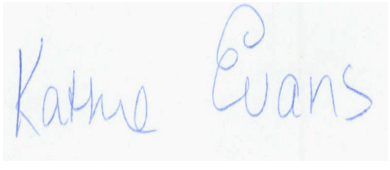
Work Order No.: 2011051

Dear Brooke Spruit:

Torrent Laboratory, Inc. received 20 sample(s) on November 05, 2020 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.



Kathie Evans
Project Manager

November 10, 2020
Date

Date: 11/10/2020

Client: Engeo (San Ramon)

Project: Brindle Gate

Work Order: 2011051

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date Received: 11/05/20
Date Reported: 11/10/20

S-32-10-S @ 5' 2011051-001

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	3.51	mg/Kg

S-32-10-S @ 10' 2011051-002

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	4	3.4	8.0	25.3	mg/Kg
TPH as Motor Oil (SG)	SW8015B	4	13	40	161	mg/Kg

S-32-10-W @ 5' 2011051-003

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	5.78	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	29.8	mg/Kg

S-32-10-W@10' 2011051-004

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-32-10-N @ 5' 2011051-005

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	2.55	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	13.2	mg/Kg

S-32-10-N @10' 2011051-006

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	8.17	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	84.5	mg/Kg

S-32-10-E @ 5' 2011051-007

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	2.69	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	15.1	mg/Kg

S-32-10-E @10'' 2011051-008

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date Received: 11/05/20
Date Reported: 11/10/20

S-32-10-C @ 5' 2011051-009

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	2	1.7	4.0	19.7	mg/Kg
TPH as Motor Oil (SG)	SW8015B	2	6.4	20	94.0	mg/Kg

S-32-10-C@10' 2011051-010

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	3.09	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	16.7	mg/Kg

S-38-10-E @ 5' 2011051-011

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	3.45	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	39.3	mg/Kg

S-38-10-E @ 10" 2011051-012

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	2.18	mg/Kg

S-38-10-S @ 5' 2011051-013

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	9.67	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	51.6	mg/Kg

S-38-10-S @ 10' 2011051-014

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-38-10-W @ 5' 2011051-015

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-38-10-W@10' 2011051-016

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-38-10-N @ 5' 2011051-017

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	2.13	mg/Kg

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date Received: 11/05/20
Date Reported: 11/10/20

S-38-10-N@10' 2011051-018

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

S-38-10-C @ 5' 2011051-019

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	3.78	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	17.4	mg/Kg

S-38-10-C@10' 2011051-020

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	7.74	mg/Kg
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	29.6	mg/Kg

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-32-10-S @ 5'	**Lab Sample ID:**	2011051-001A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 7:58		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**3.51**	x	mg/Kg	11/08/20	19:23	SN	452026
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/08/20	19:23	SN	452026
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**75.1**		%	11/08/20	19:23	SN	452026

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel and presence of discrete peaks.

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126887 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	14:07	AD	452009
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	14:07	AD	452009
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	14:07	AD	452009
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	14:07	AD	452009
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	14:07	AD	452009
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	14:07	AD	452009
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**79.4**		%	11/09/20	14:07	AD	452009
(S) Toluene-d8	SW8260B		55.2 - 133		**97.3**		%	11/09/20	14:07	AD	452009
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**83.6**		%	11/09/20	14:07	AD	452009

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126888 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	14:07	AD	452009
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**89.1**		%	11/09/20	14:07	AD	452009

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-32-10-S @ 10'	**Lab Sample ID:**	2011051-002A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 8:01		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	4	3.4	8.0	**25.3**	x	mg/Kg	11/09/20	14:59	SN	452027
TPH as Motor Oil (SG)	SW8015B	4	13	40	**161**		mg/Kg	11/09/20	14:59	SN	452027
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**41.4**		%	11/09/20	14:59	SN	452027

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126887 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	14:36	AD	452009
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	14:36	AD	452009
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	14:36	AD	452009
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	14:36	AD	452009
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	14:36	AD	452009
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	14:36	AD	452009
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**75.7**		%	11/09/20	14:36	AD	452009
(S) Toluene-d8	SW8260B		55.2 - 133		**104**		%	11/09/20	14:36	AD	452009
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**80.5**		%	11/09/20	14:36	AD	452009

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126888 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	14:36	AD	452009
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**75.3**		%	11/09/20	14:36	AD	452009

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-32-10-W @ 5'	**Lab Sample ID:**	2011051-003A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 8:04		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**5.78**	x	mg/Kg	11/08/20	20:09	SN	452026
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**29.8**		mg/Kg	11/08/20	20:09	SN	452026
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**72.8**		%	11/08/20	20:09	SN	452026

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126887 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	15:05	AD	452009
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	15:05	AD	452009
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	15:05	AD	452009
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	15:05	AD	452009
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	15:05	AD	452009
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	15:05	AD	452009
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**75.2**		%	11/09/20	15:05	AD	452009
(S) Toluene-d8	SW8260B		55.2 - 133		**99.4**		%	11/09/20	15:05	AD	452009
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**81.7**		%	11/09/20	15:05	AD	452009

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126888 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	15:05	AD	452009
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**83.9**		%	11/09/20	15:05	AD	452009

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-32-10-W@10'	**Lab Sample ID:**	2011051-004A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 8:07		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/08/20	20:32	SN	452026
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/08/20	20:32	SN	452026
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**72.6**		%	11/08/20	20:32	SN	452026

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126887 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	15:35	AD	452009
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	15:35	AD	452009
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	15:35	AD	452009
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	15:35	AD	452009
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	15:35	AD	452009
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	15:35	AD	452009
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**76.7**		%	11/09/20	15:35	AD	452009
(S) Toluene-d8	SW8260B		55.2 - 133		**95.7**		%	11/09/20	15:35	AD	452009
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**79.9**		%	11/09/20	15:35	AD	452009

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126888 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	15:35	AD	452009
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**86.7**		%	11/09/20	15:35	AD	452009

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-32-10-N @ 5'	**Lab Sample ID:**	2011051-005A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 8:09		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**2.55**	x	mg/Kg	11/08/20	20:55	SN	452026
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**13.2**		mg/Kg	11/08/20	20:55	SN	452026
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**75.7**		%	11/08/20	20:55	SN	452026

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126887 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	16:04	AD	452009
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	16:04	AD	452009
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	16:04	AD	452009
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	16:04	AD	452009
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	16:04	AD	452009
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	16:04	AD	452009
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**68.3**		%	11/09/20	16:04	AD	452009
(S) Toluene-d8	SW8260B		55.2 - 133		**94.7**		%	11/09/20	16:04	AD	452009
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**81.2**		%	11/09/20	16:04	AD	452009

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126888 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	16:04	AD	452009
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**86.0**		%	11/09/20	16:04	AD	452009

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-32-10-N @10'	**Lab Sample ID:**	2011051-006A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 8:11		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**8.17**	x	mg/Kg	11/08/20	21:19	SN	452026
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**84.5**		mg/Kg	11/08/20	21:19	SN	452026
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**56.3**		%	11/08/20	21:19	SN	452026

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126887 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	16:33	AD	452009
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	16:33	AD	452009
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	16:33	AD	452009
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	16:33	AD	452009
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	16:33	AD	452009
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	16:33	AD	452009
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**68.6**		%	11/09/20	16:33	AD	452009
(S) Toluene-d8	SW8260B		55.2 - 133		**94.3**		%	11/09/20	16:33	AD	452009
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**79.8**		%	11/09/20	16:33	AD	452009

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126888 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	16:33	AD	452009
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**84.8**		%	11/09/20	16:33	AD	452009

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-32-10-E @ 5'	**Lab Sample ID:**	2011051-007A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 8:14		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**2.69**	x	mg/Kg	11/08/20	21:42	SN	452026
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**15.1**		mg/Kg	11/08/20	21:42	SN	452026
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**63.7**		%	11/08/20	21:42	SN	452026

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126887 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	17:02	AD	452009
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	17:02	AD	452009
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	17:02	AD	452009
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	17:02	AD	452009
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	17:02	AD	452009
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	17:02	AD	452009
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**66.4**		%	11/09/20	17:02	AD	452009
(S) Toluene-d8	SW8260B		55.2 - 133		**95.3**		%	11/09/20	17:02	AD	452009
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**80.7**		%	11/09/20	17:02	AD	452009

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126888 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	17:02	AD	452009
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**87.5**		%	11/09/20	17:02	AD	452009

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-32-10-E @10"	**Lab Sample ID:**	2011051-008A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 8:15		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/08/20	22:05	SN	452026
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/08/20	22:05	SN	452026
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**73.1**		%	11/08/20	22:05	SN	452026

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126887 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	17:32	AD	452009
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	17:32	AD	452009
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	17:32	AD	452009
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	17:32	AD	452009
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	17:32	AD	452009
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	17:32	AD	452009
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**69.6**		%	11/09/20	17:32	AD	452009
(S) Toluene-d8	SW8260B		55.2 - 133		**98.5**		%	11/09/20	17:32	AD	452009
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**79.5**		%	11/09/20	17:32	AD	452009

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126888 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	17:32	AD	452009
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**74.4**		%	11/09/20	17:32	AD	452009

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-32-10-C @ 5'	**Lab Sample ID:**	2011051-009A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 8:29		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	2	1.7	4.0	**19.7**	x	mg/Kg	11/09/20	15:22	SN	452027
TPH as Motor Oil (SG)	SW8015B	2	6.4	20	**94.0**		mg/Kg	11/09/20	15:22	SN	452027
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**71.1**		%	11/09/20	15:22	SN	452027

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126887 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	18:01	AD	452009
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	18:01	AD	452009
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	18:01	AD	452009
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	18:01	AD	452009
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	18:01	AD	452009
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	18:01	AD	452009
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**70.6**		%	11/09/20	18:01	AD	452009
(S) Toluene-d8	SW8260B		55.2 - 133		**91.7**		%	11/09/20	18:01	AD	452009
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**76.3**		%	11/09/20	18:01	AD	452009

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126888 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	18:01	AD	452009
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**82.0**		%	11/09/20	18:01	AD	452009

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-32-10-C@10'	**Lab Sample ID:**	2011051-010A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 8:30		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**3.09**	x	mg/Kg	11/08/20	22:51	SN	452026
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**16.7**		mg/Kg	11/08/20	22:51	SN	452026
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**65.4**		%	11/08/20	22:51	SN	452026

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126887 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	18:30	AD	452009
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	18:30	AD	452009
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	18:30	AD	452009
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	18:30	AD	452009
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	18:30	AD	452009
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	18:30	AD	452009
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**65.8**		%	11/09/20	18:30	AD	452009
(S) Toluene-d8	SW8260B		55.2 - 133		**92.9**		%	11/09/20	18:30	AD	452009
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**78.0**		%	11/09/20	18:30	AD	452009

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126888 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	18:30	AD	452009
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**80.4**		%	11/09/20	18:30	AD	452009

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-38-10-E @ 5'	**Lab Sample ID:**	2011051-011A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 9:11		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**3.45**	x	mg/Kg	11/09/20	0:01	SN	452026
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**39.3**		mg/Kg	11/09/20	0:01	SN	452026
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**59.0**		%	11/09/20	0:01	SN	452026

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126887 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	18:59	AD	452009
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	18:59	AD	452009
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	18:59	AD	452009
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	18:59	AD	452009
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	18:59	AD	452009
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	18:59	AD	452009
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**68.5**		%	11/09/20	18:59	AD	452009
(S) Toluene-d8	SW8260B		55.2 - 133		**93.2**		%	11/09/20	18:59	AD	452009
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**79.6**		%	11/09/20	18:59	AD	452009

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126888 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	18:59	AD	452009
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**74.5**		%	11/09/20	18:59	AD	452009

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-38-10-E @ 10"	**Lab Sample ID:**	2011051-012A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 9:14		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**2.18**	x	mg/Kg	11/09/20	0:24	SN	452026
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/09/20	0:24	SN	452026
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**46.3**		%	11/09/20	0:24	SN	452026

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range quantified as diesel and presence of discrete peaks.

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126887 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	19:28	AD	452009
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	19:28	AD	452009
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	19:28	AD	452009
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	19:28	AD	452009
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	19:28	AD	452009
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	19:28	AD	452009
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**68.5**		%	11/09/20	19:28	AD	452009
(S) Toluene-d8	SW8260B		55.2 - 133		**93.1**		%	11/09/20	19:28	AD	452009
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**82.0**		%	11/09/20	19:28	AD	452009

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126888 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	19:28	AD	452009
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**87.4**		%	11/09/20	19:28	AD	452009

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-38-10-S @ 5'	**Lab Sample ID:**	2011051-013A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 9:17		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**9.67**	x	mg/Kg	11/09/20	0:47	SN	452026
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**51.6**		mg/Kg	11/09/20	0:47	SN	452026
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**74.7**		%	11/09/20	0:47	SN	452026

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126887 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	19:57	AD	452009
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	19:57	AD	452009
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	19:57	AD	452009
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	19:57	AD	452009
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	19:57	AD	452009
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	19:57	AD	452009
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**69.5**		%	11/09/20	19:57	AD	452009
(S) Toluene-d8	SW8260B		55.2 - 133		**95.0**		%	11/09/20	19:57	AD	452009
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**80.2**		%	11/09/20	19:57	AD	452009

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 9:49:00AM
Prep Batch ID: 1126888 **Prep Analyst:** ADEB

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	19:57	AD	452009
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**77.6**		%	11/09/20	19:57	AD	452009

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-38-10-S @ 10'	**Lab Sample ID:**	2011051-014A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 9:19		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/09/20	1:10	SN	452026
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/09/20	1:10	SN	452026
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**63.4**		%	11/09/20	1:10	SN	452026

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 10:34:00AM
Prep Batch ID: 1126894 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	19:15	JZ	452015
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	19:15	JZ	452015
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	19:15	JZ	452015
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	19:15	JZ	452015
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	19:15	JZ	452015
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	19:15	JZ	452015
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**148**		%	11/09/20	19:15	JZ	452015
(S) Toluene-d8	SW8260B		55.2 - 133		**114**		%	11/09/20	19:15	JZ	452015
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**108**		%	11/09/20	19:15	JZ	452015

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 10:34:00AM
Prep Batch ID: 1126895 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	19:15	JZ	452015
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**45.1**		%	11/09/20	19:15	JZ	452015

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-38-10-W @ 5'	**Lab Sample ID:**	2011051-015A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 9:25		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/09/20	1:33	SN	452026
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/09/20	1:33	SN	452026
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**75.3**		%	11/09/20	1:33	SN	452026

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 10:34:00AM
Prep Batch ID: 1126894 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	13:43	JZ	452015
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	13:43	JZ	452015
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	13:43	JZ	452015
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	13:43	JZ	452015
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	13:43	JZ	452015
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	13:43	JZ	452015
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**126**		%	11/09/20	13:43	JZ	452015
(S) Toluene-d8	SW8260B		55.2 - 133		**115**		%	11/09/20	13:43	JZ	452015
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**110**		%	11/09/20	13:43	JZ	452015

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 10:34:00AM
Prep Batch ID: 1126895 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	13:43	JZ	452015
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**69.2**		%	11/09/20	13:43	JZ	452015

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-38-10-W@10'	**Lab Sample ID:**	2011051-016A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 9:29		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/09/20	1:56	SN	452026
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/09/20	1:56	SN	452026
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**58.8**		%	11/09/20	1:56	SN	452026

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 10:34:00AM
Prep Batch ID: 1126894 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	14:20	JZ	452015
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	14:20	JZ	452015
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	14:20	JZ	452015
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	14:20	JZ	452015
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	14:20	JZ	452015
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	14:20	JZ	452015
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**125**		%	11/09/20	14:20	JZ	452015
(S) Toluene-d8	SW8260B		55.2 - 133		**117**		%	11/09/20	14:20	JZ	452015
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**111**		%	11/09/20	14:20	JZ	452015

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 10:34:00AM
Prep Batch ID: 1126895 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	14:20	JZ	452015
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**87.8**		%	11/09/20	14:20	JZ	452015

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-38-10-N @ 5'	**Lab Sample ID:**	2011051-017A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 9:33		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**2.13**	x	mg/Kg	11/09/20	2:19	SN	452026
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/09/20	2:19	SN	452026
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**73.2**		%	11/09/20	2:19	SN	452026

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 10:34:00AM
Prep Batch ID: 1126894 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	14:50	JZ	452015
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	14:50	JZ	452015
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	14:50	JZ	452015
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	14:50	JZ	452015
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	14:50	JZ	452015
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	14:50	JZ	452015
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**133**		%	11/09/20	14:50	JZ	452015
(S) Toluene-d8	SW8260B		55.2 - 133		**117**		%	11/09/20	14:50	JZ	452015
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**115**		%	11/09/20	14:50	JZ	452015

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 10:34:00AM
Prep Batch ID: 1126895 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	14:50	JZ	452015
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**74.8**		%	11/09/20	14:50	JZ	452015

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-38-10-N@10'	**Lab Sample ID:**	2011051-018A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 9:34		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	ND		mg/Kg	11/09/20	2:42	SN	452026
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	ND		mg/Kg	11/09/20	2:42	SN	452026
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**76.8**		%	11/09/20	2:42	SN	452026

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 10:34:00AM
Prep Batch ID: 1126894 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	15:19	JZ	452015
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	15:19	JZ	452015
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	15:19	JZ	452015
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	15:19	JZ	452015
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	15:19	JZ	452015
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	15:19	JZ	452015
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**132**		%	11/09/20	15:19	JZ	452015
(S) Toluene-d8	SW8260B		55.2 - 133		**115**		%	11/09/20	15:19	JZ	452015
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**110**		%	11/09/20	15:19	JZ	452015

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 10:34:00AM
Prep Batch ID: 1126895 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	15:19	JZ	452015
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**63.9**		%	11/09/20	15:19	JZ	452015

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-38-10-C @ 5'	**Lab Sample ID:**	2011051-019A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 9:47		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**3.78**	x	mg/Kg	11/09/20	3:06	SN	452026
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**17.4**		mg/Kg	11/09/20	3:06	SN	452026
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**59.6**		%	11/09/20	3:06	SN	452026

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 10:34:00AM
Prep Batch ID: 1126894 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	15:48	JZ	452015
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	15:48	JZ	452015
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	15:48	JZ	452015
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	15:48	JZ	452015
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	15:48	JZ	452015
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	15:48	JZ	452015
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**134**		%	11/09/20	15:48	JZ	452015
(S) Toluene-d8	SW8260B		55.2 - 133		**118**		%	11/09/20	15:48	JZ	452015
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**112**		%	11/09/20	15:48	JZ	452015

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 10:34:00AM
Prep Batch ID: 1126895 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	15:48	JZ	452015
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**67.8**		%	11/09/20	15:48	JZ	452015

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Brooke Spruit
Engeo (San Ramon)

Date/Time Received: 11/05/20, 2:05 pm
Date Reported: 11/10/20

Client Sample ID:	S-38-10-C@10'	**Lab Sample ID:**	2011051-020A
Project Name/Location:	Brindle Gate	**Sample Matrix:**	Soil
Project Number:	3359.210.001		
Date/Time Sampled:	11/04/20 / 9:48		
SDG:			

Prep Method: 3546_TPHSG **Prep Batch Date/Time:** 11/6/20 2:26:00PM
Prep Batch ID: 1126841 **Prep Analyst:** AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.85	2.0	**7.74**	x	mg/Kg	11/09/20	3:29	SN	452026
TPH as Motor Oil (SG)	SW8015B	1	3.2	10	**29.6**		mg/Kg	11/09/20	3:29	SN	452026
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**72.3**		%	11/09/20	3:29	SN	452026

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range

Prep Method: 5035 **Prep Batch Date/Time:** 11/9/20 10:34:00AM
Prep Batch ID: 1126894 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	11/09/20	16:17	JZ	452015
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	11/09/20	16:17	JZ	452015
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	11/09/20	16:17	JZ	452015
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	16:17	JZ	452015
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	11/09/20	16:17	JZ	452015
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	11/09/20	16:17	JZ	452015
(S) Dibromofluoromethane	SW8260B		59.8 - 148		**133**		%	11/09/20	16:17	JZ	452015
(S) Toluene-d8	SW8260B		55.2 - 133		**119**		%	11/09/20	16:17	JZ	452015
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		**116**		%	11/09/20	16:17	JZ	452015

Prep Method: 5035GRO **Prep Batch Date/Time:** 11/9/20 10:34:00AM
Prep Batch ID: 1126895 **Prep Analyst:** BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	0.043	0.10	ND		mg/Kg	11/09/20	16:17	JZ	452015
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		**66.9**		%	11/09/20	16:17	JZ	452015

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011051	**Prep Method:**	3546_TPHSG	**Prep Date:**	11/06/20	**Prep Batch:**	1126841
Matrix:	Soil	**Analytical Method:**	SW8015B	**Analyzed Date:**	11/8/2020	**Analytical Batch:**	452026
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Diesel (SG)	0.85	2.0	ND	
TPH as Motor Oil (SG)	3.2	10	ND	
Pentacosane (S)			99.2	

Work Order:	2011051	**Prep Method:**	5035	**Prep Date:**	11/09/20	**Prep Batch:**	1126887
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/9/2020	**Analytical Batch:**	452009
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	1.2	10	ND	
Chloromethane	1.8	10	ND	
Vinyl Chloride	2.0	10	ND	
Bromomethane	2.7	10	ND	
Chloroethane	3.0	10	ND	
Trichlorofluoromethane	2.1	10	ND	
1,1-Dichloroethene	2.0	10	ND	
Freon 113	1.9	10	ND	
Methylene Chloride	7.1	10	ND	
trans-1,2-Dichloroethene	2.1	10	ND	
MTBE	2.3	10	ND	
TBA	12	50	ND	
Diisopropyl ether	2.3	10	ND	
1,1-Dichloroethane	2.2	10	ND	
Ethyl tert-Butyl ether	2.3	10	ND	
cis-1,2-Dichloroethene	2.2	10	ND	
2,2-Dichloropropane	1.9	10	ND	
Bromochloromethane	2.3	10	ND	
Chloroform	2.4	10	ND	
Carbon Tetrachloride	2.1	10	ND	
1,1,1-Trichloroethane	2.1	10	ND	
1,1-Dichloropropene	2.0	10	ND	
Benzene	2.2	10	ND	
TAME	2.3	10	ND	
1,2-Dichloroethane	2.3	10	ND	
Trichloroethylene	1.8	10	ND	
Dibromomethane	1.8	10	ND	
1,2-Dichloropropane	1.9	10	ND	
Bromodichloromethane	2.0	10	ND	
cis-1,3-Dichloropropene	1.6	10	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011051	**Prep Method:**	5035	**Prep Date:**	11/09/20	**Prep Batch:**	1126887
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/9/2020	**Analytical Batch:**	452009
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Toluene	1.8	10	ND	
Tetrachloroethylene	1.7	10	ND	
trans-1,3-Dichloropropene	1.6	10	ND	
1,1,2-Trichloroethane	1.8	10	ND	
Dibromochloromethane	1.9	10	ND	
1,3-Dichloropropane	1.8	10	ND	
1,2-Dibromoethane	1.8	10	ND	
Chlorobenzene	1.8	10	ND	
Ethylbenzene	1.7	10	ND	
1,1,1,2-Tetrachloroethane	1.9	10	ND	
m,p-Xylene	3.2	10	ND	
o-Xylene	1.7	10	ND	
Styrene	1.6	10	ND	
Bromoform	1.7	10	ND	
Isopropyl Benzene	1.6	10	ND	
n-Propylbenzene	1.6	10	ND	
Bromobenzene	1.8	10	ND	
1,1,2,2-Tetrachloroethane	1.9	10	ND	
2-Chlorotoluene	1.8	10	ND	
1,3,5-Trimethylbenzene	1.6	10	ND	
1,2,3-Trichloropropane	1.9	10	ND	
4-Chlorotoluene	1.6	10	ND	
tert-Butylbenzene	1.6	10	ND	
1,2,4-Trimethylbenzene	1.4	10	ND	
sec-Butyl Benzene	1.6	10	ND	
p-Isopropyltoluene	1.5	10	ND	
1,3-Dichlorobenzene	1.7	10	ND	
1,4-Dichlorobenzene	1.7	10	ND	
n-Butylbenzene	1.5	10	1.6	
1,2-Dichlorobenzene	1.8	10	ND	
1,2-Dibromo-3-Chloropropane	1.8	10	ND	
Hexachlorobutadiene	1.4	10	1.9	
1,2,4-Trichlorobenzene	1.5	10	2.2	
Naphthalene	1.7	10	2.6	
1,2,3-Trichlorobenzene	1.7	10	2.5	
2-Butanone	2.3	10	ND	
4-Methyl-2-Pentanone (MIBK)	2.0	50	ND	
Hexachloroethane	5.0	10	ND	
1,4-Dioxane	100	200	ND	
2-Hexanone	5.0	20	ND	
Acetone	8.2	20	ND	
(S) Dibromofluoromethane			84.6	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011051	**Prep Method:**	5035	**Prep Date:**	11/09/20	**Prep Batch:**	1126887
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/9/2020	**Analytical Batch:**	452009
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
(S) Toluene-d8			93.4	
(S) 4-Bromofluorobenzene			80.0	

Work Order:	2011051	**Prep Method:**	5035GRO	**Prep Date:**	11/09/20	**Prep Batch:**	1126888
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/9/2020	**Analytical Batch:**	452009
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Gasoline	43	100	ND	
(S) 4-Bromofluorobenzene			96.2	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011051	**Prep Method:**	5035	**Prep Date:**	11/09/20	**Prep Batch:**	1126894
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/9/2020	**Analytical Batch:**	452015
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	0.0012	0.010	ND	
Chloromethane	0.0018	0.010	ND	
Vinyl Chloride	0.0020	0.010	ND	
Bromomethane	0.0027	0.010	ND	
Chloroethane	0.0030	0.010	ND	
Trichlorofluoromethane	0.0021	0.010	ND	
1,1-Dichloroethene	0.0020	0.010	ND	
Freon 113	0.0019	0.010	ND	
Methylene Chloride	0.0071	0.010	ND	
trans-1,2-Dichloroethene	0.0021	0.010	ND	
MTBE	0.0023	0.010	ND	
TBA	0.012	0.050	ND	
Diisopropyl ether	0.0023	0.010	ND	
1,1-Dichloroethane	0.0022	0.010	ND	
Ethyl tert-Butyl ether	0.0023	0.010	ND	
cis-1,2-Dichloroethene	0.0022	0.010	ND	
2,2-Dichloropropane	0.0019	0.010	ND	
Bromochloromethane	0.0023	0.010	ND	
Chloroform	0.0024	0.010	ND	
Carbon Tetrachloride	0.0021	0.010	ND	
1,1,1-Trichloroethane	0.0021	0.010	ND	
1,1-Dichloropropene	0.0020	0.010	ND	
Benzene	0.0022	0.010	ND	
TAME	0.0023	0.010	ND	
1,2-Dichloroethane	0.0023	0.010	ND	
Trichloroethylene	0.0018	0.010	ND	
Dibromomethane	0.0018	0.010	ND	
1,2-Dichloropropane	0.0019	0.010	ND	
Bromodichloromethane	0.0020	0.010	ND	
cis-1,3-Dichloropropene	0.0016	0.010	ND	
Toluene	0.0018	0.010	ND	
Tetrachloroethylene	0.0017	0.010	ND	
trans-1,3-Dichloropropene	0.0016	0.010	ND	
1,1,2-Trichloroethane	0.0018	0.010	ND	
Dibromochloromethane	0.0019	0.010	ND	
1,3-Dichloropropane	0.0018	0.010	ND	
1,2-Dibromoethane	0.0018	0.010	ND	
Chlorobenzene	0.0018	0.010	ND	
Ethylbenzene	0.0017	0.010	ND	
1,1,1,2-Tetrachloroethane	0.0019	0.010	ND	
m,p-Xylene	0.0032	0.010	ND	
o-Xylene	0.0017	0.010	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2011051	**Prep Method:**	5035	**Prep Date:**	11/09/20	**Prep Batch:**	1126894
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/9/2020	**Analytical Batch:**	452015
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Styrene	0.0016	0.010	ND	
Bromoform	0.0017	0.010	ND	
Isopropyl Benzene	0.0016	0.010	ND	
n-Propylbenzene	0.0016	0.010	ND	
Bromobenzene	0.0018	0.010	ND	
1,1,2,2-Tetrachloroethane	0.0019	0.010	ND	
2-Chlorotoluene	0.0018	0.010	ND	
1,3,5-Trimethylbenzene	0.0016	0.010	ND	
1,2,3-Trichloropropane	0.0019	0.010	ND	
4-Chlorotoluene	0.0016	0.010	ND	
tert-Butylbenzene	0.0016	0.010	ND	
1,2,4-Trimethylbenzene	0.0014	0.010	ND	
sec-Butyl Benzene	0.0016	0.010	ND	
p-Isopropyltoluene	0.0015	0.010	ND	
1,3-Dichlorobenzene	0.0017	0.010	ND	
1,4-Dichlorobenzene	0.0017	0.010	ND	
n-Butylbenzene	0.0015	0.010	ND	
1,2-Dichlorobenzene	0.0018	0.010	ND	
1,2-Dibromo-3-Chloropropane	0.0018	0.010	ND	
Hexachlorobutadiene	0.0014	0.010	ND	
1,2,4-Trichlorobenzene	0.0015	0.010	ND	
Naphthalene	0.0017	0.010	0.0058	
1,2,3-Trichlorobenzene	0.0017	0.010	ND	
2-Butanone	0.0023	0.010	ND	
(S) Dibromofluoromethane			110	
(S) Toluene-d8			104	
(S) 4-Bromofluorobenzene			97.6	

Work Order:	2011051	**Prep Method:**	5035GRO	**Prep Date:**	11/09/20	**Prep Batch:**	1126895
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/9/2020	**Analytical Batch:**	452015
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Gasoline	43	100	ND	
(S) 4-Bromofluorobenzene			61.4	

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011051	**Prep Method:**	3546_TPHSG	**Prep Date:**	11/06/20	**Prep Batch:**	1126841
Matrix:	Soil	**Analytical Method:**	SW8015B	**Analyzed Date:**	11/8/2020	**Analytical Batch:**	452026
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	0.85	2.0	ND	25.0	65.0	69.0	6.57	40 - 110	30	
Pentacosane (S)			ND	200	100	102		40 - 129		

Work Order:	2011051	**Prep Method:**	5035	**Prep Date:**	11/09/20	**Prep Batch:**	1126887
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/9/2020	**Analytical Batch:**	452009
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	2.0	10	ND	50.0	97.2	88.8	9.03	53.7 - 139	30	
Benzene	2.2	10	ND	50.0	106	101	5.04	66.5 - 135	30	
Trichloroethylene	1.8	10	ND	50.0	98.5	90.6	8.25	57.5 - 150	30	
Toluene	1.8	10	ND	50.0	102	93.2	9.21	56.8 - 134	30	
Chlorobenzene	1.8	10	ND	50.0	97.3	93.1	4.62	57.4 - 134	30	
(S) Dibromofluoromethane				50.0	97.7	95.0		59.8 - 148		
(S) Toluene-d8				50.0	107	98.9		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	87.7	83.3		55.8 - 141		

Work Order:	2011051	**Prep Method:**	5035	**Prep Date:**	11/09/20	**Prep Batch:**	1126887
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/9/2020	**Analytical Batch:**	452009
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
MTBE	2.34	10.0		50.0	105	99.2	5.30	70 - 130	30	
Benzene	2.2	10		50.0	106	101	5.04	66.5 - 135	30	
Ethylbenzene	1.65	10.0		50.0	98.6	91.5	7.36	70 - 130	30	
Toluene	1.82	10		50.0	102	93.2	9.21	56.8 - 134	30	
m,p-Xylene	3.16	10.0		100	93.2	85.6	8.50	70 - 130	30	
o-Xylene	1.73	10.0		50.0	93.1	88.0	5.74	70 - 130	30	
(S) Dibromofluoromethane				50.0	97.7	95.0		59.8 - 148		
(S) Toluene-d8				50.0	107	98.9		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	87.7	83.3		55.8 - 141		

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011051	**Prep Method:**	5035GRO	**Prep Date:**	11/09/20	**Prep Batch:**	1126888
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/9/2020	**Analytical Batch:**	452009
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	43	100	ND	1000	116	106	9.01	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	96.0	93.5		43.9 - 127		

Work Order:	2011051	**Prep Method:**	5035	**Prep Date:**	11/09/20	**Prep Batch:**	1126894
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/9/2020	**Analytical Batch:**	452015
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	2.0	10	ND	50.0	82.7	79.6	3.70	53.7 - 139	30	
Benzene	2.2	10	ND	50.0	91.6	91.4	0.219	66.5 - 135	30	
Trichloroethylene	1.8	10	ND	50.0	97.0	97.6	0.617	57.5 - 150	30	
Toluene	1.8	10	ND	50.0	105	104	1.15	56.8 - 134	30	
Chlorobenzene	1.8	10	ND	50.0	98.5	98.8	0.203	57.4 - 134	30	
(S) Dibromofluoromethane				50.0	92.1	91.9		59.8 - 148		
(S) Toluene-d8				50.0	101	102		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	97.3	97.9		55.8 - 141		

Work Order:	2011051	**Prep Method:**	5035	**Prep Date:**	11/09/20	**Prep Batch:**	1126894
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/9/2020	**Analytical Batch:**	452015
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
MTBE	2.34	10.0		50.0	85.0	90.0	5.71	70 - 130	30	
Benzene	2.2	10		50.0	91.6	91.4	0.219	66.5 - 135	30	
Ethylbenzene	1.65	10.0		50.0	104	103	0.193	70 - 130	30	
Toluene	1.82	10		50.0	105	104	1.15	56.8 - 134	30	
m,p-Xylene	3.16	10.0		100	109	109	0.000	70 - 130	30	
o-Xylene	1.73	10.0		50.0	93.4	97.1	3.99	70 - 130	30	
(S) Dibromofluoromethane				50.0	92.1	91.9		59.8 - 148		
(S) Toluene-d8				50.0	101	102		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	97.3	97.9		55.8 - 141		

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011051	**Prep Method:**	5035GRO	**Prep Date:**	11/09/20	**Prep Batch:**	1126895
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/9/2020	**Analytical Batch:**	452015
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	43	100	ND	1000	95.1	90.8	4.63	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	100	90.9		43.9 - 127		

Torrent LABORATORY, INC.

MS/MSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2011051	**Prep Method:**	3546_TPHSG	**Prep Date:**	11/06/20	**Prep Batch:**	1126841
Matrix:	**Soil**	**Analytical Method:**	SW8015B	**Analyzed Date:**	11/9/2020	**Analytical Batch:**	452026
Spiked Sample:	2011051-015A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	0.850	2.00	ND	25.0	60.2	60.2	0.000	40 - 110	30	
Pentacosane (S)				200	86.3	87.6		40 - 129		

Work Order:	2011051	**Prep Method:**	5035	**Prep Date:**	11/09/20	**Prep Batch:**	1126887
Matrix:	**Soil**	**Analytical Method:**	SW8260B	**Analyzed Date:**	11/9/2020	**Analytical Batch:**	452009
Spiked Sample:	2011051-005A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.0020	0.010	ND	0.05	81.2	90.1	10.5	55 - 125	30	
Benzene	0.0022	0.010	ND	0.05	92.7	102	9.64	55 - 125	30	
Trichloroethylene	0.0018	0.010	ND	0.05	92.9	88.1	4.72	55 - 125	30	
Toluene	0.0018	0.010	ND	0.05	85.4	89.3	4.50	55 - 125	30	
Chlorobenzene	0.0018	0.010	ND	0.05	89.8	94.2	4.56	55 - 125	30	
(S) Dibromofluoromethane				50	69.0	86.8		59.8 - 148		
(S) Toluene-d8				50	97.6	91.9		55.2 - 133		
(S) 4-Bromofluorobenzene				50	83.6	82.8		55.8 - 141		

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg/m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the analyte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: Engeo (San Ramon)

Project Name: Brindle Gate

Work Order No.: 2011051

Date and Time Received: 11/5/2020 2:05:00PM

Received By: Lorna Imbat

Physically Logged By: Lorna Imbat

Checklist Completed By: Lorna Imbat

Carrier Name: Client Drop Off

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes			
Container/Temp Blank temperature in compliance?	Yes	Temperature:	2.0	°C
Water-VOA vials have zero headspace?	No VOA vials submitted			
Water-pH acceptable upon receipt?	N/A			

pH Checked by: N/A

pH Adjusted by: N/A

Comments:

sample 2011051-005A- 2 sleeves rec'd labeled S-32-10-N@10'; the one with the time of 8:09 was given the ID of 005 S-32-10N@ 5'

Torrent LABORATORY, INC.

Login Summary Report

Client ID: TL5123 Engeo (San Ramon)
Project Name: Brindle Gate
Project # : 3359.210.001
Report Due Date: 11/10/2020

QC Level: II
TAT Requested: 3 Day Std:3
Date Received: 11/5/2020
Time Received: 2:05 pm

Comments:

Work Order # : ***2011051***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2011051-001A	S-32-10-S @ 5'	11/04/20 7:58	Soil	05/03/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
Sample Note:	BTEXM,TPHg							
2011051-002A	S-32-10-S @ 10'	11/04/20 8:01	Soil	05/03/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
2011051-003A	S-32-10-W @ 5'	11/04/20 8:04	Soil	05/03/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
2011051-004A	S-32-10-W@10'	11/04/20 8:07	Soil	05/03/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
2011051-005A	S-32-10-N @ 5'	11/04/20 8:09	Soil	05/03/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
2011051-006A	S-32-10-N @10'	11/04/20 8:11	Soil	05/03/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
2011051-007A	S-32-10-E @ 5'	11/04/20 8:14	Soil	05/03/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
2011051-008A	S-32-10-E @10''	11/04/20 8:15	Soil	05/03/21			TPHDOSG_S_8015B	

Torrent LABORATORY, INC.

Login Summary Report

Client ID: TL5123 Engeo (San Ramon)
Project Name: Brindle Gate
Project # : 3359.210.001
Report Due Date: 11/10/2020

QC Level: II
TAT Requested: 3 Day Std:3
Date Received: 11/5/2020
Time Received: 2:05 pm

Comments:

Work Order # : ***2011051***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2011051-009A	S-32-10-C @ 5'	11/04/20 8:29	Soil	05/03/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
2011051-010A	S-32-10-C@10'	11/04/20 8:30	Soil	05/03/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
2011051-011A	S-38-10-E @ 5'	11/04/20 9:11	Soil	05/03/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011051-012A	S-38-10-E @ 10''	11/04/20 9:14	Soil	05/03/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011051-013A	S-38-10-S @ 5'	11/04/20 9:17	Soil	05/03/21			TPHDOSG_S_8015B VOC_S_GRO mg/Kg VOC_S_8260B mg/Kg	
2011051-014A	S-38-10-S @ 10'	11/04/20 9:19	Soil	05/03/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
2011051-015A	S-38-10-W @ 5'	11/04/20 9:25	Soil	05/03/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
2011051-016A	S-38-10-W@10'	11/04/20 9:29	Soil	05/03/21				

Torrent LABORATORY, INC.

Login Summary Report

Client ID: TL5123 Engeo (San Ramon)
Project Name: Brindle Gate
Project # : 3359.210.001
Report Due Date: 11/10/2020

QC Level: II
TAT Requested: 3 Day Std:3
Date Received: 11/5/2020
Time Received: 2:05 pm

Comments:

Work Order # : ***2011051***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2011051-017A	S-38-10-N @ 5'	11/04/20 9:33	Soil	05/03/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
2011051-018A	S-38-10-N@10'	11/04/20 9:34	Soil	05/03/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
2011051-019A	S-38-10-C @ 5'	11/04/20 9:47	Soil	05/03/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	
2011051-020A	S-38-10-C@10'	11/04/20 9:48	Soil	05/03/21			TPHDOSG_S_8015B VOC_S_8260B mg/Kg VOC_S_GRO mg/Kg	

Torrent LABORATORY, INC.

CHAIN OF CUSTODY RECORD

2011051

PROJECT NUMBER: 3359.210.001 | PROJECT NAME: Brindle Gate

SAMPLED BY: (SIGNATURE/PRINT) Taunee Werts

PROJECT MANAGER: (SIGNATURE/PRINT) Brooke Spruit

ROUTING: E-MAIL Bspruit,twerts,smunger@engeo.com

SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	TPH-g	BTEX (8260)	MTBE	TPH-dmo w/ SG cleanup		REMARKS / REQUIRED DETECTION LIMITS
S-32-10-S@5'	11/4/20	07:58	Soil	1	Sleeve	NA	X	X	X	X	-001A	
@10'		08:01					X	X	X	X	-002A	
S-32-10-W@5'		08:04					X	X	X	X	-003A	
@10'		08:07					X	X	X	X	-004A	
S-32-10-N@5'		08:09					X	X	X	X	-005A	
@10'		08:11					X	X	X	X	-006A	
S-32-10-E@5'		08:14					X	X	X	X	-007A	
@10'		08:15					X	X	X	X	-008A	
S-32-10-C@5'		08:29					X	X	X	X	-009A	
@10'		08:30					X	X	X	X	-010A	
S-38-10-E@5'		09:11					X	X	X	X	-011A	
@10'		09:14					X	X	X	X	-012A	
S-38-10-S@5'		09:17					X	X	X	X	-013A	
@10'		09:19					X	X	X	X	-014A	
S-38-10-W@5'		09:25					X	X	X	X	-015A	
@10		09:29					X	X	X	X	-016A	
S-38-10-N@5'		09:33					X	X	X	X	-017A	
@10'		09:34					X	X	X	X	-018A	
S-38-10-C@5'		09:47					X	X	X	X	-019A	
@10'		09:48					X	X	X	X	-020A	

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
	11/5/20 07:00	FCS (courier)			
FCS (courier)	11/5/20 1405				
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE/TIME	REMARKS	

ENGEO INCORPORATED

2010 CROW CANYON PLACE SUITE 250
SAN RAMON, CALIFORNIA 94583
(925) 866-9000 FAX (888) 279-2698
WWW.ENGEO.COM

FCS

Temp = 2° C #2

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APPENDIX B

Johnson & Ettinger Model Outputs

Model Input **Site Name/Run Number:** Example, Run 1

Note:
-Yellow highlighted cells indicate parameters that typically are changed or must be inputted by the user.
-Dotted outline cells indicate default values that may be changed with justification.
-Toxicity values are taken from Regional Screening Level tables. These tables are updated semi-annually and may not reflect the most current toxicity information.

Use English / Metric Converter

Source Characteristics:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Source medium		Source	Exterior Soil Gas					
Soil gas concentration	(ug/m3)	Cmedium	5.1		NA			
Depth below grade to soil gas sample	(m)	Ls	1.83		Vary - 50	NA		
Average vadose zone temperature	(^{o}C)	Ts	25	25	3-30			
Calc: Source vapor concentration	(ug/m3)	Cs	5					
Calc: % of pure component saturated vapor concentration	(%)	%Sat	0.000%					

Chemical:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Chemical Name		Chem	Benzene					
CAS No.		CAS	71-43-2					
Toxicity Factors								
Unit risk factor	$(ug/m^3)^{-1}$	IUR	7.80E-06	7.80E-06	NA	NA		
Mutagenic compound		Mut	No	NA	NA	NA		
Reference concentration	(mg/m^3)	RfC	3.00E-02	3.00E-02	NA	NA		

Chemical Properties:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Pure component water solubility	(mg/L)	S	1.79E+03	1.79E+03	NA	NA		
Henry's Law Constant @ 25^{o}C	(atm-m^3/mol)	Hc	5.55E-03	5.55E-03	NA	NA		
Calc: Henry's Law Constant @ 25^{o}C	(dimensionless)	Hr	2.27E-01	2.27E-01				
Calc: Henry's Law Constant @ system temperature	(dimensionless)	Hs	2.27E-01	2.27E-01				
Diffusivity in air	(cm2/s)	Dair	8.95E-02	8.95E-02	NA	NA		
Diffusivity in water	(cm2/s)	Dwater	1.03E-05	1.03E-05	NA	NA		

Building Characteristics:

Select Building Assumptions
- (●) Use ratio for Qsoil/Qbuilding (recommended if no site specific data available)
- ( ) Specify Qsoil and Qbuilding separately; calculate ratio

	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Building setting		Bldg_Setting	Residential	Residential				
Foundation type		Found_Type	Slab-on-grade	Slab-on-grade				
Depth below grade to base of foundation	(m)	Lb	0.10	0.10	0.1 - 2.44	NA		
Foundation thickness	(m)	Lf	0.10	0.10	0.1 - 0.25	NA		
Fraction of foundation area with cracks	(-)	eta	0.001	0.001	0.00019-0.0019	1.00		
Enclosed space floor area	(m2)	Abf	150.00	150.00	80 - 200	NA		
Enclosed space mixing height	(m)	Hb	2.44	2.44	2.13 - 3.05	NA		
Indoor air exchange rate	(1 / hr)	ach	0.45	0.45	.15-1.26	NA		
Qsoil/Qbuilding	(-)	Qsoil_Qb	0.0030	0.0030	0.0001 - 0.05	1.24		
Calc: Building ventilation rate	(m3/hr)	Qb	164.70	164.70	NA	0.30		
Calc: Average vapor flow rate into building	(m3/hr)	Qsoil	0.49	0.49	NA	NA		

Model Input **Site Name/Run Number:** Example, Run 1

Chemical Name: Benzene CAS No. 71-43-2

Depth below grade to soil gas sample: 1.83 meters

Vadose zone characteristics:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Stratum A (Top of soil profile):								
Stratum A SCS soil type		SCS_A	Silty Clay					
Stratum A thickness (from surface)	(m)	hSA	1.83					
Stratum A total porosity	(-)	nSA	0.481	0.481	NA	0.20		
Stratum A water-filled porosity	(-)	nwSA	0.216	0.216	0.11 - 0.32	0.25		
Stratum A bulk density	(g/cm^3)	rhoSA	1.380	1.380	NA	0.05		
Stratum B (Soil layer below Stratum A):								
Stratum B SCS soil type		SCS_B	Not Present					
Stratum B thickness	(m)	hSB						
Stratum B total porosity	(-)	nSB			NA	NA		
Stratum B water-filled porosity	(-)	nwSB			NA	NA		
Stratum B bulk density	(g/cm^3)	rhoSB			NA	NA		
Stratum C (Soil layer below Stratum B):								
Stratum C SCS soil type		SCS_C	Not Present					
Stratum C thickness	(m)	hSC	0.00					
Stratum C total porosity	(-)	nSC			NA	NA		
Stratum C water-filled porosity	(-)	nwSC			NA	NA		
Stratum C bulk density	(g/cm^3)	rhoSC			NA	NA		
Stratum containing soil gas sample								
Stratum A, B, or C		src_soil	Stratum A					
					NA	NA		
					NA			
					NA			

Exposure Parameters:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Target risk for carcinogens	(-)	Target_CR	1.00E-06	1.00E-06	NA	NA		
Target hazard quotient for non-carcinogens	(-)	Target_HQ	1	1	NA	NA		
Exposure Scenario		Scenario	Residential	Residential				
Averaging time for carcinogens	(yrs)	ATc	70	70	NA	NA		
Averaging time for non-carcinogens	(yrs)	ATnc	26	26	NA	NA		
Exposure duration	(yrs)	ED	26	26	NA	NA		
Exposure frequency	(days/yr)	EF	350	350	NA	NA		
Exposure time	(hrs/24 hrs)	ET	24	24	NA	NA		
Mutagenic mode-of-action factor	(yrs)	MMOAF	72	72	NA	NA	NOTE	MMOAF not relevant for non-mutagenic

Model Output **Site Name/Run Number:** Example, Run 1

Chemical Name: Benzene CAS No. 71-43-2

Range is based on the reasonable range of Qsoil/Qbuilding values, as reported in the literature.

Source to Indoor Air Attenuation Factor	Units	Symbol	Value	Range	Default	Default Range	Flag
Soil gas to indoor air attenuation coefficient	(-)	alpha	7.0E-04	9.0E-05 - 8.9E-04	7.0E-04	9.0E-05 - 8.9E-04	

Predicted Indoor Air Concentration	Units	Symbol	Value	Range	Default	Default Range	Flag
Indoor air concentration due to vapor intrusion	(ug/m3)	Cia	3.6E-03	4.6E-04 - 4.6E-03	3.6E-03	4.6E-04 - 4.6E-03	
	(ppbv)		1.1E-03	1.4E-04 - 1.4E-03	1.1E-03	1.4E-04 - 1.4E-03	

Predicted Vapor Conc. Beneath Foundation	Units	Symbol	Value	Range	Default	Default Range	Flag
Subslab vapor concentration	(ug/m3)	Css	1.2E+00	9.1E-02 - 4.6E+00	1.2E+00	4.6E+00 - 4.6E+01	
	(ppbv)		3.7E-01	2.9E-02 - 1.4E+00	3.7E-01	1.4E+00 - 1.4E+01	

Diffusive Transport Upward Through Vadose Zone	Units	Symbol	Value	Range	Default	Default Range	Flag
Effective diffusion coefficient through Stratum A	(cm2/sec)	DeffA	4.6E-03	-	4.6E-03	-	
Effective diffusion coefficient through Stratum B	(cm2/sec)	DeffB		-		-	
Effective diffusion coefficient through Stratum C	(cm2/sec)	DeffC		-		-	
				-		-	
Effective diffusion coefficient through unsaturated zone	(cm2/sec)	DeffT	4.6E-03	-	4.6E-03	-	

Critical Parameters		Symbol	Value	Range	Default	Default Range	Flag
α for diffusive transport from source to building with dirt floor foundation	(-)	A_Param	9.1E-04	-	9.1E-04		
Pe (Peclet Number) for transport through the foundation (advection / diffusion)	(-)	B_Param	1.9E+02	6.4E+00 - 3.2E+03	1.9E+02	6.4E+00 - 3.2E+03	
α for convective transport from subslab to building	(-)	C_Param	3.0E-03	1.0E-04 - 5.0E-02	3.0E-03	1.0E-04 - 5.0E-02	

Interpretation

Advection is the dominant mechanism across the foundation.
Diffusion through soil and advection through foundation both control intrusio

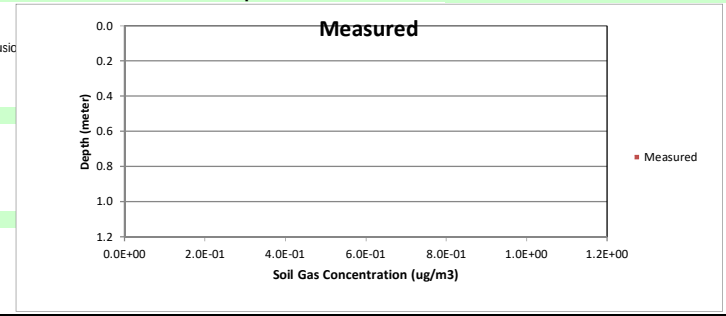
Critical Parameters

Hb, Ls, DeffT, ach, Qsoil_Qb

Non-Critical Parameters

Lf, DeffA, eta

Concentration versus Depth Profile



Model Output **Site Name/Run Number:** Example, Run 1

Chemical Name: Benzene CAS No. 71-43-2

Risk Calculations	Units	Symbol	Value	Range	Default	Range	Flag
Risk-Based Target Screening Levels	**Scenario: Residential**						
Target risk for carcinogens	(-)	Target_CR	1E-06	-	1E-06	-	
Target hazard quotient for noncarcinogens	(-)	Target_HQ	1	-	1	-	
Target indoor air concentration	**(ug/m3)**	**Target_IA**	**3.60E-01**	-	**3.60E-01**	-	Target indoor air concentration based o
	(ppbv)		**1.13E-01**	-	**1.13E-01**	-	
Target soil gas concentration	**(ug/m3)**	**Target_SV**	**5.16E+02**	**4.0E+02 - 4.0E+03**	**5.16E+02**	**4.0E+02 - 4.0E+03**	
Incremental Risk Estimates							
Incremental cancer risk from vapor intrusion	**(-)**	**Cancer_Risk**	**9.89E-09**	**1.3E-09 - 1.3E-08**	**9.89E-09**	**1.3E-09 - 1.3E-08**	
Hazard quotient from vapor intrusion	**(-)**	**HQ**	**1.14E-04**	**1.5E-05 - 1.5E-04**	**1.14E-04**	**1.5E-05 - 1.5E-04**	

Model Input **Site Name/Run Number:** Example, Run 1

Note:
-Yellow highlighted cells indicate parameters that typically are changed or must be inputted by the user.
-Dotted outline cells indicate default values that may be changed with justification.
-Toxicity values are taken from Regional Screening Level tables. These tables are updated semi-annually and may not reflect the most current toxicity information.

Use English / Metric Converter

Source Characteristics:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Source medium		Source	Exterior Soil Gas					
Soil gas concentration	(ug/m3)	Cmedium	8.7		NA			
Depth below grade to soil gas sample	(m)	Ls	1.83		Vary - 50	NA		
Average vadose zone temperature	(^{o}C)	Ts	18.33	25	3-30			
Calc: Source vapor concentration	(ug/m3)	Cs	9					
Calc: % of pure component saturated vapor concentration	(%)	%Sat	0.000%					

Chemical:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Chemical Name		Chem	Chloroform					
CAS No.		CAS	67-66-3					
Toxicity Factors								
Unit risk factor	$(ug/m^3)^{-1}$	IUR	2.30E-05	2.30E-05	NA	NA		
Mutagenic compound		Mut	No	NA	NA	NA		
Reference concentration	(mg/m^3)	RfC	9.80E-02	9.80E-02	NA	NA		

Chemical Properties:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Pure component water solubility	(mg/L)	S	7.95E+03	7.95E+03	NA	NA		
Henry's Law Constant @ 25^{o}C	(atm-m^3/mol)	Hc	3.67E-03	3.67E-03	NA	NA		
Calc: Henry's Law Constant @ 25^{o}C	(dimensionless)	Hr	1.50E-01	1.50E-01				
Calc: Henry's Law Constant @ system temperature	(dimensionless)	Hs	1.15E-01	1.54E-01				
Diffusivity in air	(cm2/s)	Dair	7.69E-02	7.69E-02	NA	NA		
Diffusivity in water	(cm2/s)	Dwater	1.09E-05	1.09E-05	NA	NA		

Building Characteristics:

Select Building Assumptions
- (●) Use ratio for Qsoil/Qbuilding (recommended if no site specific data available)
- ( ) Specify Qsoil and Qbuilding separately; calculate ratio

	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Building setting		Bldg_Setting	Residential	Residential				
Foundation type		Found_Type	Slab-on-grade	Slab-on-grade				
Depth below grade to base of foundation	(m)	Lb	0.10	0.10	0.1 - 2.44	NA		
Foundation thickness	(m)	Lf	0.10	0.10	0.1 - 0.25	NA		
Fraction of foundation area with cracks	(-)	eta	0.001	0.001	0.00019-0.0019	1.00		
Enclosed space floor area	(m2)	Abf	150.00	150.00	80 - 200	NA		
Enclosed space mixing height	(m)	Hb	2.44	2.44	2.13 - 3.05	NA		
Indoor air exchange rate	(1 / hr)	ach	0.45	0.45	.15-1.26	NA		
Qsoil/Qbuilding	(-)	Qsoil_Qb	0.0030	0.0030	0.0001 - 0.05	1.24		
Calc: Building ventilation rate	(m3/hr)	Qb	164.70	164.70	NA	0.30		
Calc: Average vapor flow rate into building	(m3/hr)	Qsoil	0.49	0.49	NA	NA		

Model Input **Site Name/Run Number:** Example, Run 1

Chemical Name: Chloroform CAS No. 67-66-3

Depth below grade to soil gas sample: 1.83 meters

Vadose zone characteristics:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Stratum A (Top of soil profile):								
Stratum A SCS soil type		SCS_A	Silty Clay					
Stratum A thickness (from surface)	(m)	hSA	1.83					
Stratum A total porosity	(-)	nSA	0.481	0.481	NA	0.20		
Stratum A water-filled porosity	(-)	nwSA	0.216	0.216	0.11 - 0.32	0.25		
Stratum A bulk density	(g/cm^3)	rhoSA	1.380	1.380	NA	0.05		
Stratum B (Soil layer below Stratum A):								
Stratum B SCS soil type		SCS_B	Not Present					
Stratum B thickness	(m)	hSB						
Stratum B total porosity	(-)	nSB			NA	NA		
Stratum B water-filled porosity	(-)	nwSB			NA	NA		
Stratum B bulk density	(g/cm^3)	rhoSB			NA	NA		
Stratum C (Soil layer below Stratum B):								
Stratum C SCS soil type		SCS_C	Not Present					
Stratum C thickness	(m)	hSC	0.00					
Stratum C total porosity	(-)	nSC			NA	NA		
Stratum C water-filled porosity	(-)	nwSC			NA	NA		
Stratum C bulk density	(g/cm^3)	rhoSC			NA	NA		
Stratum containing soil gas sample								
Stratum A, B, or C		src_soil	Stratum A					
					NA	NA		
					NA			
					NA			

Exposure Parameters:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Target risk for carcinogens	(-)	Target_CR	1.00E-06	1.00E-06	NA	NA		
Target hazard quotient for non-carcinogens	(-)	Target_HQ	1	1	NA	NA		
Exposure Scenario		Scenario	Residential	Residential				
Averaging time for carcinogens	(yrs)	ATc	70	70	NA	NA		
Averaging time for non-carcinogens	(yrs)	ATnc	26	26	NA	NA		
Exposure duration	(yrs)	ED	26	26	NA	NA		
Exposure frequency	(days/yr)	EF	350	350	NA	NA		
Exposure time	(hrs/24 hrs)	ET	24	24	NA	NA		
Mutagenic mode-of-action factor	(yrs)	MMOAF	72	72	NA	NA	NOTE	MMOAF not relevant for non-mutagenic

Model Output **Site Name/Run Number:** Example, Run 1

Chemical Name: Chloroform CAS No. 67-66-3

Range is based on the reasonable range of Qsoil/Qbuilding values, as reported in the literature.

Source to Indoor Air Attenuation Factor	Units	Symbol	Value	Range	Default	Default Range	Flag
Soil gas to indoor air attenuation coefficient	(-)	alpha	6.2E-04	8.9E-05 - 7.7E-04	6.2E-04	8.9E-05 - 7.7E-04	

Predicted Indoor Air Concentration	Units	Symbol	Value	Range	Default	Default Range	Flag
Indoor air concentration due to vapor intrusion	(ug/m3)	Cia	5.4E-03	7.7E-04 - 6.7E-03	5.4E-03	7.7E-04 - 6.7E-03	
	(ppbv)		1.1E-03	1.6E-04 - 1.4E-03	1.1E-03	1.6E-04 - 1.4E-03	

Predicted Vapor Conc. Beneath Foundation	Units	Symbol	Value	Range	Default	Default Range	Flag
Subslab vapor concentration	(ug/m3)	Css	1.8E+00	1.3E-01 - 7.7E+00	1.8E+00	7.7E+00 - 6.7E+01	
	(ppbv)		3.7E-01	2.7E-02 - 1.6E+00	3.7E-01	1.6E+00 - 1.4E+01	

Diffusive Transport Upward Through Vadose Zone	Units	Symbol	Value	Range	Default	Default Range	Flag
Effective diffusion coefficient through Stratum A	(cm2/sec)	DeffA	4.0E-03	-	4.0E-03	-	
Effective diffusion coefficient through Stratum B	(cm2/sec)	DeffB		-		-	
Effective diffusion coefficient through Stratum C	(cm2/sec)	DeffC		-		-	
				-		-	
Effective diffusion coefficient through unsaturated zone	(cm2/sec)	DeffT	4.0E-03	-	4.0E-03	-	

Critical Parameters		Symbol	Value	Range	Default	Default Range	Flag
α for diffusive transport from source to building with dirt floor foundation	(-)	A_Param	7.8E-04	-	7.8E-04		
Pe (Peclet Number) for transport through the foundation (advection / diffusion)	(-)	B_Param	2.2E+02	7.4E+00 - 3.7E+03	2.2E+02	7.4E+00 - 3.7E+03	
α for convective transport from subslab to building	(-)	C_Param	3.0E-03	1.0E-04 - 5.0E-02	3.0E-03	1.0E-04 - 5.0E-02	

Interpretation

Advection is the dominant mechanism across the foundation.
Diffusion through soil and advection through foundation both control intrusio

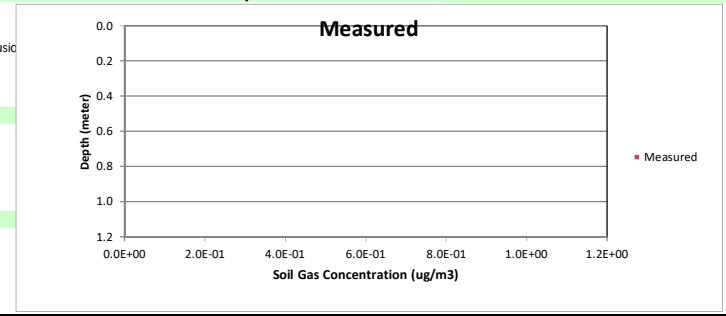
Critical Parameters

Hb, Ls, DeffT, ach, Qsoil_Qb

Non-Critical Parameters

Lf, DeffA, eta

Concentration versus Depth Profile



Model Output **Site Name/Run Number:** Example, Run 1

Chemical Name: Chloroform CAS No. 67-66-3

Risk Calculations	Units	Symbol	Value	Range	Default	Range	Flag
Risk-Based Target Screening Levels	**Scenario: Residential**						
Target risk for carcinogens	(-)	Target_CR	1E-06	-	1E-06	-	
Target hazard quotient for noncarcinogens	(-)	Target_HQ	1	-	1	-	
Target indoor air concentration	**(ug/m3)**	**Target_IA**	**1.22E-01**	-	**1.22E-01**	-	Target indoor air concentration based o
	(ppbv)		**2.50E-02**	-	**2.50E-02**	-	
Target soil gas concentration	**(ug/m3)**	**Target_SV**	**1.97E+02**	**1.6E+02 - 1.4E+03**	**1.97E+02**	**1.6E+02 - 1.4E+03**	
Incremental Risk Estimates							
Incremental cancer risk from vapor intrusion	**(-)**	**Cancer_Risk**	**4.42E-08**	**6.3E-09 - 5.5E-08**	**4.42E-08**	**6.3E-09 - 5.5E-08**	
Hazard quotient from vapor intrusion	**(-)**	**HQ**	**5.28E-05**	**7.6E-06 - 6.6E-05**	**5.28E-05**	**7.6E-06 - 6.6E-05**	

Model Input **Site Name/Run Number:** Example, Run 1

Note:
-Yellow highlighted cells indicate parameters that typically are changed or must be inputted by the user.
-Dotted outline cells indicate default values that may be changed with justification.
-Toxicity values are taken from Regional Screening Level tables. These tables are updated semi-annually and may not reflect the most current toxicity information.

Use English / Metric Converter

Source Characteristics:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Source medium		Source	Exterior Soil Gas					
Soil gas concentration	(ug/m3)	Cmedium	1400		NA			
Depth below grade to soil gas sample	(m)	Ls	1.83		Vary - 50	NA		
Average vadose zone temperature	(^{o}C)	Ts	18.3	25	3-30			
Calc: Source vapor concentration	(ug/m3)	Cs	1400					
Calc: % of pure component saturated vapor concentration	(%)	%Sat	0.003%					

Chemical:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Chemical Name		Chem	Ethylbenzene					
CAS No.		CAS	100-41-4					
Toxicity Factors								
Unit risk factor	$(ug/m^3)^{-1}$	IUR	2.50E-06	2.50E-06	NA	NA		
Mutagenic compound		Mut	No	NA	NA	NA		
Reference concentration	(mg/m^3)	RfC	1.00E+00	1.00E+00	NA	NA		

Chemical Properties:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Pure component water solubility	(mg/L)	S	1.69E+02	1.69E+02	NA	NA		
Henry's Law Constant @ 25^{o}C	(atm-m^3/mol)	Hc	7.88E-03	7.88E-03	NA	NA		
Calc: Henry's Law Constant @ 25^{o}C	(dimensionless)	Hr	3.22E-01	3.22E-01				
Calc: Henry's Law Constant @ system temperature	(dimensionless)	Hs	2.23E-01	3.30E-01				
Diffusivity in air	(cm2/s)	Dair	6.85E-02	6.85E-02	NA	NA		
Diffusivity in water	(cm2/s)	Dwater	8.46E-06	8.46E-06	NA	NA		

Building Characteristics:

Select Building Assumptions

(●) Use ratio for Qsoil/Qbuilding (recommended if no site specific data available)
( ) Specify Qsoil and Qbuilding separately; calculate ratio

	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Building setting		Bldg_Setting	Residential	Residential				
Foundation type		Found_Type	Slab-on-grade	Slab-on-grade				
Depth below grade to base of foundation	(m)	Lb	0.10	0.10	0.1 - 2.44	NA		
Foundation thickness	(m)	Lf	0.10	0.10	0.1 - 0.25	NA		
Fraction of foundation area with cracks	(-)	eta	0.001	0.001	0.00019-0.0019	1.00		
Enclosed space floor area	(m2)	Abf	150.00	150.00	80 - 200	NA		
Enclosed space mixing height	(m)	Hb	2.44	2.44	2.13 - 3.05	NA		
Indoor air exchange rate	(1 / hr)	ach	0.45	0.45	.15-1.26	NA		
Qsoil/Qbuilding	(-)	Qsoil_Qb	0.0030	0.0030	0.0001 - 0.05	1.24		
Calc: Building ventilation rate	(m3/hr)	Qb	164.70	164.70	NA	0.30		
Calc: Average vapor flow rate into building	(m3/hr)	Qsoil	0.49	0.49	NA	NA		

Model Input **Site Name/Run Number:** Example, Run 1

Chemical Name: Ethylbenzene CAS No. 100-41-4

Depth below grade to soil gas sample: 1.83 meters

Vadose zone characteristics:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Stratum A (Top of soil profile):								
Stratum A SCS soil type		SCS_A	Silty Clay					
Stratum A thickness (from surface)	(m)	hSA	1.83					
Stratum A total porosity	(-)	nSA	0.481	0.481	NA	0.20		
Stratum A water-filled porosity	(-)	nwSA	0.216	0.216	0.11 - 0.32	0.25		
Stratum A bulk density	(g/cm^3)	rhoSA	1.380	1.380	NA	0.05		
Stratum B (Soil layer below Stratum A):								
Stratum B SCS soil type		SCS_B	Not Present					
Stratum B thickness	(m)	hSB						
Stratum B total porosity	(-)	nSB			NA	NA		
Stratum B water-filled porosity	(-)	nwSB			NA	NA		
Stratum B bulk density	(g/cm^3)	rhoSB			NA	NA		
Stratum C (Soil layer below Stratum B):								
Stratum C SCS soil type		SCS_C	Not Present					
Stratum C thickness	(m)	hSC	0.00					
Stratum C total porosity	(-)	nSC			NA	NA		
Stratum C water-filled porosity	(-)	nwSC			NA	NA		
Stratum C bulk density	(g/cm^3)	rhoSC			NA	NA		
Stratum containing soil gas sample								
Stratum A, B, or C		src_soil	Stratum A					
					NA	NA		
					NA			
					NA			

Exposure Parameters:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Target risk for carcinogens	(-)	Target_CR	1.00E-06	1.00E-06	NA	NA		
Target hazard quotient for non-carcinogens	(-)	Target_HQ	1	1	NA	NA		
Exposure Scenario		Scenario	Residential	Residential				
Averaging time for carcinogens	(yrs)	ATc	70	70	NA	NA		
Averaging time for non-carcinogens	(yrs)	ATnc	26	26	NA	NA		
Exposure duration	(yrs)	ED	26	26	NA	NA		
Exposure frequency	(days/yr)	EF	350	350	NA	NA		
Exposure time	(hrs/24 hrs)	ET	24	24	NA	NA		
Mutagenic mode-of-action factor	(yrs)	MMOAF	72	72	NA	NA	NOTE	MMOAF not relevant for non-mutagenic

Model Output **Site Name/Run Number:** Example, Run 1

Chemical Name: Ethylbenzene **CAS No.** 100-41-4

Range is based on the reasonable range of Qsoil/Qbuilding values, as reported in the literature.

Source to Indoor Air Attenuation Factor	Units	Symbol	Value	Range	Default	Default Range	Flag
Soil gas to indoor air attenuation coefficient	(-)	alpha	5.6E-04	8.7E-05 - 6.9E-04	5.6E-04	8.7E-05 - 6.9E-04	

Predicted Indoor Air Concentration	Units	Symbol	Value	Range	Default	Default Range	Flag
Indoor air concentration due to vapor intrusion	(ug/m3)	Cia	7.9E-01	1.2E-01 - 9.6E-01	7.9E-01	1.2E-01 - 9.6E-01	
	(ppbv)		1.8E-01	2.8E-02 - 2.2E-01	1.8E-01	2.8E-02 - 2.2E-01	

Predicted Vapor Conc. Beneath Foundation	Units	Symbol	Value	Range	Default	Default Range	Flag
Subslab vapor concentration	(ug/m3)	Css	2.6E+02	1.9E+01 - 1.2E+03	2.6E+02	1.2E+03 - 9.6E+03	
	(ppbv)		6.1E+01	4.4E+00 - 2.8E+02	6.1E+01	2.8E+02 - 2.2E+03	

Diffusive Transport Upward Through Vadose Zone	Units	Symbol	Value	Range	Default	Default Range	Flag
Effective diffusion coefficient through Stratum A	(cm2/sec)	DeffA	3.6E-03	-	3.6E-03	-	
Effective diffusion coefficient through Stratum B	(cm2/sec)	DeffB		-		-	
Effective diffusion coefficient through Stratum C	(cm2/sec)	DeffC		-		-	
				-		-	
Effective diffusion coefficient through unsaturated zone	(cm2/sec)	DeffT	3.6E-03	-	3.6E-03	-	

Critical Parameters		Symbol	Value	Range	Default	Default Range	Flag
α for diffusive transport from source to building with dirt floor foundation	(-)	A_Param	7.0E-04	-	7.0E-04		
Pe (Peclet Number) for transport through the foundation (advection / diffusion)	(-)	B_Param	2.5E+02	8.3E+00 - 4.2E+03	2.5E+02	8.3E+00 - 4.2E+03	
α for convective transport from subslab to building	(-)	C_Param	3.0E-03	1.0E-04 - 5.0E-02	3.0E-03	1.0E-04 - 5.0E-02	

Interpretation

Advection is the dominant mechanism across the foundation.
Diffusion through soil and advection through foundation both control intrusio

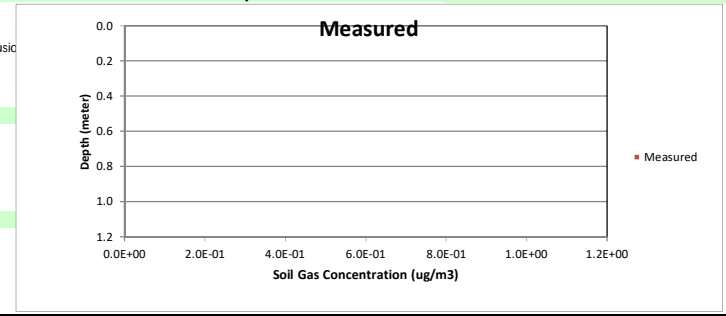
Critical Parameters

Hb, Ls, DeffT, ach, Qsoil_Qb

Non-Critical Parameters

Lf, DeffA, eta

Concentration versus Depth Profile



Model Output **Site Name/Run Number:** Example, Run 1

Chemical Name: Ethylbenzene CAS No. 100-41-4

Risk Calculations	Units	Symbol	Value	Range	Default	Range	Flag
Risk-Based Target Screening Levels	**Scenario: Residential**						
Target risk for carcinogens	(-)	Target_CR	1E-06	-	1E-06	-	
Target hazard quotient for noncarcinogens	(-)	Target_HQ	1	-	1	-	
Target indoor air concentration	**(ug/m3)**	**Target_IA**	**1.12E+00**	-	**1.12E+00**	-	Target indoor air concentration based o
	(ppbv)		**2.59E-01**	-	**2.59E-01**	-	
Target soil gas concentration	**(ug/m3)**	**Target_SV**	**1.99E+03**	**1.6E+03 - 1.3E+04**	**1.99E+03**	**1.6E+03 - 1.3E+04**	
Incremental Risk Estimates							
Incremental cancer risk from vapor intrusion	**(-)**	**Cancer_Risk**	**7.04E-07**	**1.1E-07 - 8.6E-07**	**7.04E-07**	**1.1E-07 - 8.6E-07**	
Hazard quotient from vapor intrusion	**(-)**	**HQ**	**7.58E-04**	**1.2E-04 - 9.2E-04**	**7.58E-04**	**1.2E-04 - 9.2E-04**	

Model Input

Site Name/Run Number: Example, Run 1

Note:
-Yellow highlighted cells indicate parameters that typically are changed or must be inputted by the user.
-Dotted outline cells indicate default values that may be changed with justification.
-Toxicity values are taken from Regional Screening Level tables. These tables are updated semi-annually and may not reflect the most current toxicity information.

Use English / Metric Converter

Source Characteristics:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Source medium		Source	Exterior Soil Gas					
Soil gas concentration	(ug/m3)	Cmedium	6100		NA			
Depth below grade to soil gas sample	(m)	Ls	1.83		Vary - 50	NA		
Average vadose zone temperature	(°C)	Ts	18.3	25	3-30			
Calc: Source vapor concentration	(ug/m3)	Cs	6100					
Calc: % of pure component saturated vapor concentration	(%)	%Sat	0.013%					

Chemical:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Chemical Name		Chem	Xylenes					
CAS No.		CAS	1330-20-7					
Toxicity Factors								
Unit risk factor	$(ug/m^3)^{-1}$	IUR	Not Available	Not Available	NA	NA		No IUR available for this compound.
Mutagenic compound		Mut	No	NA	NA	NA		
Reference concentration	(mg/m^3)	RfC	1.00E-01	1.00E-01	NA	NA		

Chemical Properties:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Pure component water solubility	(mg/L)	S	1.06E+02	1.06E+02	NA	NA		
Henry's Law Constant @ 25°C	(atm-m^3/mol)	Hc	6.63E-03	6.63E-03	NA	NA		
Calc: Henry's Law Constant @ 25°C	(dimensionless)	Hr	2.71E-01	2.71E-01				
Calc: Henry's Law Constant @ system temperature	(dimensionless)	Hs	1.87E-01	2.77E-01				
Diffusivity in air	(cm2/s)	Dair	6.85E-02	6.85E-02	NA	NA		
Diffusivity in water	(cm2/s)	Dwater	8.46E-06	8.46E-06	NA	NA		

Building Characteristics:

Select Building Assumptions

- (●) Use ratio for Qsoil/Qbuilding (recommended if no site specific data available)
- ( ) Specify Qsoil and Qbuilding separately; calculate ratio

	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Building setting		Bldg_Setting	Residential	Residential				
Foundation type		Found_Type	Slab-on-grade	Slab-on-grade				
Depth below grade to base of foundation	(m)	Lb	0.10	0.10	0.1 - 2.44	NA		
Foundation thickness	(m)	Lf	0.10	0.10	0.1 - 0.25	NA		
Fraction of foundation area with cracks	(-)	eta	0.001	0.001	0.00019-0.0019	1.00		
Enclosed space floor area	(m2)	Abf	150.00	150.00	80 - 200	NA		
Enclosed space mixing height	(m)	Hb	2.44	2.44	2.13 - 3.05	NA		
Indoor air exchange rate	(1 / hr)	ach	0.45	0.45	.15-1.26	NA		
Qsoil/Qbuilding	(-)	Qsoil_Qb	0.0030	0.0030	0.0001 - 0.05	1.24		
Calc: Building ventilation rate	(m3/hr)	Qb	164.70	164.70	NA	0.30		
Calc: Average vapor flow rate into building	(m3/hr)	Qsoil	0.49	0.49	NA	NA		

Model Input **Site Name/Run Number:** Example, Run 1

Chemical Name: Xylenes CAS No. 1330-20-7

Depth below grade to soil gas sample: 1.83 meters

Vadose zone characteristics:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Stratum A (Top of soil profile):								
Stratum A SCS soil type		SCS_A	Silty Clay					
Stratum A thickness (from surface)	(m)	hSA	1.83					
Stratum A total porosity	(-)	nSA	0.481	0.481	NA	0.20		
Stratum A water-filled porosity	(-)	nwSA	0.216	0.216	0.11 - 0.32	0.25		
Stratum A bulk density	(g/cm^3)	rhoSA	1.380	1.380	NA	0.05		
Stratum B (Soil layer below Stratum A):								
Stratum B SCS soil type		SCS_B	Not Present					
Stratum B thickness	(m)	hSB						
Stratum B total porosity	(-)	nSB			NA	NA		
Stratum B water-filled porosity	(-)	nwSB			NA	NA		
Stratum B bulk density	(g/cm^3)	rhoSB			NA	NA		
Stratum C (Soil layer below Stratum B):								
Stratum C SCS soil type		SCS_C	Not Present					
Stratum C thickness	(m)	hSC	0.00					
Stratum C total porosity	(-)	nSC			NA	NA		
Stratum C water-filled porosity	(-)	nwSC			NA	NA		
Stratum C bulk density	(g/cm^3)	rhoSC			NA	NA		
Stratum containing soil gas sample								
Stratum A, B, or C		src_soil	Stratum A					
					NA	NA		
					NA			
					NA			

Exposure Parameters:	Units	Symbol	Value	Default	Potential Span	CV	Flag	Comment
Target risk for carcinogens	(-)	Target_CR	1.00E-06	1.00E-06	NA	NA		
Target hazard quotient for non-carcinogens	(-)	Target_HQ	1	1	NA	NA		
Exposure Scenario		Scenario	Residential	Residential				
Averaging time for carcinogens	(yrs)	ATc	70	70	NA	NA		
Averaging time for non-carcinogens	(yrs)	ATnc	26	26	NA	NA		
Exposure duration	(yrs)	ED	26	26	NA	NA		
Exposure frequency	(days/yr)	EF	350	350	NA	NA		
Exposure time	(hrs/24 hrs)	ET	24	24	NA	NA		
Mutagenic mode-of-action factor	(yrs)	MMOAF	72	72	NA	NA	NOTE	MMOAF not relevant for non-mutagenic

Model Output

Site Name/Run Number: Example, Run 1

Chemical Name: Xylenes **CAS No.** 1330-20-7

Range is based on the reasonable range of Qsoil/Qbuilding values, as reported in the literature.

Source to Indoor Air Attenuation Factor	Units	Symbol	Value	Range	Default	Default Range		Flag
Soil gas to indoor air attenuation coefficient	(-)	alpha	5.6E-04	8.7E-05 - 6.9E-04	5.6E-04	8.7E-05 - 6.9E-04		
Predicted Indoor Air Concentration	**Units**	**Symbol**	**Value**	**Range**	**Default**	**Default Range**		**Flag**
Indoor air concentration due to vapor intrusion	(ug/m3)	Cia	3.4E+00	5.3E-01 - 4.2E+00	3.4E+00	5.3E-01 - 4.2E+00	WARNING	
	(ppbv)		7.9E-01	1.2E-01 - 9.6E-01	7.9E-01	1.2E-01 - 9.6E-01		
Predicted Vapor Conc. Beneath Foundation	**Units**	**Symbol**	**Value**	**Range**	**Default**	**Default Range**		**Flag**
Subslab vapor concentration	(ug/m3)	Css	1.1E+03	8.4E+01 - 5.3E+03	1.1E+03	5.3E+03 - 4.2E+04		
	(ppbv)		2.6E+02	1.9E+01 - 1.2E+03	2.6E+02	1.2E+03 - 9.6E+03		
Diffusive Transport Upward Through Vadose Zone	**Units**	**Symbol**	**Value**	**Range**	**Default**	**Default Range**		**Flag**
Effective diffusion coefficient through Stratum A	(cm2/sec)	DeffA	3.6E-03	-	3.6E-03	-		
Effective diffusion coefficient through Stratum B	(cm2/sec)	DeffB		-		-		
Effective diffusion coefficient through Stratum C	(cm2/sec)	DeffC		-		-		
				-		-		
Effective diffusion coefficient through unsaturated zone	(cm2/sec)	DeffT	3.6E-03	-	3.6E-03	-		
Critical Parameters		**Symbol**	**Value**	**Range**	**Default**	**Default Range**		**Flag**
α for diffusive transport from source to building with dirt floor foundation	(-)	A_Param	7.0E-04	-	7.0E-04			
Pe (Peclet Number) for transport through the foundation (advection / diffusion)	(-)	B_Param	2.5E+02	8.3E+00 - 4.2E+03	2.5E+02	8.3E+00 - 4.2E+03		
α for convective transport from subslab to building	(-)	C_Param	3.0E-03	1.0E-04 - 5.0E-02	3.0E-03	1.0E-04 - 5.0E-02		

Interpretation

Advection is the dominant mechanism across the foundation.
Diffusion through soil and advection through foundation both control intrusio

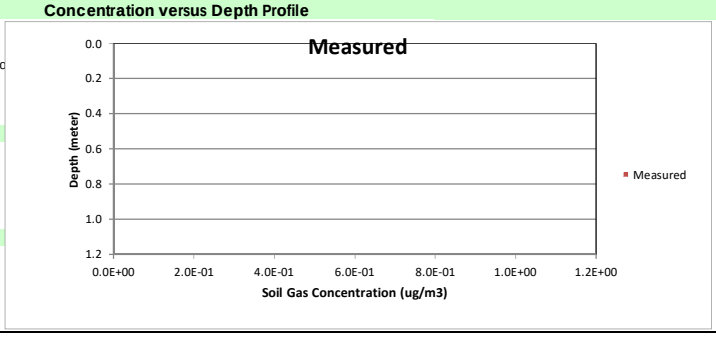
Critical Parameters

Hb, Ls, DeffT, ach, Qsoil_Qb

Non-Critical Parameters

Lf, DeffA, eta

Concentration versus Depth Profile



Model Output **Site Name/Run Number:** Example, Run 1

Chemical Name: Xylenes CAS No. 1330-20-7

Risk Calculations	Units	Symbol	Value	Range	Default	Range	Flag
Risk-Based Target Screening Levels	**Scenario: Residential**						
Target risk for carcinogens	(-)	Target_CR	1E-06	-	1E-06	-	
Target hazard quotient for noncarcinogens	(-)	Target_HQ	1	-	1	-	
Target indoor air concentration	**(ug/m3)**	**Target_IA**	**1.04E+02**	-	**1.04E+02**	-	Target indoor air concentration based o concentration)
	(ppbv)		**2.40E+01**	-	**2.40E+01**	-	
Target soil gas concentration	**(ug/m3)**	**Target_SV**	**1.85E+05**	**1.5E+05 - 1.2E+06**	**1.85E+05**	**1.5E+05 - 1.2E+06**	
Incremental Risk Estimates							
Incremental cancer risk from vapor intrusion	**(-)**	**Cancer_Risk**	**No IUR**	**-**	**No IUR**	**No IUR - No IUR**	
Hazard quotient from vapor intrusion	**(-)**	**HQ**	**3.30E-02**	**5.1E-03 - 4.0E-02**	**3.30E-02**	**5.1E-03 - 4.0E-02**	

APPENDIX C

NorCal Geophysical Survey

GEOPHYSICAL INVESTIGATION REPORT

Engeo Brentwood MAG Survey
Brentwood, California

October 30, 2020
Terracon Project No. NS205129
ENGEO Project No. 7102.000.001



Prepared for:

ENGEO
Expect Excellence
Oakland, California

Prepared by:

NORCAL GEOPHYSICAL CONSULTANTS INC.
A Terracon COMPANY
Cotati, California

October 30, 2020

EXECUTIVE SUMMARY:

Engeo Incorporated
630 San Pablo Avenue
Suite 200
Oakland, CA 94612

Attn: Brooke Spruit
Telephone: (925) 395-2538
Email: bspruit@engeo.com

Re: Geophysical Investigation Report
Engeo Brentwood MAG Survey
Oil Well Search
Sand Creek Road & Hwy 4
Contra Costa County, Brentwood, California
GPS – Latitude: 37.943529°, Longitude: -121.745058°
Terracon Project No. NS205129

Dear Ms. Spruit,

NORCAL Geophysical Consultants, Inc. (NORCAL), a Terracon Company is pleased to submit the attached Geophysical Investigation Report for the above-referenced site.

This report presents the findings of a due-diligence geophysical investigation performed by NORCAL for Engeo Incorporated (Engeo) at the subject site located at Sand Creek Road & Hwy 4 in Contra Costa County, California. The investigation was authorized under Master Subcontract Agreement, Reference No. PNS205129, dated October 08, 2020. The geophysical field work was conducted on October 09, 2020 by NORCAL Professional Geophysicist David J. Bissiri (PGp No. 1009) and Staff Geophysicist J. Sage Wagner. The purpose of the investigation is to delineate the approximate locations of two suspected abandoned oil wells.

Two Magnetic (MAG) anomalies were identified in the survey. These features are considered approximate target locations of the suspected abandoned oil wells for additional follow-up exploratory environmental sampling by others. The approximate locations for suspected abandoned oil wells have the greatest resolution along the east-to-west axes, as opposed to the north-to-south axes, based on the inherent nature of the magnetic field caused by induced dipoles (abandoned oil wells).

NORCAL GEOPHYSICAL CONSULTANTS INC.
A Terracon COMPANY

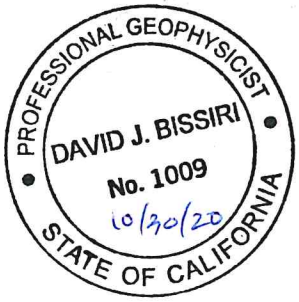
We appreciate the opportunity to provide our services to Engeo for this most interesting project. If you have any questions or require additional geophysical services, please contact either of the undersigned at (707) 796-7170.

Respectfully,

NORCAL Geophysical Consultants, Inc

Prepared by:	Reviewed by:	Approved by:
J. Sage Wagner III	David J. Bissiri	William E. Black
Staff Geophysicist	CA Professional Geophysicist, PGp 1009	CA Professional Geophysicist, PGp 843

cc: Ms. Brooke Spruit



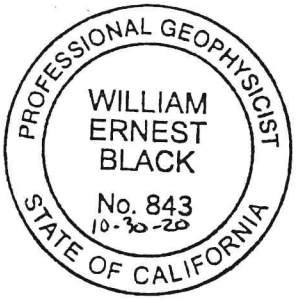


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Appendix A: Report Plates

Plate 1 – Geophysical Survey Map
Plate 2 – Residual Total Field Magnetic Intensity Contour Map - Suspected Oil Well No. 3-10
Plate 3 – Residual Total Field Magnetic Intensity Contour Map - Suspected Oil Well No. 36-10

Appendix B: Geophysical Methods

Magnetometer (MAG) Survey

Appendix C: Standard of Care, Limitations and Reliance Policies

Standard of Care
Limitations
Reliance Policies

1.0 INTRODUCTION

1.1 Project Description

The following description of the project and the project site is derived from background information provided by the client, a review of publicly available geologic and topographic maps and our observations made during the field work.

Item	Description
Site information	The area of investigation, referred to herein as the Engeo Brentwood MAG Survey area, is a rural parcel located at the west terminus of Sand Creek Road, 800-ft west of the Hwy 4 overpass, in Brentwood, Contra Costa County, California. The survey area is illustrated by the Vicinity Map and Geophysical Survey map included on **Plate 1 – Geophysical Survey Map.** The geographic coordinates of the Sand Creek Road terminus are: 37.943529°, -121.745058°.
Existing improvements	Earthworks (site grading) was observed at the site at the time of the October 09, 2020 survey.
Current ground cover	The survey area ground surface was composed of loose soils and some temporary access paths. The site had variable topography but was generally flat and open in the two survey areas. The limits of each survey area are defined by the red dashed line shown on **Plate 1 – Geophysical Survey Map**. At the time of the survey the ground surface was dry, and the weather was fair.
Existing topography	Based on the topographic information derived from Google Earth, the ground surface elevation ranges from about 138-ft to 224-ft above mean sea level (MSL) across the entirety of the site.
Site geology	Available geologic maps indicate that the area is underlain by Pleistocene-Holocene sedimentary formations and/or Quaternary alluvium (California Geological Survey, 2015).

1.2 Objectives and Scope of Work

The purpose of the geophysical investigation is to use a cesium vapor magnetometer (MAG) to systematically search accessible, designated portions of the site for magnetic targets which may represent abandoned oil wells, buried debris or other buried objects. The suspected locations of the two abandoned oil wells, designated as 3-10 and 36-10, were identified at the site by ENGEO and marked with three field stakes prior to our arrival. Based on historical documentation the suspected location for Well 3-10 was determined to be at one of two locations (stake 1 or stake 2). The historical documentation indicated only one probable location for Well 36-10 (stake 3).

The three staked locations were to be confirmed or disconfirmed for anomalous magnetic targets. Magnetic anomalies identified by the MAG survey are considered as approximate locations of the suspected abandoned oil wells for the purpose of any follow-up exploratory investigations conducted by others.

2.0 GEOPHYSICAL INVESTIGATION

Total Field Magnetic Intensity (TFM) data were acquired MAG survey. The geophysical investigation was conducted on October 09, 2020. The geophysical results, and our interpretation of those results, are discussed in Section 3.0 and are summarized in **Appendix A – Report Plates**. Detailed descriptions of the geophysical methodology, our data acquisition and analysis procedures, the criteria upon which our interpretation was based, and the unique limitations of each method are provided in **Appendix B – Geophysical Methods**.

3.0 RESULTS AND INTERPRETATIONS

The dimensions of the survey grid for was 200 feet (ft.) by 330 ft. for Well 3-10 and 200 ft. by 200 ft. for Well 36-10. Both are depicted on Plate 1 by the red dashed lines. The three ENGEO field stakes and two suspected well locations are displayed on **Plate 1 – Geophysical Survey Map**.

The results of the MAG surveys are illustrated by the TFM contour maps shown **Plate 2 – Residual Total Field Magnetic Intensity Contour Map - Suspected Oil Well No. 3-10** and **Plate 3 – Residual Total Field Magnetic Intensity Contour Map - Suspected Oil Well No. 36-10**. The dimensions of the TFM contour maps are indicated by their vertical (Northing) and horizontal (Easting) axes. The residual TFM contours are color coded according to their intensity according to the color bar shown on the right side of each map. In additions, the residual intensity values are annotated on the contours.

3.1 Magnetic Anomalies (Plates 2 & 3)

The residual TFM contours show little variation throughout much of the survey areas, except in the vicinity of ENGEO field stakes No. 2 and No. 3. In these areas, there are distinct MAG anomalies formed by roughly circular assemblages of closely spaced, high intensity (red) contours. In addition, there are zones of negative (purple) residual TFM values to the north of each anomaly. It is our interpretation that these strong magnetic variations are due to large magnetic vertical dipoles consistent with steel-cased wells. The bi-polar nature of the anomalies (both positive and negative values) is related to the fact that the earth's magnetic field is tilted and dipping southward at these latitudes. However, it is our interpretation that the abandoned oil well locations coincide with the point of highest intensity residual TFM, as depicted by the yellow circle with cross-hairs.

Other, smaller contour closures are also evident on the contour maps. We interpret these variations as minor amounts of suspected iron debris. One of these locations is coincident with stake No. 1 but we believe the juxtaposition to be entirely coincidental.

It is notable that the residual TFM magnitudes observed on the contour map for Well 3-10 (Plate 2) are lower than those observed for Well 36-10 (Plate 3). It is our interpretation that this is because the top of casing (TOC) for suspected Oil Well No. 36-10 may be shallower than the TOC for suspected Oil Well No. 3-10.

A summary of the GPS coordinates of the suspected oil wells and ENGEO field stakes measured during the MAG survey are below.

2020 MAG Survey	GPS – Latitude, Longitude
Estimated true position of suspected Oil Well No. 3-10	37.944956062, -121.746210742
Estimated true position of suspected Oil Well No. 36-10	37.941232373, -121.746206729
ENGEO field stake No. 1	37.945219836, -121.746220182
ENGEO field stake No. 2	37.944834012, -121.746203989
ENGEO field stake No. 3	37.941218195, -121.746209786

The abandoned oil well locations listed above are based on our best interpretation of the measured MAG data. In the event of any further exploration by others, it should be noted that these locations are approximate. The approximate locations for suspected abandoned oil wells have the greatest resolution along the east-to-west axes, as opposed to the north-to-south axes, based on the inherent nature of the magnetic intensity from induced dipoles (abandoned oil wells).

4.0 SUMMARY OF FINDINGS

The findings of the 2020 geophysical investigation are as follows:

- The suspected location of Well 3-10 is interpreted to be approximately 42 feet due north of ENGEO field stake No. 2
- The suspected location for Well 36-10 is interpreted to be only a foot or two north of stake No. 3.
- The estimated locations for suspected abandoned oil wells have the greatest resolution along the east-to-west axes, as opposed the to the north-to-south axes, based on the inherent nature of the magnetic field arising from induced dipoles (abandoned oil wells). As a result, some location error is to be expected.
- Other smaller magnitude variations likely represent suspected iron debris located in the near surface.

APPENDIX A – Report Plates

Plate 1 – Geophysical Survey Map
Plate 2 – Residual Total Field Magnetic Intensity Contour Map - Suspected Oil Well No. 3-10
Plate 3 – Residual Total Field Magnetic Intensity Contour Map - Suspected Oil Well No. 36-10

OIL WELL NO. 3-10

1

2

OIL WELL NO. 36-10

3

SAND CREEK ROAD

4

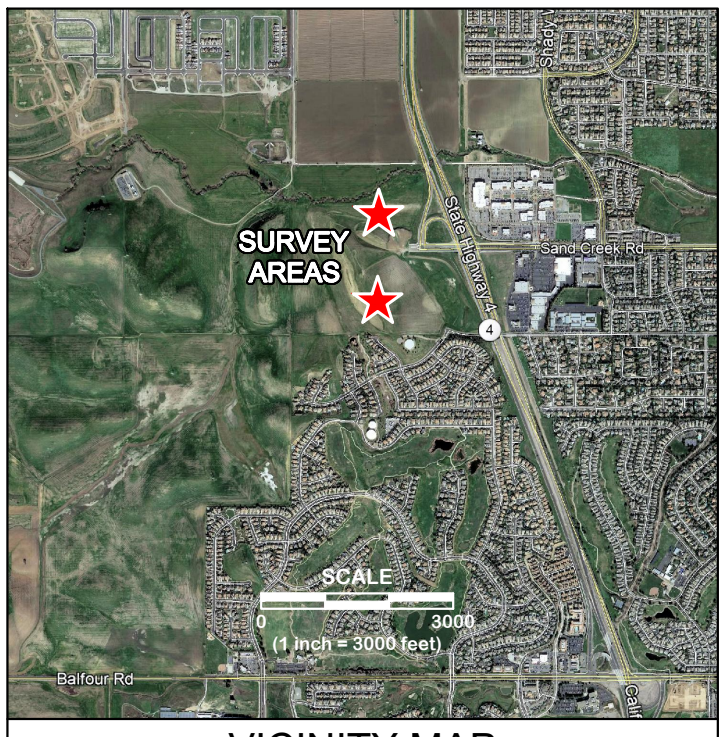
LA SATA DRIVE

ST REGIS AVE

N

LEGEND

	LIMITS OF GEOPHYSICAL SURVEY
	SUSPECTED WELL LOCATION
	FIELD STAKE



VICINITY MAP

SCALE

0 100 200 400

(1 inch = 200 feet)

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No. 1009
STATE OF CALIFORNIA

GEOPHYSICAL SURVEY MAP
WEST TERMINUS SAND CREEK ROAD

LOCATION: BRENTWOOD, CALIFORNIA

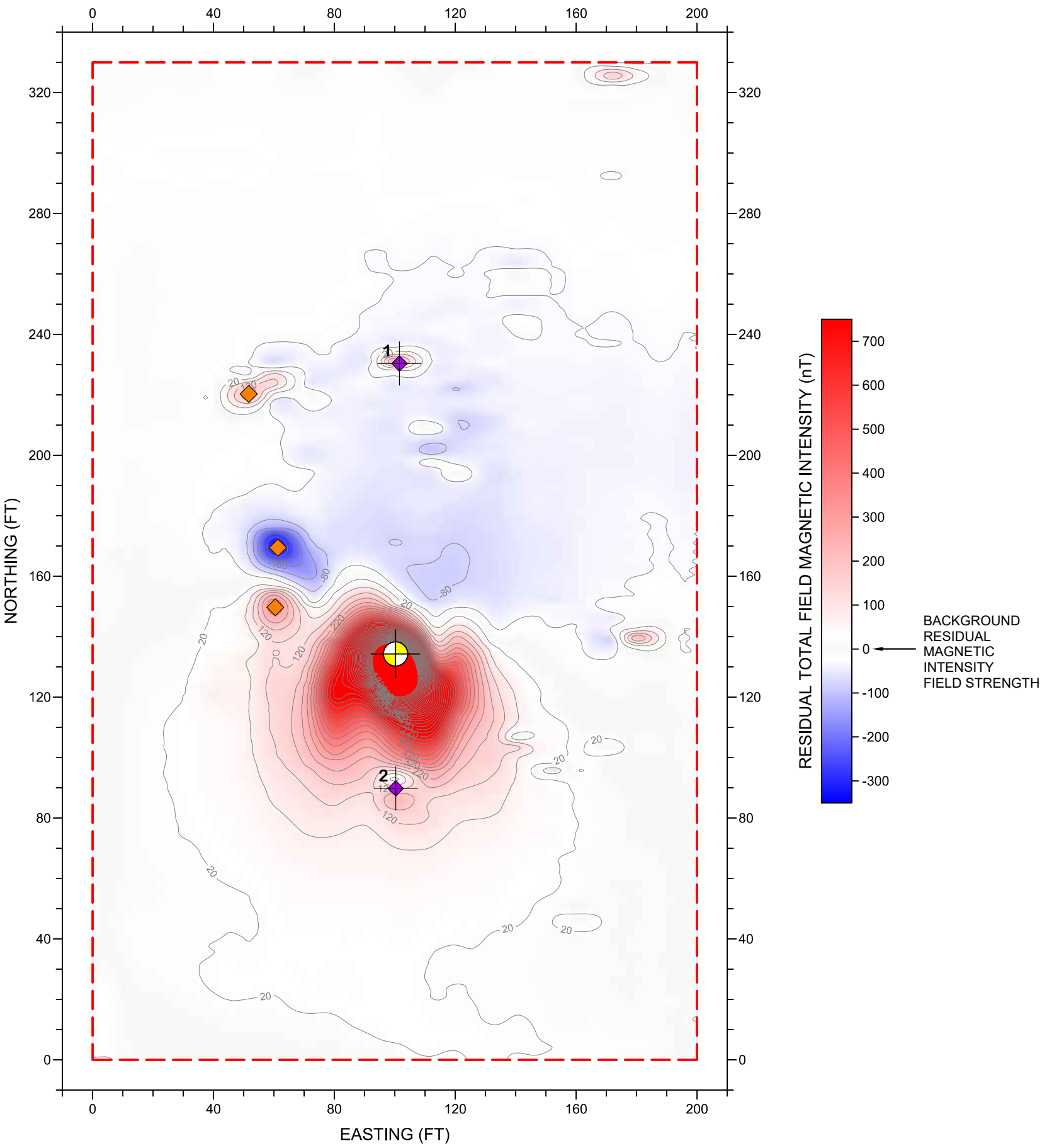
CLIENT: ENGEO

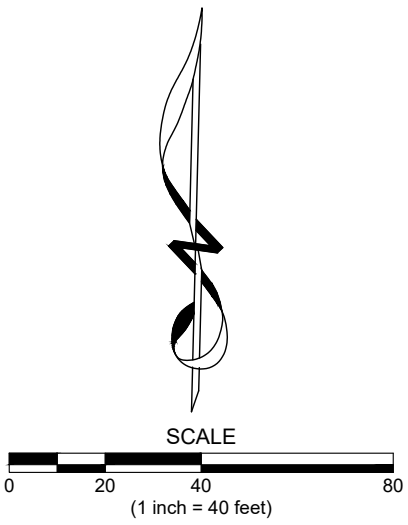
JOB #. NS205129 | DATE: OCTOBER 2020

DRAWN BY: G.RANDALL | APPROVED BY: DJB

David J. Bissiri 10/29/2020

PLATE 1





LEGEND

	LIMITS OF GEOPHYSICAL SURVEY
	RESIDUAL TOTAL FIELD MAGNETIC INTENSITY (CONTOUR INTERVAL = 50 nT)
	SUSPECTED WELL LOCATION
	ENGEO FIELD STAKE
	SUSPECTED IRON DEBRIS

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RESIDUAL TOTAL FIELD MAGNETIC INTENSITY CONTOUR MAP - SUSPECTED OIL WELL 3-10 WEST TERMINUS SAND CREEK ROAD

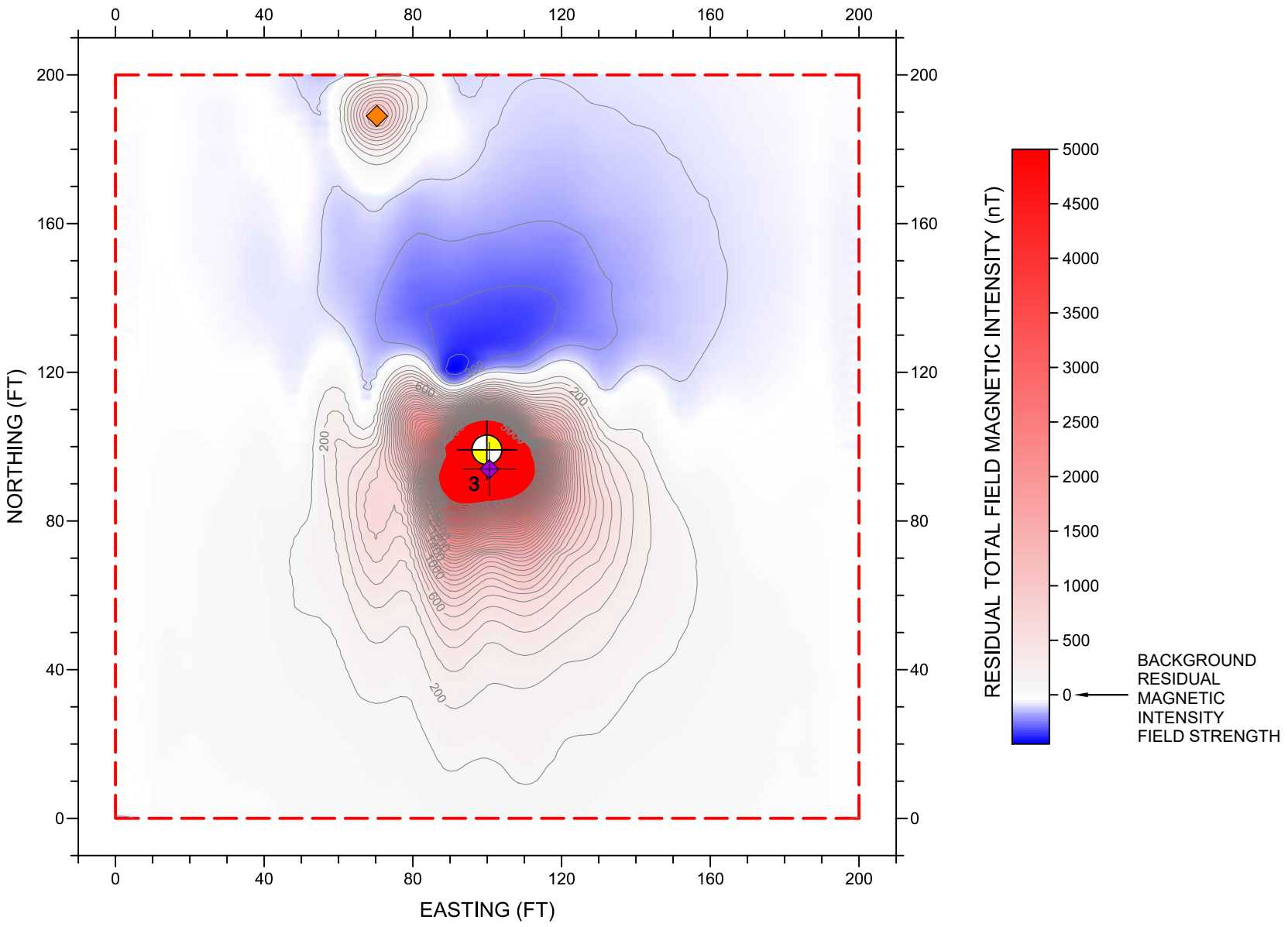
LOCATION: BRENTWOOD, CALIFORNIA

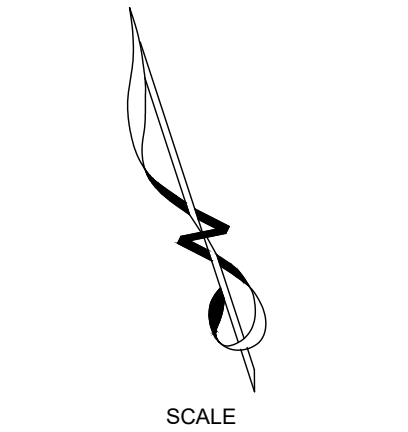
CLIENT: ENGEO

JOB #. NS205129 | DATE: OCTOBER 2020 | PLATE 2

DRAWN BY: G.RANDALL | APPROVED BY: DJB

David J. Bissiri 10/29/2020





LEGEND

	LIMITS OF GEOPHYSICAL SURVEY
	RESIDUAL TOTAL FIELD MAGNETIC INTENSITY (CONTOUR INTERVAL = 100 nT)
	SUSPECTED WELL LOCATION
	ENGEO FIELD STAKE
	SUSPECTED IRON DEBRIS

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RESIDUAL TOTAL FIELD MAGNETIC INTENSITY CONTOUR MAP - SUSPECTED OIL WELL 36-10 WEST TERMINUS SAND CREEK ROAD

LOCATION: BRENTWOOD, CALIFORNIA

CLIENT: ENGEO

JOB #. NS205129 | DATE: OCTOBER 2020

DRAWN BY: G.RANDALL | APPROVED BY: DJB

David J. Bissiri 10/29/2020

PLATE 3

APPENDIX B – Geophysical Methods

Magnetometer (MAG) Survey

1.0 MAGNETOMETER (MAG) SURVEY

1.1 METHODOLOGY

A magnetometer measures variations in the earth's magnetic field. These variations can be caused by geologic features or by buried ferrous objects such as underground storage tanks, drums, utilities, etc. Most modern magnetometers have two sensors that simultaneously measure the total intensity of the earth's magnetic field, often referred to as "Total Field Mag or (TFM). Depending on the orientation of the sensors, these data can then be used to determine the vertical or horizontal gradient of the earth's magnetic field. Alternatively, the dual sensors can be used to measure the TFM at two locations simultaneously.

1.2 DATA ACQUISITION



NORCAL conducted the MAG survey using a Geometrics ***G858-G*** magnetic gradiometer. This instrument is based on cesium vapor optical pump technology and can measure the earth's magnetic field at a rate of ten times per second. The ***G858-G*** consists of a control console and two optical pump sensors mounted on an aluminum staff. The console features a built-in memory that stores the readings from both sensors (TFM), the computed vertical magnetic gradient (VMG) between the two sensors, and the survey grid information. The photo at left shows the VMG in use.

At both survey locations, we collected TFM data at approximate 2.5- to 3.0-ft intervals along east-west trending lines spaced 10-ft apart over a 170 X 270-foot survey grid. This resulted in a total of 1,954 VMG Stations. The limits of the VMG survey are shown on Plates 1 and 2.

1.3 DATA ANALYSIS

Upon completion of the MAG survey we downloaded the magnetic data using the computer program ***MagMap2000*** by Geometrics of San Jose, California. We also used this software to edit and filter the data and format them for graphics processing. We then used the computer program ***Surfer 16.0***, by Golden Software, to contour and plot the TFM data from the top sensor, as shown on Plate 2. We decided to display TFM contours rather than VMG contours because the former represent a greater depth of investigation. We chose the TFM response of the top sensor because it is typically less affected by interference from ground clutter than the bottom sensor.

The TFM data collected at each site were downloaded to a computer using the computer program ***Magmap 2000*** by Geometrics, Inc. of San Jose, CA. This program was used to despike the data and convert them to x,y,z format for subsequent contouring. The formatted data were then input to the program ***Surfer 16.0*** by Golden Software of Golden, CO. This program computed the residual component of TFM data and created a color contoured map illustrating variations in residual values throughout each survey area. The resulting maps are shown on Plates 2 and 3.

Note that the residual component of the TFM is what remains after the site-wide average is removed. This is a means of eliminating regional trends and focusing on local magnetic variations. Furthermore, it reduces the size of the values from tens of thousands of nano-Teslas (earth's total field) to tens or hundreds of nT (local variations) that are easier to deal with.

1.4 LIMITATIONS

Typically, only buried objects containing ferrous metal can be detected using a magnetometer. The detection capabilities of a magnetometer are directly proportional to the volume of ferrous metal the object contains and inversely proportional to its depth of burial. Consequently, the deeper an object is buried, the larger it must be in order to be detected. Even buried objects with the proper composition that lie within the depth of investigation of the magnetometer may not be detected if their signatures are masked by overlying metal objects or surface structures.

APPENDIX C – Terracon Standard of Care, Limitation, and Reliance

Standard of Care

The scope of NORCAL's services for this project consisted of using geophysical methods to characterize the shallow subsurface. The accuracy of our findings is subject to specific site conditions and limitations inherent to the techniques used. We performed our services in a manner consistent with the standard of care ordinarily exercised by members of the profession currently employing similar methods. No warranty, with respect to the performance of services or products delivered under this agreement, expressed or implied, is made by NORCAL.

Additional Scope Limitations

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, non-detectable or not present during these services, and we cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this confirmation sampling. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

Reliance

This report has been prepared for the exclusive use of Engeo; and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Engeo and NORCAL. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the Master Subconsultant Agreement, Reference No. PNS205129, dated October 8, 2020, between NORCAL and Engeo. The limitation of liability defined in the Terms and Conditions is the aggregate limit of NORCAL's liability to the client and all relying parties unless otherwise agreed in writing.

Appendix H

Environmental Noise Assessment

Bridle Gate Residential

Brentwood, California

January 26, 2023

Project #211206

Prepared for:

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INTRODUCTION

The Bridle Gate Residential project consists of the development of a 286-lot single-family subdivision on a vacant parcel.[1] The project is located south of Sand Creek Road and west of Highway 4 in the City of Brentwood, California.

Figure 1 shows the project site plan. **Figure 2** shows an aerial photo of the project site.

ENVIRONMENTAL SETTING

BACKGROUND INFORMATION ON NOISE

Fundamentals of Acoustics

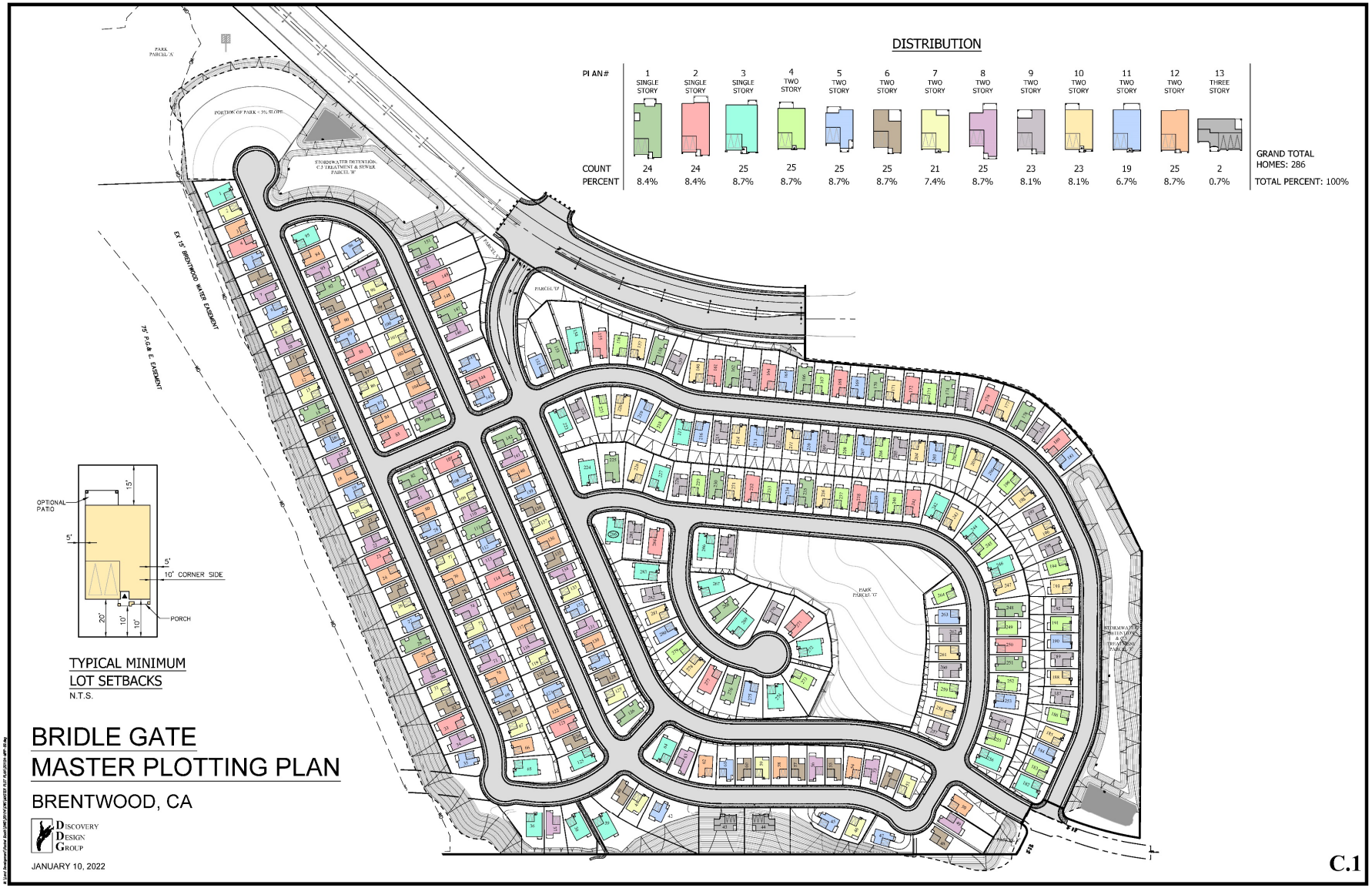
Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment.

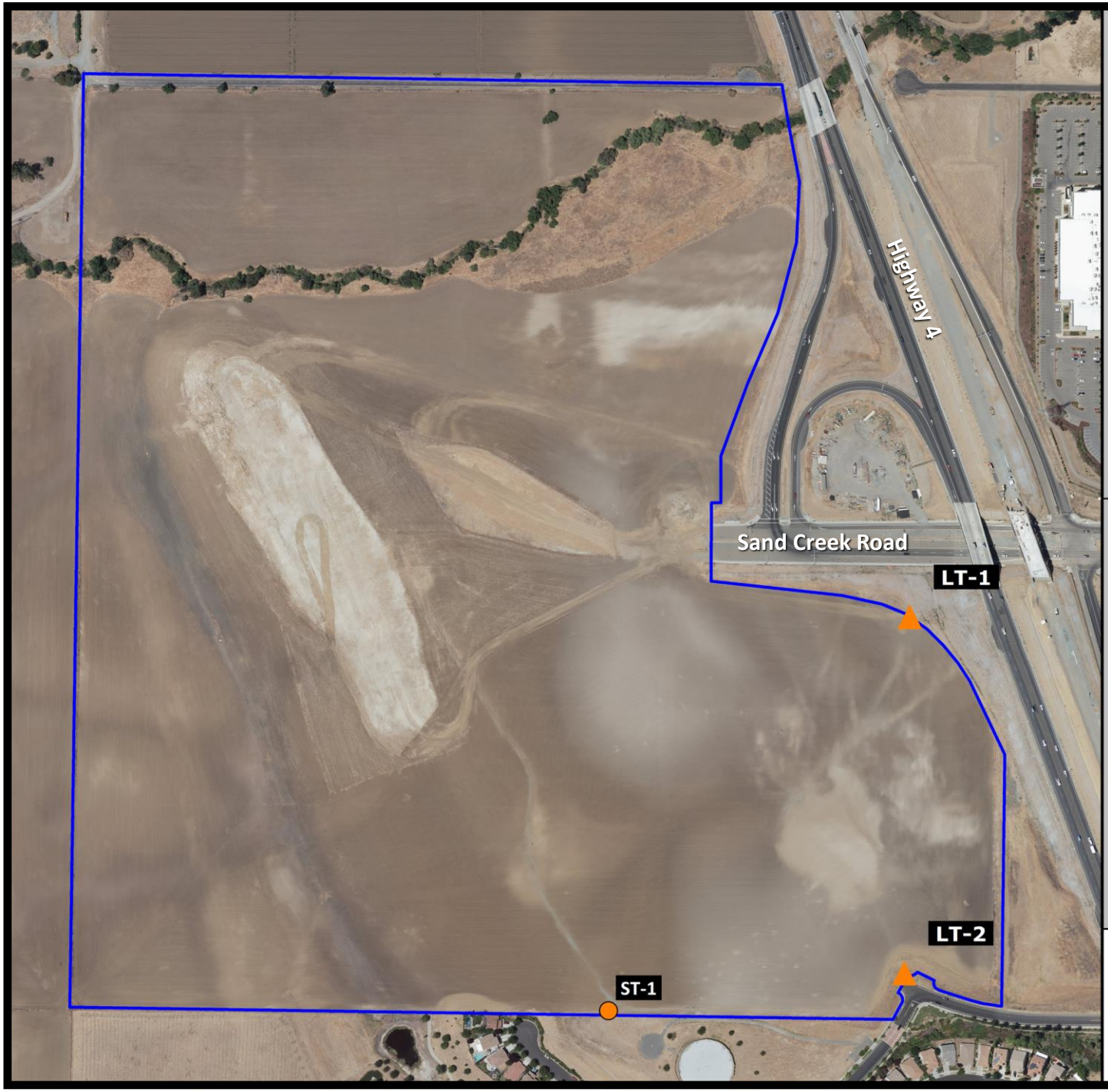
[1] The Project was studied at a density of 292 units for the sake of being conservative.



Bridle Gate Residential
City of Brentwood, California

Figure 1
Project Site Plan

SAXELBY ACOUSTICS
Acoustics · Noise · Vibration



Bridle Gate Residential

City of Brentwood, California

Figure 2

Noise Measurement Sites

Legend

- Project Site
- Noise Measurement - Short Term
- Noise Measurement Site - Long Term

0 ft 1000 ft 2000 ft 3000 ft 4000 ft 5000 ft

Projection: State Plane (California Zone 3) / NAD83 / meters
Rev. Date: 02/03/2022

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The decibel scale is logarithmic, not linear. In other words, two sound levels 10-dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10-dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A-weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (DNL or L_{dn}) is based upon the average noise level over a 24-hour day, with a +10-decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Table 1 lists several examples of the noise levels associated with common situations. **Appendix A** provides a summary of acoustical terms used in this report.

TABLE 1: TYPICAL NOISE LEVELS

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft.)	--100--	
Gas Lawn Mower at 1 m (3 ft.)	--90--	
Diesel Truck at 15 m (50 ft.), at 80 km/hr. (50 mph)	--80--	Food Blender at 1 m (3 ft.) Garbage Disposal at 1 m (3 ft.)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft.)	--70--	Vacuum Cleaner at 3 m (10 ft.)
Commercial Area Heavy Traffic at 90 m (300 ft.)	--60--	Normal Speech at 1 m (3 ft.)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

Source: Caltrans, Technical Noise Supplement, Traffic Noise Analysis Protocol. September, 2013.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1-dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;
- A change in level of at least 5-dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise–including stationary mobile sources such as idling vehicles–attenuate (lessen) at a rate of approximately 6-dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING AND FUTURE NOISE AND VIBRATION ENVIRONMENTS

EXISTING NOISE RECEPTORS

Some land uses are considered more sensitive to noise than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Sensitive noise receptors may also include threatened or endangered noise sensitive biological species, although many jurisdictions have not adopted noise standards for wildlife areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise.

Sensitivity is a function of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities involved. In the vicinity of the project site, sensitive land uses include existing single-family residential uses located south of the project site.

EXISTING GENERAL AMBIENT NOISE LEVELS

The existing noise environment in the project area is primarily defined by traffic on Highway 4 directly east of the project site.

To quantify the existing ambient noise environment in the project vicinity, Saxelby Acoustics conducted continuous (24-hr.) noise level measurements at two locations on the project site and short-term noise level measurements at one location. Noise measurement locations are shown on **Figure 2**. A summary of the noise level measurement survey results is provided in **Table 2**. **Appendix B** contains the complete results of the noise monitoring.

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value, denoted L_{max}, represents the highest noise level measured. The average value, denoted L_{eq}, represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period. The median value, denoted L_{50}, represents the sound level exceeded 50 percent of the time during the monitoring period.

Larson Davis Laboratories (LDL) model 820 and 831 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with a B&K Model 4230 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

TABLE 2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

Site	Date	L_{dn}	Daytime L_{eq}	Daytime L_{50}	Daytime L_{max}	Nighttime L_{eq}	Nighttime L_{50}	Nighttime L_{max}
LT-1	1/6/2022	70	68	67	81	62	59	74
LT-2	1/6/2022	62	59	57	76	56	50	70
ST-1	1/5/2022	N/A	55	55	66	N/A	N/A	N/A

Notes:

- *All values shown in dBA*
- *Daytime hours: 7:00 a.m. to 10:00 p.m.*
- *Nighttime Hours: 10:00 p.m. to 7:00 a.m.*
- *Source: Saxelby Acoustics 2022*

FUTURE TRAFFIC NOISE ENVIRONMENT AT OFF-SITE RECEPTORS

OFF-SITE TRAFFIC NOISE IMPACT ASSESSMENT METHODOLOGY

To assess noise impacts due to project-related traffic increases on the local roadway network, traffic noise levels are predicted at sensitive receptors for Existing and Existing Plus Project conditions.

Noise levels due to traffic are calculated using the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108). The model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site.

The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. To predict traffic noise levels in terms of L_{dn}, it is necessary to adjust the input volume to account for the day/night distribution of traffic.

Project trip generation volumes were provided by the project traffic engineer (Kimley Horn 2020), truck usage and vehicle speeds on the local area roadways were estimated from field observations. The predicted increases in traffic noise levels on the local roadway network for Existing and Cumulative conditions which would result from the project are provided in terms of L_{dn}. It should be noted that the current project traffic is predicted to be less than that assumed under the 2020 traffic noise study. Therefore, this analysis of off-site traffic noise increases is considered conservative.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. In some locations sensitive receptors may not receive full shielding from noise barriers or may be located at distances which vary from the assumed calculation distance.

Tables 3 and 4 summarize the modeled traffic noise levels at the nearest sensitive receptors along each roadway segment in the Project area. **Appendix C** provides the complete inputs and results of the FHWA traffic noise modeling.

TABLE 3: EXISTING TRAFFIC NOISE LEVELS AND PROJECT-RELATED TRAFFIC NOISE LEVEL INCREASES

Roadway	Segment	Predicted Exterior Noise Level (dBA L_{dn}) at Closest Sensitive Receptors		
		Existing No Project	Existing + Project	Change
Heidorn Ranch Rd.	South of Lone Tree Way	58.1	59.0	0.9
Lone Tree Way	East of Heidorn Ranch Rd.	67.9	68.0	0.1
Sand Creek Road	East of Shady Willow Ln.	64.2	64.5	0.3
St. Regis Ave.	South of San Jose Ave.	58.1	58.5	0.4
San Jose Ave.	East of St. Regis Ave.	56.4	56.7	0.3
San Jose Ave.	West of Portofino Dr.	55.5	55.9	0.4
San Jose Ave.	East of Portofino Dr.	55.3	55.6	0.3
Balfour Rd.	East of SR-4	63.2	63.2	0.0
W. Country Club Dr.	North of Balfour Rd.	52.8	52.9	0.1
Balfour Rd.	East of W. Country Club Dr.	58.8	59.0	0.2
Balfour Rd.	West of E. Country Club Dr.	59.0	59.1	0.1
E. Country Club Dr.	North of Balfour Rd.	49.1	49.2	0.1
Balfour Rd.	East of E. Country Club Dr.	61.4	61.5	0.1
Foothill Dr.	South of Balfour Rd.	48.8	48.8	0.0
Presidio Dr.	North of W. Country Club Dr.	55.8	55.9	0.1
W. Country Club Dr.	West of Presidio Dr.	54.0	54.1	0.1
W. Country Club Dr.	East of Presidio Dr.	46.5	46.5	0.0
E. Country Club Dr.	West of Roundhill Dr.	50.3	50.3	0.0

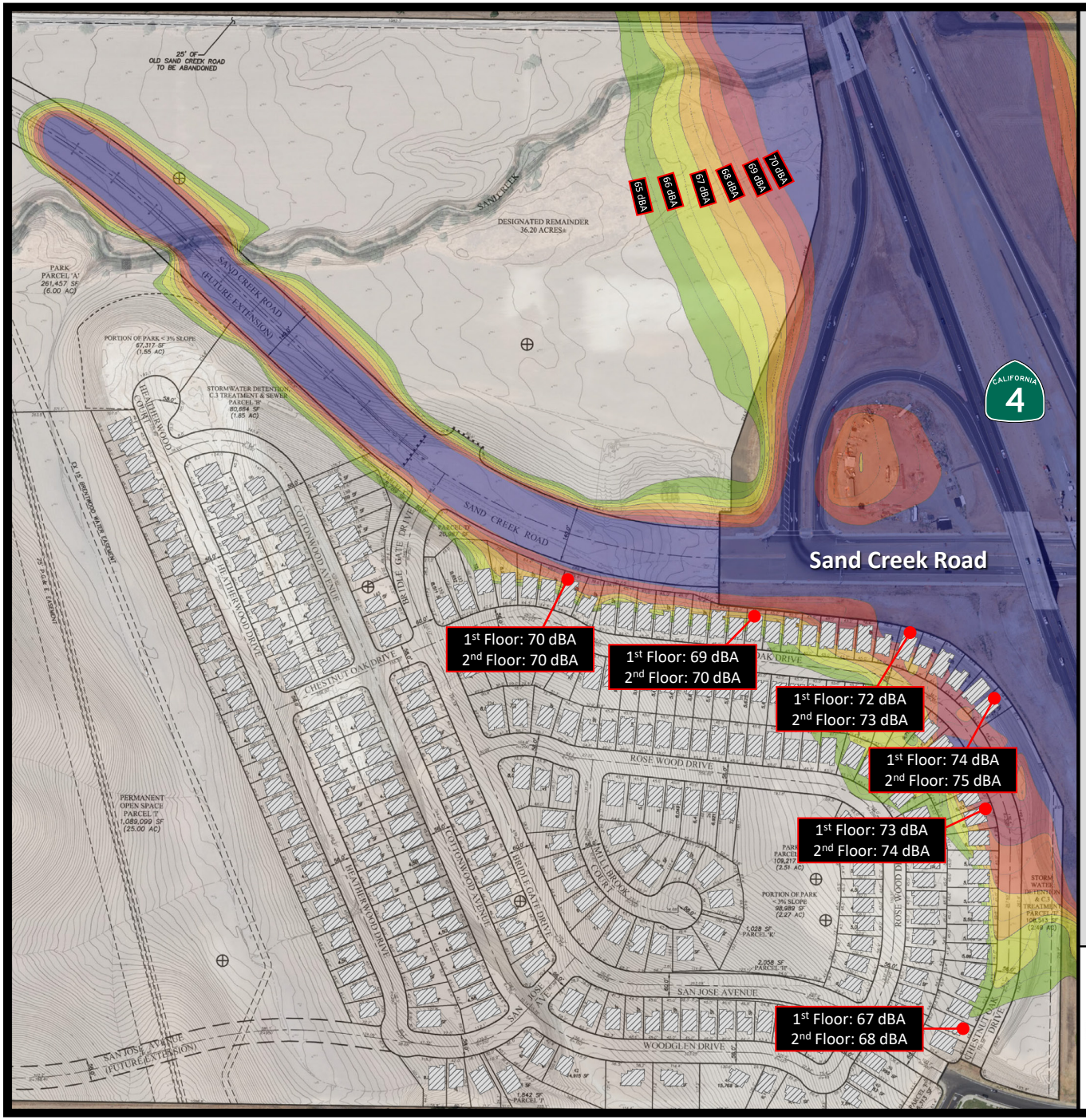
TABLE 4: CUMULATIVE TRAFFIC NOISE LEVELS AND PROJECT-RELATED TRAFFIC NOISE LEVEL INCREASES

Roadway	Segment	Predicted Exterior Noise Level (dBA L_{dn}) at Closest Sensitive Receptors		
		Existing No Project	Existing + Project	Change
Heidorn Ranch Rd.	South of Lone Tree Way	61.6	61.6	0.0
Lone Tree Way	East of Heidorn Ranch Rd.	69.8	69.9	0.1
Sand Creek Road	East of Shady Willow Ln.	65.0	65.2	0.2
St. Regis Ave.	South of San Jose Ave.	58.1	58.4	0.3
San Jose Ave.	East of St. Regis Ave.	56.4	56.7	0.3
San Jose Ave.	West of Portofino Dr.	55.7	56.1	0.4
San Jose Ave.	East of Portofino Dr.	55.5	55.8	0.3
Balfour Rd.	East of SR-4	64.7	64.7	0.0
W. Country Club Dr.	North of Balfour Rd.	56.1	56.1	0.0
Balfour Rd.	East of W. Country Club Dr.	59.2	59.4	0.2
Balfour Rd.	West of E. Country Club Dr.	59.4	59.6	0.2
E. Country Club Dr.	North of Balfour Rd.	50.4	50.5	0.1
Balfour Rd.	East of E. Country Club Dr.	62.2	62.3	0.1
Foothill Dr.	South of Balfour Rd.	49.5	49.5	0.0
Presidio Dr.	North of W. Country Club Dr.	55.9	56.0	0.1
W. Country Club Dr.	West of Presidio Dr.	54.2	54.3	0.1
W. Country Club Dr.	East of Presidio Dr.	47.1	47.1	0.0
E. Country Club Dr.	West of Roundhill Dr.	51.0	51.0	0.0

Based upon the data in **Tables 3 and 4**, the proposed project is predicted to result in an increase in a maximum traffic noise level increase of 0.9 dBA.

EVALUATION OF TRANSPORTATION NOISE ON PROJECT SITE

Saxelby Acoustics used the SoundPLAN noise model to calculate traffic noise levels at the proposed single-family uses due to traffic on Highway 4 and the local roadway network. Traffic noise levels include a +2 dBA adjustment for future conditions. The results of this analysis are shown graphically on **Figure 3**. **Appendix D** contains the complete inputs for the SoundPLAN analysis.



Bridle Gate Residential

City of Brentwood, California

Figure 3

Future (2043) Transportation Noise Contours (dBA L_{dn}) – No Sound Walls

Noise Level, dB(A)	
65 <	<= 66
66 <	<= 67
67 <	<= 68
68 <	<= 69
69 <	<= 70
70 <	

Legend

Proposed Building

Scale 1:350

0 50 100 200 300 400 feet

SAXELBY ACOUSTICS

Acoustics · Noise · Vibration

CONSTRUCTION NOISE ENVIRONMENT

During the construction of the proposed project, including roads, water and sewer lines, and related infrastructure, noise from construction activities would temporarily add to the noise environment in the project vicinity. As shown in **Table 5**, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet.

TABLE 5: CONSTRUCTION EQUIPMENT NOISE

Type of Equipment	Maximum Level, dBA at 50 feet
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

Source: *Roadway Construction Noise Model User's Guide*. Federal Highway Administration. FHWA-HEP-05-054. January 2006.

CONSTRUCTION VIBRATION ENVIRONMENT

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading, utilities placement, and parking lot construction occur. **Table 6** shows the typical vibration levels produced by construction equipment.

TABLE 6: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

Type of Equipment	Peak Particle Velocity at 25 feet (inches/second)	Peak Particle Velocity at 50 feet (inches/second)	Peak Particle Velocity at 100 feet (inches/second)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

Source: *Transit Noise and Vibration Impact Assessment Guidelines.* Federal Transit Administration. May 2006.

REGULATORY CONTEXT

FEDERAL

There are no federal regulations related to noise that apply to the Proposed Project.

STATE

There are no state regulations related to noise that apply to the Proposed Project.

LOCAL

City of Brentwood General Plan

Policies

Policy N 1-1: Ensure the noise compatibility of existing and future development when making land use planning decisions.

Policy N 1-2: Require development and infrastructure projects to be consistent with the Land Use Compatibility for Community Noise Environments standards indicated in Table N-1 to ensure acceptable noise levels for existing and future development.

Policy N 1-3: Require new development to mitigate excessive noise through best practices, including building location and orientation, building design features, placement of noise-generating equipment away from sensitive receptors, shielding of noise-generating equipment, placement of noise-tolerant features between noise sources and sensitive receptors, and use of noise-minimizing materials such as rubberized asphalt.

Policy N 1-7: For projects that are required by the California Environmental Quality Act (CEQA) to analyze noise impacts, the following criteria shall be used to determine the significance of those impacts:

Stationary and Non-Transportation Noise Sources

- A significant impact will occur if the project results in an exceedance of the noise level standards contained in this element, or the project will result in an increase in ambient noise levels by more than 3 dB, whichever is greater.

Transportation Noise Sources

- Where existing traffic noise levels are less than 60 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +5 dB L_{dn} increase in roadway noise levels will be considered significant; and

- Where existing traffic noise levels range between 60 and 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +3 dB L_{dn} increase in roadway noise levels will be considered significant; and

- Where existing traffic noise levels are greater than 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a + 1.5 dB L_{dn} increase in roadway noise levels will be considered significant.

Policy N 1-14: Ensure that new development does not result in indoor noise levels exceeding 45 dBA Ldn for residential uses.

Policy N 1-15: Require construction activities to comply with standard best practices (see Action N 1e).

Policy N 2-1: Recognizing that existing and future traffic noise along the State Route 4 corridor, major arterials within Brentwood, and noise from the UPRR [Union Pacific Railroad] are areas of potential land use conflict for existing and future development, reasonable use of this land will be allowed with an exterior noise exposure level not exceeding 65 dB Ldn. New development that includes noise-sensitive uses (i.e., residential) along the State Route 4 corridor, major arterials, and the UPRR should incorporate appropriate noise attenuation measures in order to maintain interior noise levels of 45 dB Ldn or less. Application of this noise standard is intended to provide for reasonable exterior noise levels while discouraging the use of excessively high and/or unattractive sound walls.

Action N 1e: *During the environmental review process, determine if proposed construction will constitute a significant impact on nearby residents and, if necessary, require mitigation measures in*

addition to the standard best practice controls. Suggested best practices for control of construction noise include:

1. Construction period shall be less than 12 months.

2. Noise-generating construction activities, including truck traffic coming to and from the construction site for any purpose, shall be limited to between the hours of 7:00 am and 6:00 pm on weekdays, and between 8:00 am and 5:00 pm on Saturdays. No construction shall occur on Sundays or City holidays.

3. All equipment driven by internal combustion engines shall be equipped with mufflers, which are in good condition and appropriate for the equipment.

4. The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists.

5. At all times during project grading and construction, stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from residences.

6. Unnecessary idling of internal combustion engines shall be prohibited.

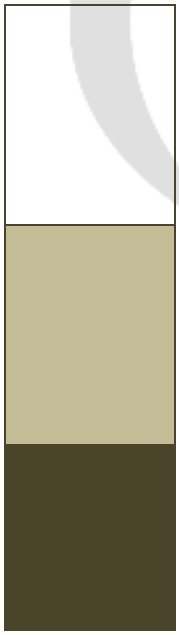
7. Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction activities, to the extent feasible.

8. The required construction-related noise mitigation plan shall also specify that haul truck deliveries are subject to the same hours specified for construction equipment.

9. Neighbors located adjacent to the construction site shall be notified of the construction schedule in writing.

10. The construction contractor shall designate a "noise disturbance coordinator" who will be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall be responsible for determining the cause of the noise complaint (e.g., starting too early, poor muffler, etc.) and instituting reasonable measures as warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.

TABLE N-1 LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENT								
Land Use Category	Exterior Noise Exposure (Ldn)							
		55	60	65	70	75	80	
Single-Family Residential								
Multi-Family Residential, Hotels, and Motels								
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds								
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches								
Office Buildings, Business Commercial, and Professional								
Industrial								



NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements

CONDITIONALLY ACCEPTABLE

Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design

UNACCEPTABLE

New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies

Based upon Table N-1 of the City of Brentwood General Plan, residential uses are considered normally acceptable in ambient noise environments up to 60 dBA L_{dn}, and conditionally acceptable in noise environments up to 75 dBA L_{dn}. However, policy N-1 limits exterior noise levels to 65 dBA L_{dn} for new residential uses adjacent to State Route 4 corridor, major arterials within Brentwood, and noise from the UPRR. The City of Brentwood also establishes an interior noise level criterion of 45 dBA L_{dn} for residential uses.

Criteria for Acceptable Vibration

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception of the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities (p.p.v.) in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. **Table 7**, which was developed by Caltrans, shows the vibration levels which would normally be required to result in damage to structures. The vibration levels are presented in terms of peak particle velocity in inches per second.

Table 7 indicates that the threshold for architectural damage to structures is 0.20 in/sec p.p.v. A threshold of 0.2 in/sec p.p.v. is considered to be a reasonable threshold for short-term construction projects.

TABLE 7: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS

Peak Particle Velocity		Human Reaction	Effect on Buildings
mm/second	in/second		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: *Transportation Related Earthborne Vibrations.* Caltrans. TAV-02-01-R9601. February 20, 2002.

IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Appendix G of the CEQA Guidelines states that a project would normally be considered to result in significant noise impacts if noise levels conflict with adopted environmental standards or plans, or if noise generated by the project would substantially increase existing noise levels at sensitive receivers on a permanent or temporary basis. Significance criteria for noise impacts are drawn from CEQA Guidelines Appendix G (Items XI [a-f]).

Would the project:

a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b. Generate excessive groundborne vibration or groundborne noise levels?

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

NOISE LEVEL INCREASE CRITERIA FOR LONG-TERM PROJECT-RELATED NOISE LEVEL INCREASES

The California Environmental Quality Act (CEQA) guidelines define a significant impact of a project if it "increases substantially the ambient noise levels for adjoining areas." Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local project criteria or ordinances, or substantially increase noise levels at noise sensitive land uses. The potential increase in traffic noise from the project is a factor in determining significance. Research into the human perception of changes in sound level indicates the following:

- A 3dB change is barely perceptible,
- A 5dB change is clearly perceptible, and
- A 10dB change is perceived as being twice or half as loud.

A limitation of using a single noise level increase value to evaluate noise impacts is that it fails to account for pre-project-noise conditions. **Table 8** is based upon recommendations made by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it is widely accepted that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the L_{dn}.

TABLE 8: SIGNIFICANCE OF CHANGES IN NOISE EXPOSURE

Ambient Noise Level Without Project, Ldn	Increase Required for Significant Impact
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

Source: Federal Interagency Committee on Noise (FICON)

Based on the **Table 8** data, an increase in the traffic noise level of 5 dB or more would be significant where the pre-project noise levels are less than 60 dB Ldn, or 3 dB or more where existing noise levels are between 60 to 65 dB Ldn. Extending this concept to higher noise levels, an increase in the traffic noise level of 1.5 dB or more may be significant where the pre-project traffic noise level exceeds 65 dB Ldn. The rationale for the **Table 8** criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause annoyance. It is noted that General Plan Policy N 1-7 formally adopts this methodology for evaluating traffic noise increases.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 1: WOULD THE PROJECT GENERATE A SUBSTANTIAL TEMPORARY OR PERMANENT INCREASE IN AMBIENT NOISE LEVELS IN THE VICINITY OF THE PROJECT IN EXCESS OF STANDARDS ESTABLISHED IN THE LOCAL GENERAL PLAN OR NOISE ORDINANCE, OR APPLICABLE STANDARDS OF OTHER AGENCIES?

Traffic Noise Increases

As discussed, the substantial increase criteria range between +1.5 dBA to +5 dBA, depending on the existing noise levels. Under the proposed project, the maximum increase in traffic noise at the nearest sensitive receptor is predicted to be 0.9 dBA as shown in **Tables 3 and 4**. Therefore, impacts resulting from increased traffic noise would be considered ***less-than-significant***.

Operational Noise Increases

The proposed project would include typical residential noise which would be compatible with the existing adjacent residential uses.

Construction Noise

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. As indicated in **Table 5**, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dBA L_{max} at a distance of 50 feet. The great majority of the building construction would occur at distances of 50 feet or greater from the nearest residences, and at distances where construction noise would not be perceptible. Construction noise associated with streets would be similar to noise that would be associated with public works projects, such as a roadway widening or paving projects.

Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Noise would also be generated during the construction phase by increased truck traffic on area roadways. A project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from the construction site. This noise increase would be of short duration and would likely occur primarily during daytime hours.

Construction activities are conditionally exempt from the Noise Ordinance during certain hours. Construction activities are exempt from the noise standard from 8 AM to 5 PM Monday through Friday, and from 9 AM to 4 PM on Saturdays. No construction shall occur on Sundays or City holidays.

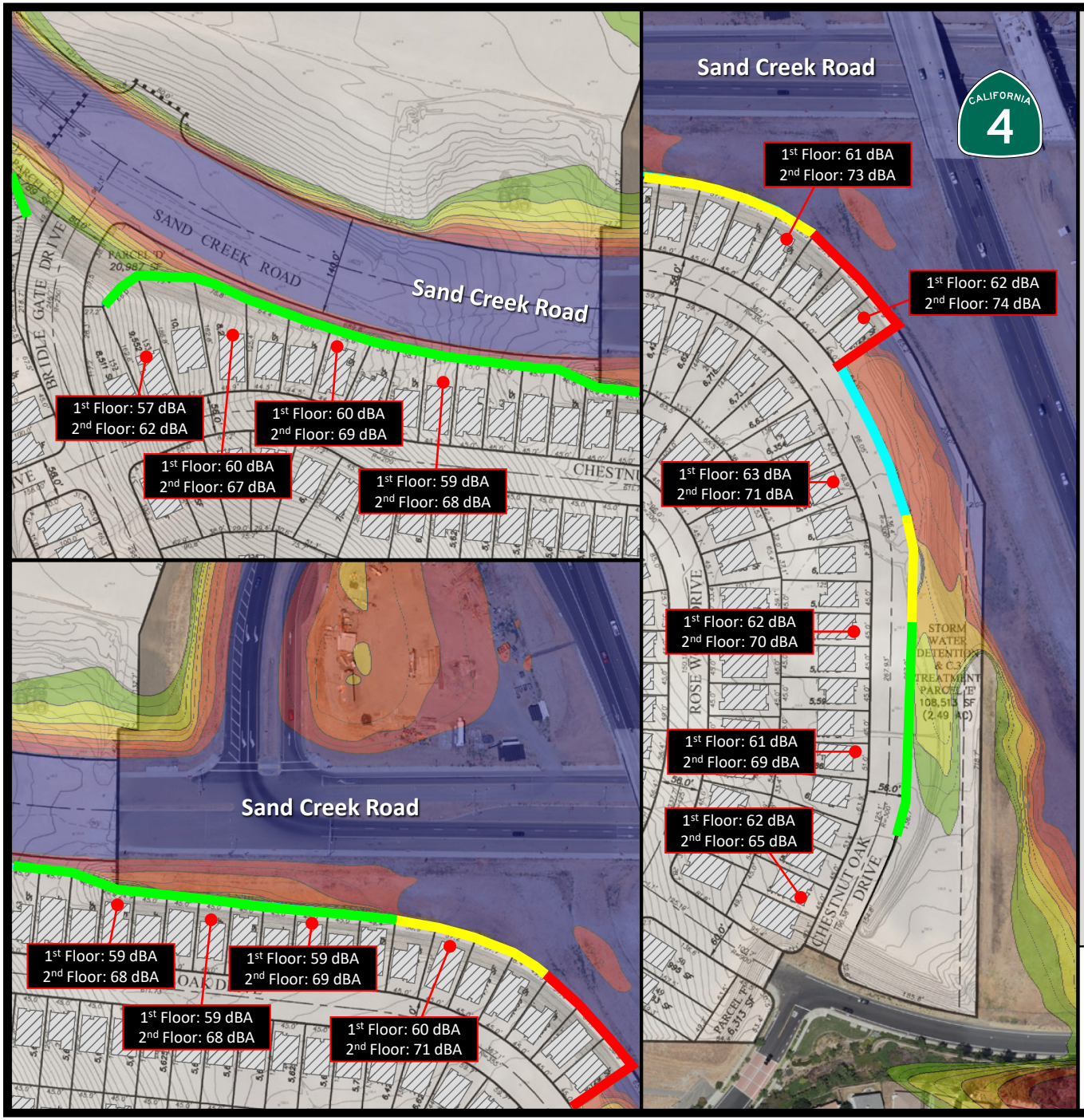
Although construction activities are temporary in nature and would likely occur during normal daytime working hours, construction-related noise could result in sleep interference at existing noise-sensitive land uses in the vicinity of the construction if construction activities were to occur outside the normal daytime hours. Therefore, impacts resulting from noise levels temporarily exceeding the threshold of significance due to construction would be considered ***potentially significant***.

Transportation Noise on Project Site (Non-CEQA Issue)

Exterior Transportation Noise

Compliance with City standards on new noise-sensitive receptors is not a CEQA consideration. However, this information is provided here so that a determination can be made regarding the ability of the proposed project to meet the requirements of the City of Brentwood for exterior and interior noise levels at new sensitive uses proposed under the project.

As shown on **Figure 3**, the proposed project would be exposed to exterior noise levels exceeding the City's 65 dBA L_{dn} exterior noise standard for residential uses along State Route 4 or major arterial roadways, as outlined in Policy N 2-1. With construction of the sound wall design show in **Figure 4,** proposed noise-sensitive residential uses would be exposed to exterior noise levels of 65 dBA L_{dn}, or less. This would comply with the City's 65 dBA standard.



Bridle Gate Residential

City of Brentwood, California

Figure 4

Future (2043) Transportation Noise Contours (dBA L_{dn}) – with Sound Walls

Noise Level, dB(A)		
65 <	<=	66
66 <	<=	67
67 <	<=	68
68 <	<=	69
69 <	<=	70
70 <		

Legend

- Proposed Building
- 8-Foot Wall
- 10-Foot Wall
- 11-Foot Wall
- 12-Foot Wall

N

Scale 1:200

0 40 80 160 240 320 feet

SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

Interior Transportation Noise

Based upon the exterior noise levels shown on **Figure 4**, the proposed project would be exposed to exterior noise levels of up to 63 dBA at first floors and up to 74 dBA L_{dn} at second floor building facades. As noted by Policy N 2-1, interior noise levels are required to be 45 dB L_{dn}, or less at receptors along the State Route 4, or major arterial corridors. Modern building construction methods typically yield an exterior-to-interior noise level reduction of 25 dBA. Therefore, where exterior noise levels are 70 dBA L_{dn}, or less, no additional interior noise control measures are typically required. For this project, exterior noise levels are predicted to be up to 63 dBA at first floors and 74 dBA L_{dn} at second floors, resulting in an interior noise level of approximately 38 dBA at first floors and 49 dBA L_{dn} at second floors, based on typical building construction. This would exceed the City's 45 dBA L_{dn} interior noise level standard for second floor areas of the proposed residential uses.

In order to meet the City's standard, additional interior noise control measures are needed. This would include the use of sound transmission class (STC) rated windows in the range of STC 34, or higher.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

1(a) Construction activities shall be limited to the hours set forth below:

Monday-Friday 8:00 AM to 5:00 PM
Saturday 9:00 AM to 4:00 PM

Construction shall be prohibited on Sundays and City holidays. These criteria shall be included in the grading plan submitted by the applicant/developer for review and approval of the Community Development Director prior to issuance of grading permits. Exceptions to allow expanded construction activities shall be reviewed on a case-by-case basis as determined by the Chief Building Official and/or City Engineer.

1(b) The project contractor shall ensure that the following construction noise BMPs are met on-site during all phases of construction:

- *All equipment driven by internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications. Mobile or fixed "package" equipment (e.g., arc welders, air compressors) shall be equipped with shrouds and noise- control features that are readily available for that type of equipment.*
- *All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.*
- *The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists.*

- *At all times during project grading and construction, stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from residences.*
- *Unnecessary idling of internal combustion engines shall be prohibited.*
- *Construction staging areas shall be established at locations that would create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction activities, to the extent feasible.*
- *Construction site and access road speed limits shall be established and enforced during the construction period.*
- *The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.*
- *Project-related public address or music systems shall not be audible at any adjacent receptor.*
- *Neighbors located adjacent to the construction site shall be notified of the construction schedule in writing.*
- *The construction contractor shall designate a "noise disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall be responsible for determining the cause of the noise complaint (e.g., starting too early, poor muffler, etc.) and instituting reasonable measures as warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.*

Construction noise BMPs shall be included in the grading plan submitted by the developer for review and approval by the Community Development Director prior to grading permit issuance.

Recommended Condition of Approval

Prior to approval of project improvement plans, the plans for the proposed project shall show that the first-row lots shall be shielded from State Route 4 and Sand Creek Road through the use of masonry sound walls per the approval of the City Engineer. The approximate locations of these barriers are shown on ***Figure 4****. Other types of barriers may be employed but shall be reviewed by an acoustical engineer prior to being constructed. Sound wall heights are assumed to be relative to building pad elevations and may achieve the required wall height through use of earthen berm and wall combinations to achieve the total height. Additionally, second floor windows of the first row of residences along the State Route 4 corridor and Sand Creek Road, should have a minimum STC rating of 34 for windows with a view of either roadway. Alternatively, an interior noise analysis shall be prepared by a qualified acoustic engineer outlining the measures required to meet the City's 45 dBA L_{dn} interior noise standard, especially at unshielded second floor facades along the State Route 4 corridor or Sand Creek Road.*

IMPACT 2: WOULD THE PROJECT GENERATE EXCESSIVE GROUNDBORNE VIBRATION OR GROUNDBORNE NOISE LEVELS?

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural.

The **Table 6** data indicate that construction vibration levels anticipated for the typical equipment used in residential construction projects are less than the 0.2 in/sec p.p.v. threshold at distances of 26 feet. This represents the most intensive construction vibration that would be expected with the use of vibratory compactors. Use of bulldozer, trucks, etc. would be expected to generate vibration levels of 0.09 in/sec p.p.v. at distances of 25 feet., well below the 0.2 in/sec p.p.v. criteria.

It should be noted that the 0.2 in/sec p.pv. threshold is considered a conservative threshold for temporary construction vibrations. The duration of vibration that would occur in close proximity to existing residential uses would be brief and extremely unlikely to cause even minor damage to modern structures.

Sensitive receptors which could be impacted by construction related vibrations, especially vibratory compactors/rollers, are generally located approximately 26 feet, or further, from typical construction activities. At these distances construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours.

It should be noted that one residence at the end of La Sata Drive could be located closer than 26 feet from project construction. Therefore, this could be a potentially significant impact should use of a vibratory compactor be required at distances of less than 26 feet. Implementation of the following mitigation measure will ensure that these potential impacts are reduced to a **less than significant** level.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

(2) Any compaction required less than 26 feet from any adjacent residential structures shall be accomplished by using static drum rollers which use weight instead of vibrations to achieve soil compaction. As an alternative to this requirement, pre-construction crack documentation and construction vibration monitoring could be conducted to ensure that construction vibrations do not cause damage to any adjacent structures.

IMPACT 3: FOR A PROJECT LOCATED WITHIN THE VICINITY OF A PRIVATE AIRSTRIP OR AN AIRPORT LAND USE PLAN OR, WHERE SUCH A PLAN HAS NOT BEEN ADOPTED, WITHIN TWO MILES OF A PUBLIC AIRPORT OR PUBLIC USE AIRPORT, WOULD THE PROJECT EXPOSE PEOPLE RESIDING OR WORKING IN THE PROJECT AREA TO EXCESSIVE NOISE LEVELS?

There are no airports within two miles of the project site. Therefore, this impact is not applicable to the proposed project.

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Appendix A: Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
ASTC	Apparent Sound Transmission Class. Similar to STC but includes sound from flanking paths and correct for room reverberation. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by +5 dBA and nighttime hours weighted by +10 dBA.
DNL	See definition of Ldn.
IIC	Impact Insulation Class. An integer-number rating of how well a building floor attenuates impact sounds, such as footsteps. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
Ldn	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
L(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50% of the time during the one-hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
NIC	Noise Isolation Class. A rating of the noise reduction between two spaces. Similar to STC but includes sound from flanking paths and no correction for room reverberation.
NNIC	Normalized Noise Isolation Class. Similar to NIC but includes a correction for room reverberation.
Noise	Unwanted sound.
NRC	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
RT60	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
SEL	Sound Exposure Level. SEL is a rating, in decibels, of a discrete event, such as an aircraft flyover or train pass by, that compresses the total sound energy into a one-second event.
SPC	Speech Privacy Class. SPC is a method of rating speech privacy in buildings. It is designed to measure the degree of speech privacy provided by a closed room, indicating the degree to which conversations occurring within are kept private from listeners outside the room.
STC	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations. The STC rating is typically used to rate the sound transmission of a specific building element when tested in laboratory conditions where flanking paths around the assembly don't exist. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.

Appendix B: Continuous and Short-Term Ambient Noise Measurement Results

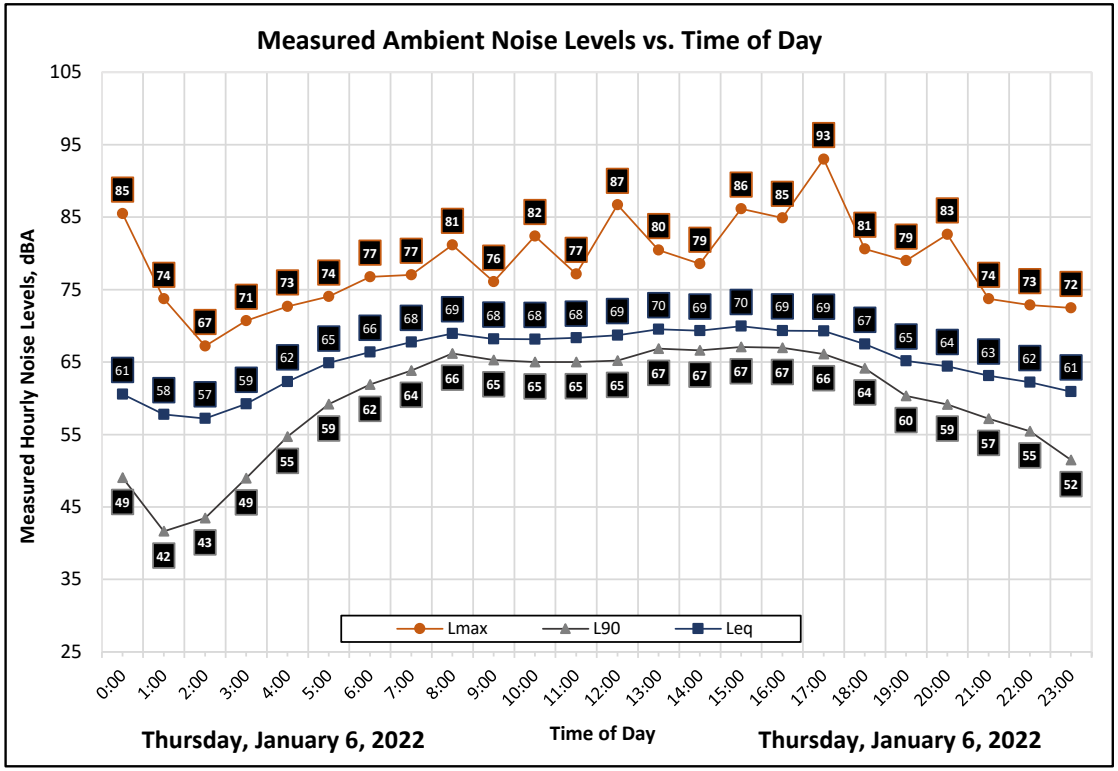


Appendix B1: Continuous Noise Monitoring Results

Site: LT-1
Project: Bridle Gate
Meter: LDL 820-5
Location: Northern Project Boundary
Calibrator: CAL200
Coordinates: 37.9429929°, -121.7425704°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Thursday, January 6, 2022	0:00	61	85	56	49
Thursday, January 6, 2022	1:00	58	74	53	42
Thursday, January 6, 2022	2:00	57	67	54	43
Thursday, January 6, 2022	3:00	59	71	57	49
Thursday, January 6, 2022	4:00	62	73	61	55
Thursday, January 6, 2022	5:00	65	74	64	59
Thursday, January 6, 2022	6:00	66	77	66	62
Thursday, January 6, 2022	7:00	68	77	67	64
Thursday, January 6, 2022	8:00	69	81	69	66
Thursday, January 6, 2022	9:00	68	76	68	65
Thursday, January 6, 2022	10:00	68	82	68	65
Thursday, January 6, 2022	11:00	68	77	68	65
Thursday, January 6, 2022	12:00	69	87	68	65
Thursday, January 6, 2022	13:00	70	80	69	67
Thursday, January 6, 2022	14:00	69	79	69	67
Thursday, January 6, 2022	15:00	70	86	70	67
Thursday, January 6, 2022	16:00	69	85	69	67
Thursday, January 6, 2022	17:00	69	93	68	66
Thursday, January 6, 2022	18:00	67	81	67	64
Thursday, January 6, 2022	19:00	65	79	64	60
Thursday, January 6, 2022	20:00	64	83	63	59
Thursday, January 6, 2022	21:00	63	74	62	57
Thursday, January 6, 2022	22:00	62	73	61	55
Thursday, January 6, 2022	23:00	61	72	59	52

Statistics	Leq	Lmax	L50	L90
Day Average	68	81	67	64
Night Average	62	74	59	52
Day Low	63	74	62	57
Day High	70	93	70	67
Night Low	57	67	53	42
Night High	66	85	66	62
Ldn	70	Day %		88
CNEL	70	Night %		12



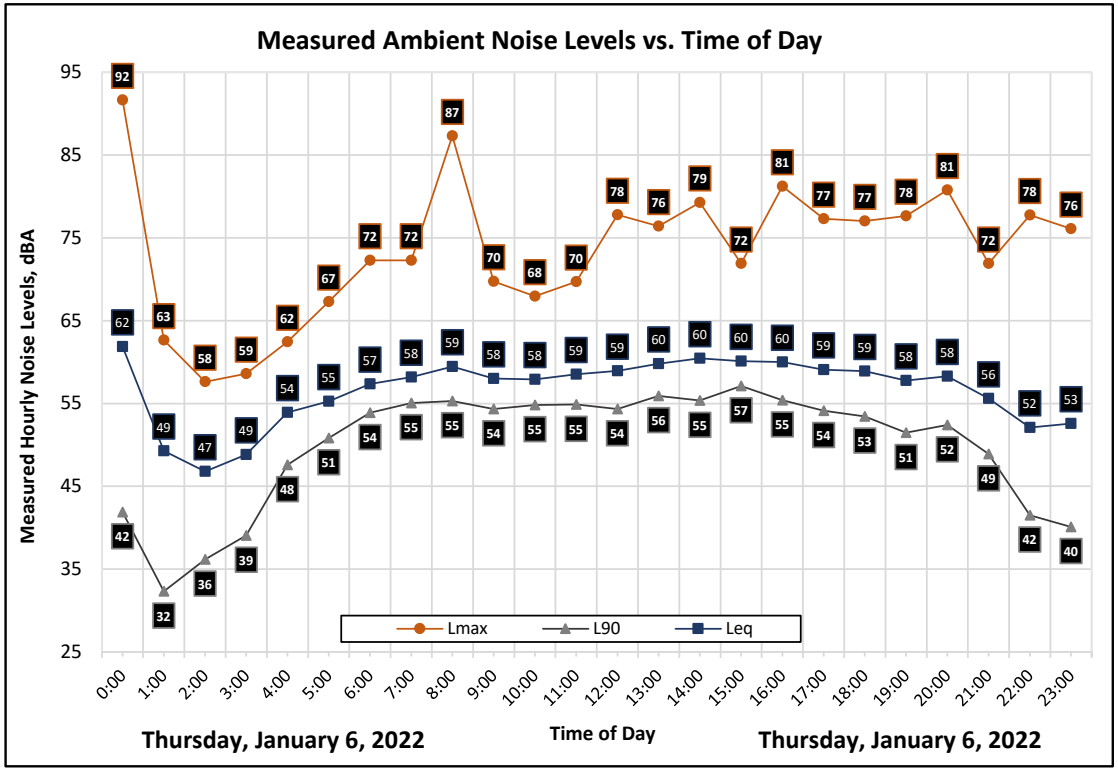


Appendix B2: Continuous Noise Monitoring Results

Site: LT-2
Project: Bridle Gate
Location: Southern Project Boundary
Coordinates: 37.9402057°, -121.7425781°
Meter: LDL 820-3
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Thursday, January 6, 2022	0:00	62	92	49	42
Thursday, January 6, 2022	1:00	49	63	46	32
Thursday, January 6, 2022	2:00	47	58	44	36
Thursday, January 6, 2022	3:00	49	59	47	39
Thursday, January 6, 2022	4:00	54	62	53	48
Thursday, January 6, 2022	5:00	55	67	54	51
Thursday, January 6, 2022	6:00	57	72	57	54
Thursday, January 6, 2022	7:00	58	72	58	55
Thursday, January 6, 2022	8:00	59	87	58	55
Thursday, January 6, 2022	9:00	58	70	57	54
Thursday, January 6, 2022	10:00	58	68	58	55
Thursday, January 6, 2022	11:00	59	70	58	55
Thursday, January 6, 2022	12:00	59	78	58	54
Thursday, January 6, 2022	13:00	60	76	59	56
Thursday, January 6, 2022	14:00	60	79	59	55
Thursday, January 6, 2022	15:00	60	72	60	57
Thursday, January 6, 2022	16:00	60	81	58	55
Thursday, January 6, 2022	17:00	59	77	57	54
Thursday, January 6, 2022	18:00	59	77	57	53
Thursday, January 6, 2022	19:00	58	78	56	51
Thursday, January 6, 2022	20:00	58	81	56	52
Thursday, January 6, 2022	21:00	56	72	54	49
Thursday, January 6, 2022	22:00	52	78	47	42
Thursday, January 6, 2022	23:00	53	76	49	40

Statistics	Leq	Lmax	L50	L90
Day Average	59	76	57	54
Night Average	56	70	50	43
Day Low	56	68	54	49
Day High	60	87	60	57
Night Low	47	58	44	32
Night High	62	92	57	54
Ldn	62	Day %		79
CNEL	63	Night %		21





Appendix B3 : Short Term Noise Monitoring Results

Site: ST-1
Project: Bridle Gate
Location: Southern Project Property Line
Coordinates: 37.9398765°, 121.7453572°

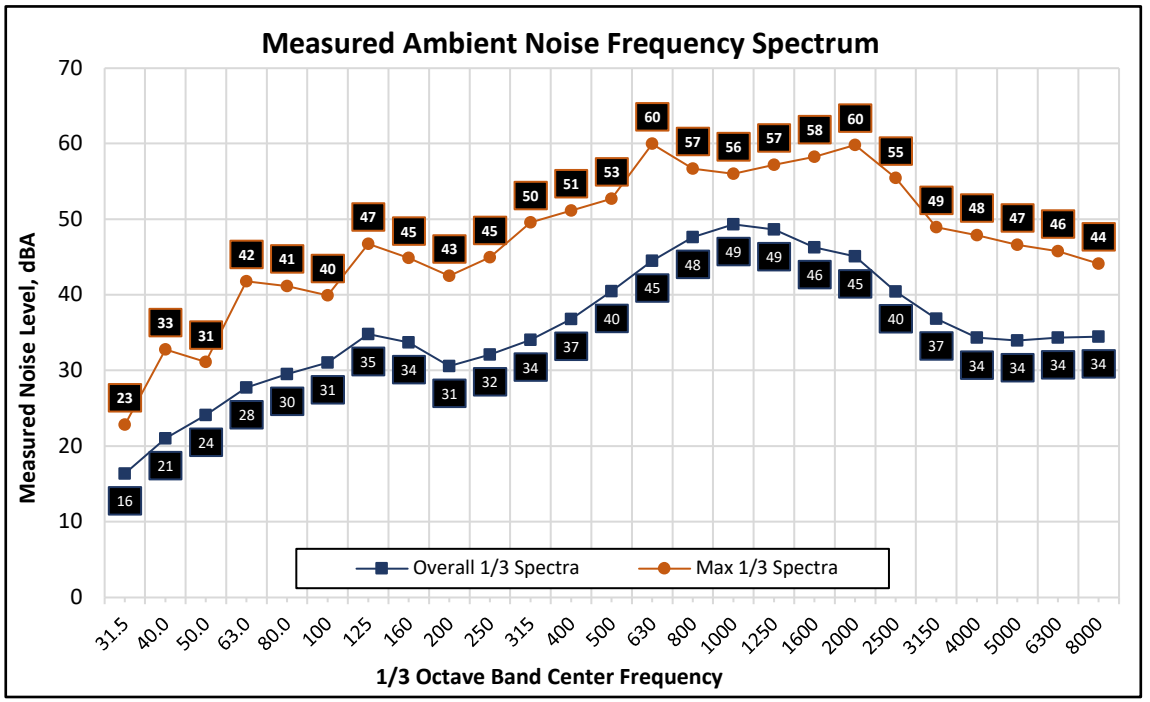
Meter: LDL 831-1
Calibrator: CAL200

Start: 2022-01-05 11:58:58
Stop: 2022-01-05 12:08:58
SLM: Model 831
Serial: 2658

Measurement Results, dBA

Duration:	0:10
L_{eq}:	55
L_{max}:	66
L_{min}:	51
L_{50}:	55
L_{90}:	53

Notes





Appendix C: Traffic Noise Calculation Inputs and Results



Appendix C-1

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 211206
Description: Bridle Gate Residential - Existing Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Heidorn Ranch Rd.	South of Lone Tree Way	3,520	80	0	20	1.0%	1.0%	45	110	0	83	38	18	58.1
2	Lone Tree Way	East of Heidorn Ranch Rd.	25,800	84	0	16	1.0%	1.0%	45	85	0	284	132	61	67.9
3	Sand Creek Road	East of Shady Willow Ln.	22,360	84	0	16	1.0%	3.0%	45	75	-5	306	142	66	64.2
4	St. Regis Ave.	South of San Jose Ave.	6,190	90	0	10	1.0%	1.0%	25	55	0	41	19	9	58.1
5	San Jose Ave.	East of St. Regis Ave.	6,190	90	0	10	1.0%	1.0%	35	50	-5	62	29	13	56.4
6	San Jose Ave.	West of Portofino Dr.	5,060	90	0	10	1.0%	1.0%	35	50	-5	54	25	12	55.5
7	San Jose Ave.	East of Portofino Dr.	5,600	90	0	10	1.0%	1.0%	35	55	-5	58	27	12	55.3
8	Balfour Rd.	East of SR-4	23,000	84	0	16	1.0%	1.0%	45	75	-5	263	122	57	63.2
9	W. Country Club Dr.	North of Balfour Rd.	4,480	90	0	10	1.0%	1.0%	25	100	0	33	15	7	52.8
10	Balfour Rd.	East of W. Country Club Dr.	11,920	90	0	10	1.0%	1.0%	45	80	-5	144	67	31	58.8
11	Balfour Rd.	West of E. Country Club Dr.	12,280	90	0	10	1.0%	1.0%	45	80	-5	147	68	32	59.0
12	E. Country Club Dr.	North of Balfour Rd.	3,540	90	0	10	1.0%	1.0%	25	70	-5	28	13	6	49.1
13	Balfour Rd.	East of E. Country Club Dr.	15,170	84	0	16	1.0%	1.0%	45	75	-5	200	93	43	61.4
14	Foothill Dr.	South of Balfour Rd.	3,310	90	0	10	1.0%	1.0%	25	70	-5	27	13	6	48.8
15	Presidio Dr.	North of W. Country Club Dr.	3,140	90	0	10	1.0%	1.0%	25	50	0	26	12	6	55.8
16	W. Country Club Dr.	West of Presidio Dr.	3,430	90	0	10	1.0%	1.0%	25	70	0	28	13	6	54.0
17	W. Country Club Dr.	East of Presidio Dr.	620	90	0	10	1.0%	1.0%	25	70	0	9	4	2	46.5
18	E. Country Club Dr.	West of Roundhill Dr.	1,030	90	0	10	1.0%	1.0%	25	55	0	12	6	3	50.3

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Appendix C-2

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 211206
Description: Bridle Gate Residential - Existing Plus Project Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Heidorn Ranch Rd.	South of Lone Tree Way	4,290	80	0	20	1.0%	1.0%	45	110	0	94	44	20	59.0
2	Lone Tree Way	East of Heidorn Ranch Rd.	26,710	84	0	16	1.0%	1.0%	45	85	0	291	135	63	68.0
3	Sand Creek Road	East of Shady Willow Ln.	23,970	84	0	16	1.0%	3.0%	45	75	-5	321	149	69	64.5
4	St. Regis Ave.	South of San Jose Ave.	6,760	90	0	10	1.0%	1.0%	25	55	0	43	20	9	58.5
5	San Jose Ave.	East of St. Regis Ave.	6,700	90	0	10	1.0%	1.0%	35	50	-5	65	30	14	56.7
6	San Jose Ave.	West of Portofino Dr.	5,570	90	0	10	1.0%	1.0%	35	50	-5	58	27	12	55.9
7	San Jose Ave.	East of Portofino Dr.	6,030	90	0	10	1.0%	1.0%	35	55	-5	61	28	13	55.6
8	Balfour Rd.	East of SR-4	23,000	84	0	16	1.0%	1.0%	45	75	-5	263	122	57	63.2
9	W. Country Club Dr.	North of Balfour Rd.	4,560	90	0	10	1.0%	1.0%	25	100	0	33	16	7	52.9
10	Balfour Rd.	East of W. Country Club Dr.	12,430	90	0	10	1.0%	1.0%	45	80	-5	148	69	32	59.0
11	Balfour Rd.	West of E. Country Club Dr.	12,790	90	0	10	1.0%	1.0%	45	80	-5	151	70	32	59.1
12	E. Country Club Dr.	North of Balfour Rd.	3,620	90	0	10	1.0%	1.0%	25	70	-5	29	13	6	49.2
13	Balfour Rd.	East of E. Country Club Dr.	15,600	84	0	16	1.0%	1.0%	45	75	-5	203	94	44	61.5
14	Foothill Dr.	South of Balfour Rd.	3,310	90	0	10	1.0%	1.0%	25	70	-5	27	13	6	48.8
15	Presidio Dr.	North of W. Country Club Dr.	3,270	90	0	10	1.0%	1.0%	25	50	0	27	12	6	55.9
16	W. Country Club Dr.	West of Presidio Dr.	3,560	90	0	10	1.0%	1.0%	25	70	0	28	13	6	54.1
17	W. Country Club Dr.	East of Presidio Dr.	620	90	0	10	1.0%	1.0%	25	70	0	9	4	2	46.5
18	E. Country Club Dr.	West of Roundhill Dr.	1,030	90	0	10	1.0%	1.0%	25	55	0	12	6	3	50.3

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Appendix C-3

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 211206
Description: Bridle Gate Residential - Cumulative
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Heidorn Ranch Rd.	South of Lone Tree Way	7,840	80	0	20	1.0%	1.0%	45	110	0	141	65	30	61.6
2	Lone Tree Way	East of Heidorn Ranch Rd.	40,140	84	0	16	1.0%	1.0%	45	85	0	382	177	82	69.8
3	Sand Creek Road	East of Shady Willow Ln.	26,830	84	0	16	1.0%	3.0%	45	75	-5	346	160	74	65.0
4	St. Regis Ave.	South of San Jose Ave.	6,190	90	0	10	1.0%	1.0%	25	55	0	41	19	9	58.1
5	San Jose Ave.	East of St. Regis Ave.	6,190	90	0	10	1.0%	1.0%	35	50	-5	62	29	13	56.4
6	San Jose Ave.	West of Portofino Dr.	5,310	90	0	10	1.0%	1.0%	35	50	-5	56	26	12	55.7
7	San Jose Ave.	East of Portofino Dr.	5,860	90	0	10	1.0%	1.0%	35	55	-5	60	28	13	55.5
8	Balfour Rd.	East of SR-4	32,350	84	0	16	1.0%	1.0%	45	75	-5	331	153	71	64.7
9	W. Country Club Dr.	North of Balfour Rd.	9,510	90	0	10	1.0%	1.0%	25	100	0	55	25	12	56.1
10	Balfour Rd.	East of W. Country Club Dr.	13,090	90	0	10	1.0%	1.0%	45	80	-5	153	71	33	59.2
11	Balfour Rd.	West of E. Country Club Dr.	13,740	90	0	10	1.0%	1.0%	45	80	-5	158	73	34	59.4
12	E. Country Club Dr.	North of Balfour Rd.	4,830	90	0	10	1.0%	1.0%	25	70	-5	35	16	7	50.4
13	Balfour Rd.	East of E. Country Club Dr.	18,430	84	0	16	1.0%	1.0%	45	75	-5	227	105	49	62.2
14	Foothill Dr.	South of Balfour Rd.	3,920	90	0	10	1.0%	1.0%	25	70	-5	30	14	7	49.5
15	Presidio Dr.	North of W. Country Club Dr.	3,270	90	0	10	1.0%	1.0%	25	50	0	27	12	6	55.9
16	W. Country Club Dr.	West of Presidio Dr.	3,650	90	0	10	1.0%	1.0%	25	70	0	29	13	6	54.2
17	W. Country Club Dr.	East of Presidio Dr.	710	90	0	10	1.0%	1.0%	25	70	0	10	4	2	47.1
18	E. Country Club Dr.	West of Roundhill Dr.	1,200	90	0	10	1.0%	1.0%	25	55	0	14	6	3	51.0

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Appendix C-4

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 211206
Description: Bridle Gate Residential - Cumulative Plus Project
Ldn/CNEL: Ldn
Hard/Soft: Soft

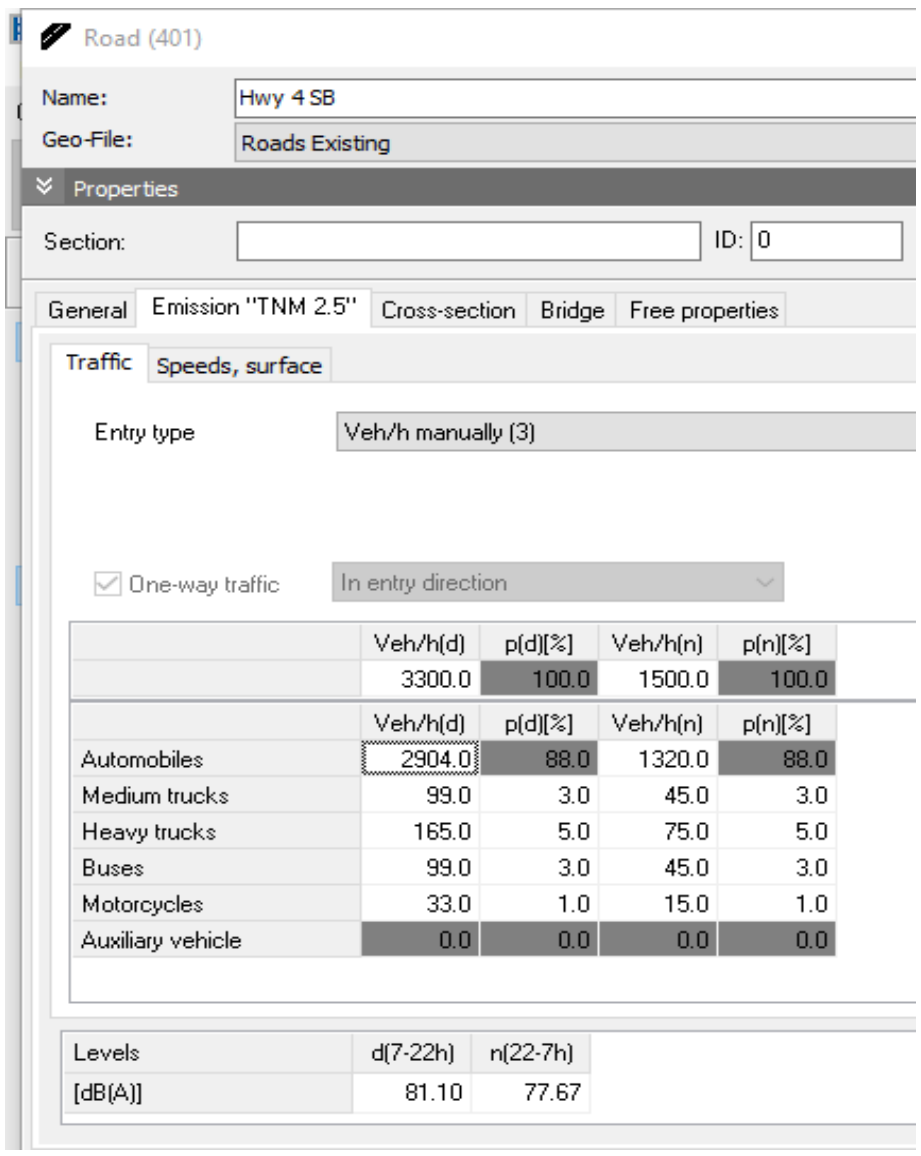
Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Heidorn Ranch Rd.	South of Lone Tree Way	7,840	80	0	20	1.0%	1.0%	45	110	0	141	65	30	61.6
2	Lone Tree Way	East of Heidorn Ranch Rd.	40,820	84	0	16	1.0%	1.0%	45	85	0	386	179	83	69.9
3	Sand Creek Road	East of Shady Willow Ln.	28,440	84	0	16	1.0%	3.0%	45	75	-5	359	167	77	65.2
4	St. Regis Ave.	South of San Jose Ave.	6,660	90	0	10	1.0%	1.0%	25	55	0	43	20	9	58.4
5	San Jose Ave.	East of St. Regis Ave.	6,620	90	0	10	1.0%	1.0%	35	50	-5	65	30	14	56.7
6	San Jose Ave.	West of Portofino Dr.	5,750	90	0	10	1.0%	1.0%	35	50	-5	59	27	13	56.1
7	San Jose Ave.	East of Portofino Dr.	6,220	90	0	10	1.0%	1.0%	35	55	-5	62	29	13	55.8
8	Balfour Rd.	East of SR-4	32,530	84	0	16	1.0%	1.0%	45	75	-5	332	154	72	64.7
9	W. Country Club Dr.	North of Balfour Rd.	9,590	90	0	10	1.0%	1.0%	25	100	0	55	25	12	56.1
10	Balfour Rd.	East of W. Country Club Dr.	13,600	90	0	10	1.0%	1.0%	45	80	-5	157	73	34	59.4
11	Balfour Rd.	West of E. Country Club Dr.	14,250	90	0	10	1.0%	1.0%	45	80	-5	162	75	35	59.6
12	E. Country Club Dr.	North of Balfour Rd.	4,910	90	0	10	1.0%	1.0%	25	70	-5	35	16	8	50.5
13	Balfour Rd.	East of E. Country Club Dr.	18,860	84	0	16	1.0%	1.0%	45	75	-5	231	107	50	62.3
14	Foothill Dr.	South of Balfour Rd.	3,920	90	0	10	1.0%	1.0%	25	70	-5	30	14	7	49.5
15	Presidio Dr.	North of W. Country Club Dr.	3,350	90	0	10	1.0%	1.0%	25	50	0	27	13	6	56.0
16	W. Country Club Dr.	West of Presidio Dr.	3,730	90	0	10	1.0%	1.0%	25	70	0	29	14	6	54.3
17	W. Country Club Dr.	East of Presidio Dr.	710	90	0	10	1.0%	1.0%	25	70	0	10	4	2	47.1
18	E. Country Club Dr.	West of Roundhill Dr.	1,200	90	0	10	1.0%	1.0%	25	55	0	14	6	3	51.0

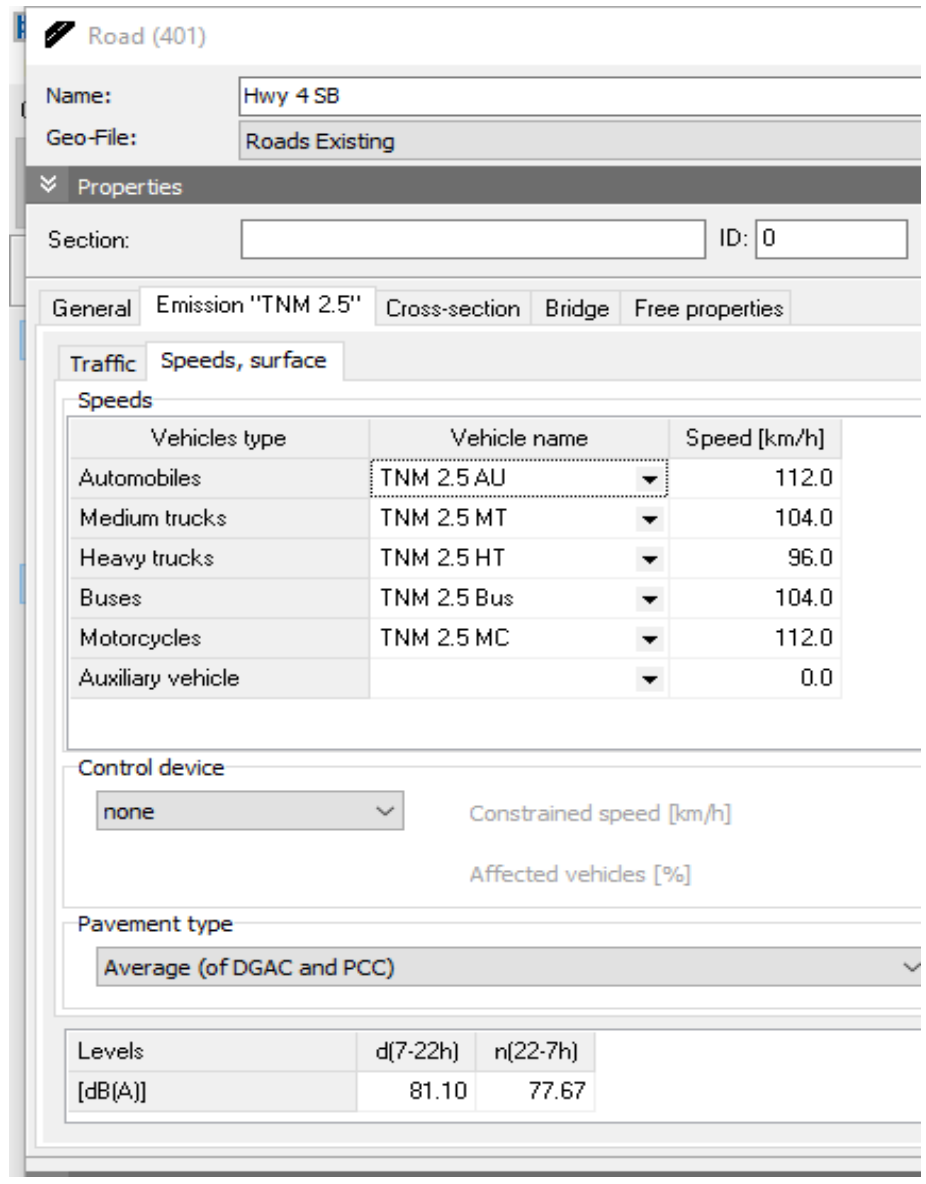
SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

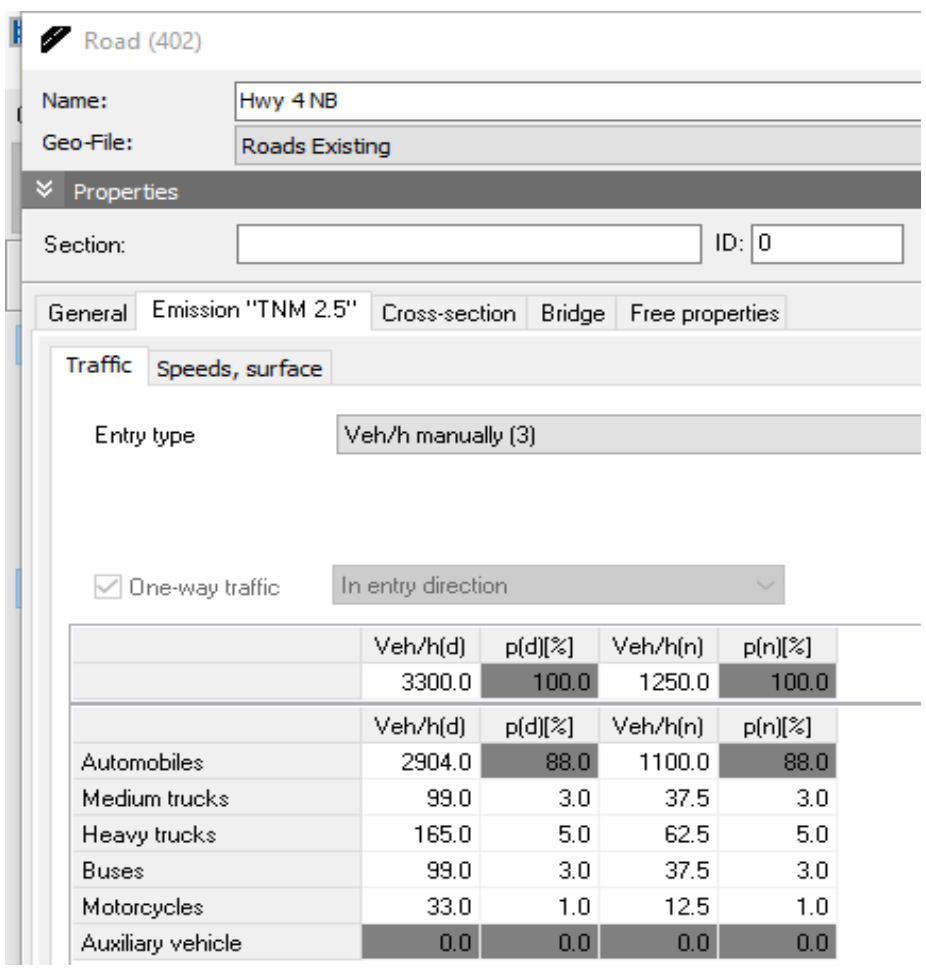
Appendix D: SoundPLAN Modeling Inputs

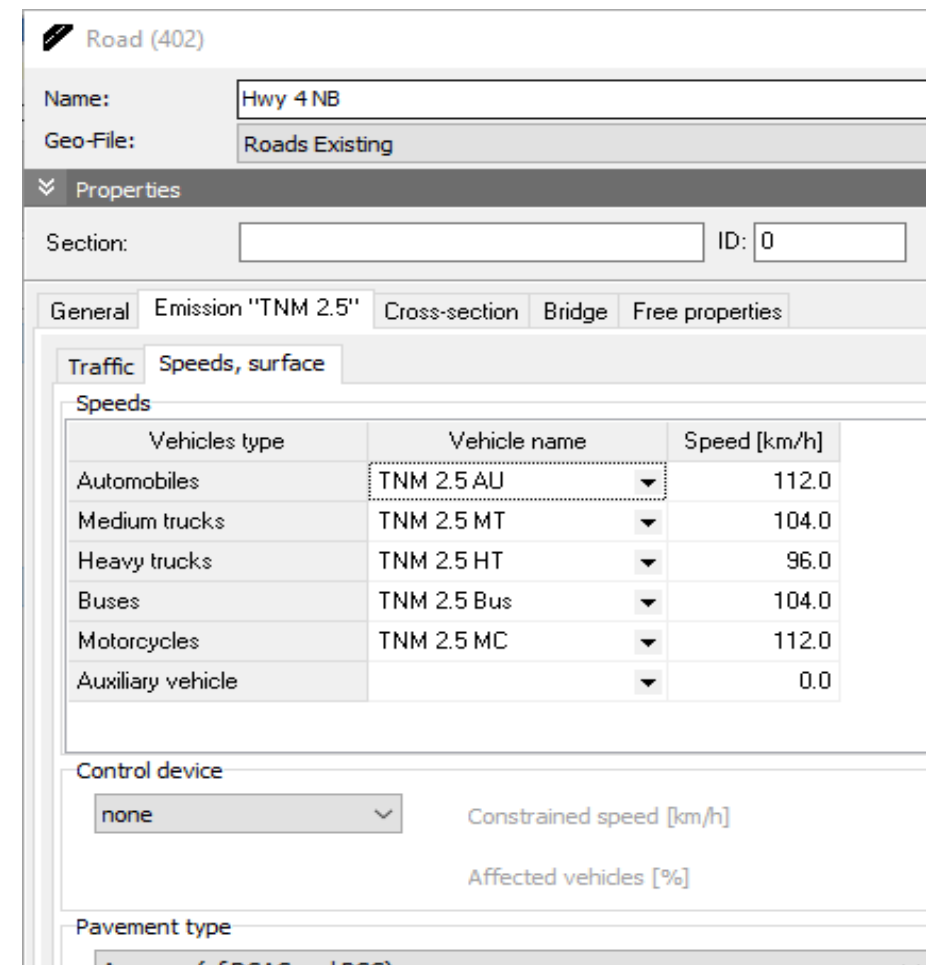
Bridle Gate Residential Project - SoundPLAN Roadway Inputs

Road	KM km	ADT Veh/2	Control de	Constraine	Affected ve	Pavement type	Gradient %
Hwy 4 SB	0	63000	none			Average (of DGAC and PCC)	0
Hwy 4 SB	0.324	63000	none			Average (of DGAC and PCC)	-5.6
Hwy 4 NB	0	60750	none			Average (of DGAC and PCC)	0
Hwy 4 NB	0.124	63000	none			Average (of DGAC and PCC)	0
Sand Creek Road (Future)	0	41820	none			Average (of DGAC and PCC)	2.4
Sand Creek Road	0	28935	none			Average (of DGAC and PCC)	-2.6
SB Off Ramp	0	27300	On ramp	48	100	Average (of DGAC and PCC)	-1.9
SB On Ramp	0	27300	On ramp	48	100	Average (of DGAC and PCC)	-1.6
SB On Ramp	0.131	27300	On ramp	48	100	Average (of DGAC and PCC)	5.1









Levels	d(7-22h)	n(22-7h)
[dB(A)]	81.10	76.88

Average (of DGAC and PCC)

Levels	d(7-22h)	n(22-7h)
[dB(A)]	81.10	76.88

Road (415)

Name: Sand Creek Road (Future)

Geo-File: Roads Future

Properties

Section: ID: 0

General | Emission "TNM 2.5" | Cross-section | Bridge | Free properties

Traffic | Speeds, surface

Entry type: Veh/h manually (3)

One-way traffic: In entry direction

	Veh/h(d)	p(d)[%]	Veh/h(n)	p(n)[%]
	2188.0	100.0	1000.0	100.0

	Veh/h(d)	p(d)[%]	Veh/h(n)	p(n)[%]
Automobiles	2100.5	96.0	940.0	94.0
Medium trucks	21.9	1.0	20.0	2.0
Heavy trucks	21.9	1.0	20.0	2.0
Buses	21.9	1.0	10.0	1.0
Motorcycles	21.9	1.0	10.0	1.0
Auxiliary vehicle	0.0	0.0	0.0	0.0

Levels	d(7-22h)	n(22-7h)
[dB(A)]	72.58	69.69

Road (415)

Name: Sand Creek Road (Future)

Geo-File: Roads Future

Properties

Section: ID: 0

General | Emission "TNM 2.5" | Cross-section | Bridge | Free properties

Traffic | Speeds, surface

Speeds

Vehicles type	Vehicle name	Speed [km/h]
Automobiles	TNM 2.5 AU	72.0
Medium trucks	TNM 2.5 MT	72.0
Heavy trucks	TNM 2.5 HT	72.0
Buses	TNM 2.5 Bus	72.0
Motorcycles	TNM 2.5 MC	72.0
Auxiliary vehicle		0.0

Control device: none

Constrained speed [km/h]

Affected vehicles [%]

Pavement type: Average (of DGAC and PCC)

Levels	d(7-22h)	n(22-7h)
[dB(A)]	72.58	69.69

Road (405)

Name: Sand Creek Road

Geo-File: Roads Existing

Properties

Section: ID: 0

General | Emission "TNM 2.5" | Cross-section | Bridge | Free properties

Traffic | Speeds, surface

Entry type: Veh/h manually (3)

One-way traffic: In entry direction

	Veh/h(d)	p(d)[%]	Veh/h(n)	p(n)[%]
	1509.0	100.0	700.0	100.0

	Veh/h(d)	p(d)[%]	Veh/h(n)	p(n)[%]
Automobiles	1418.5	94.0	658.0	94.0
Medium trucks	30.2	2.0	14.0	2.0
Heavy trucks	30.2	2.0	14.0	2.0
Buses	15.1	1.0	7.0	1.0
Motorcycles	15.1	1.0	7.0	1.0
Auxiliary vehicle	0.0	0.0	0.0	0.0

Levels	d(7-22h)	n(22-7h)
[dB(A)]	71.47	68.14

Road (405)

Name: Sand Creek Road

Geo-File: Roads Existing

Properties

Section: ID: 0

General | Emission "TNM 2.5" | Cross-section | Bridge | Free properties

Traffic | Speeds, surface

Speeds

Vehicles type	Vehicle name	Speed [km/h]
Automobiles	TNM 2.5 AU	72.0
Medium trucks	TNM 2.5 MT	72.0
Heavy trucks	TNM 2.5 HT	72.0
Buses	TNM 2.5 Bus	72.0
Motorcycles	TNM 2.5 MC	72.0
Auxiliary vehicle		0.0

Control device: none

Constrained speed [km/h]

Affected vehicles [%]

Pavement type: Average (of DGAC and PCC)

Levels	d(7-22h)	n(22-7h)
[dB(A)]	71.47	68.14

Road (403)

Name: SB Off Ramp

Geo-File: Roads Existing

Properties

Section: ID: 0

General | Emission "TNM 2.5" | Cross-section | Bridge | Free properties

Traffic | Speeds, surface

Entry type: Veh/h manually (3)

One-way traffic: In entry direction

	Veh/h(d)	p(d)[%]	Veh/h(n)	p(n)[%]
	1400.0	100.0	700.0	100.0
Automobiles	1316.0	94.0	658.0	94.0
Medium trucks	28.0	2.0	14.0	2.0
Heavy trucks	28.0	2.0	14.0	2.0
Buses	14.0	1.0	7.0	1.0
Motorcycles	14.0	1.0	7.0	1.0
Auxiliary vehicle	0.0	0.0	0.0	0.0

Levels	d(7-22h)	n(22-7h)
[dB(A)]	66.83	63.81

Geometry

Road (403)

Name: SB Off Ramp

Geo-File: Roads Existing

Properties

Section: ID: 0

General | Emission "TNM 2.5" | Cross-section | Bridge | Free properties

Traffic | Speeds, surface

Speeds

Vehicles type	Vehicle name	Speed [km/h]
Automobiles	TNM 2.5 AU	48.0
Medium trucks	TNM 2.5 MT	48.0
Heavy trucks	TNM 2.5 HT	48.0
Buses	TNM 2.5 Bus	48.0
Motorcycles	TNM 2.5 MC	48.0
Auxiliary vehicle		0.0

Control device: On ramp

Constrained speed [km/h]

Affected vehicles [%]

Pavement type: Average (of DGAC and PCC)

Levels	d(7-22h)	n(22-7h)
[dB(A)]	66.83	63.81

Road (404)

Name: SB On Ramp

Geo-File: Roads Existing

Properties

Section: ID: 0

General | Emission "TNM 2.5" | Cross-section | Bridge | Free properties

Traffic | Speeds, surface

Entry type: Veh/h manually (3)

One-way traffic: In entry direction

	Veh/h(d)	p(d)[%]	Veh/h(n)	p(n)[%]
	1400.0	100.0	700.0	100.0
Automobiles	1317.8	94.1	658.9	94.1
Medium trucks	26.9	1.9	13.4	1.9
Heavy trucks	27.4	2.0	13.7	2.0
Buses	13.9	1.0	6.9	1.0
Motorcycles	14.0	1.0	7.0	1.0
Auxiliary vehicle	0.0	0.0	0.0	0.0

Levels	d(7-22h)	n(22-7h)
[dB(A)]	66.78	63.77

Road (404)

Name: SB On Ramp

Geo-File: Roads Existing

Properties

Section: ID: 0

General | Emission "TNM 2.5" | Cross-section | Bridge | Free properties

Traffic | Speeds, surface

Speeds

Vehicles type	Vehicle name	Speed [km/h]
Automobiles	TNM 2.5 AU	48.0
Medium trucks	TNM 2.5 MT	48.0
Heavy trucks	TNM 2.5 HT	48.0
Buses	TNM 2.5 Bus	48.0
Motorcycles	TNM 2.5 MC	48.0
Auxiliary vehicle		0.0

Control device: On ramp

Constrained speed [km/h]

Affected vehicles [%]

Pavement type: Average (of DGAC and PCC)

Levels	d(7-22h)	n(22-7h)
[dB(A)]	66.78	63.77

Appendix I

BRIDLE GATE

Traffic Impact Study

BRENTWOOD, CALIFORNIA

APRIL 2020 | DRAFT 4

Prepared By:

Kimley»Horn

EXECUTIVE SUMMARY

This report documents the results of a traffic impact analysis completed for Bridle Gate, an approximately 134-acre development located west of State Route 4 at Sand Creek Road in Brentwood, California (the "project"). This study analyzes two proposed uses of the site that consist of single family homes, multi-family development, and commercial development.

The first development scenario includes:

- Single-Family Development: 328 homes
- Multi-Family Development: 258 units
- Commercial Development: 199,940 square feet

The second development scenario includes:

- Single-Family Development: 265 homes and a Brentwood Union School District K-5 Elementary School
- Multi-Family Development: 258 units
- Commercial Development: 199,940 square feet

It is assumed that the elementary school will be a public school and accommodate between 700 and 750 students, with an option to grow to 900 students over time. To be conservative, the trip generation for development scenario 2 assumes 900 students.

The purpose of this impact analysis is to identify potential environmental impacts to transportation facilities as required by the California Environmental Quality Act (CEQA). This traffic study was prepared based on criteria set forth by the City of Brentwood and Contra Costa Transportation Authority (CCTA).

Primary access to the site will be provided via extension of Sand Creek Road west of SR-4, extension of San Jose Avenue west of Saint Regis Avenue, and extension of Saint Regis Avenue north of San Jose Avenue. The following intersections and routes of regional significance are included in this evaluation:

Intersections

1. Lone Tree Way / Heidorn Ranch Road/Fairside Way
2. Lone Tree Way / SR-4 SB Ramps
3. Lone Tree Way / Jeffrey Way/SR-4 NB Entrance Ramp
4. Jeffrey Way / SR-4 NB Ramps
5. Sand Creek Road / Heidorn Ranch Road (Future)
6. Sand Creek Road / San Jose Avenue (Future)
7. Sand Creek Road / SR-4 SB Ramps
8. Sand Creek Road / SR-4 NB Ramps
9. Sand Creek Road / Sand Creek Crossing/Streets of Brentwood
10. Sand Creek Road / Shady Willow Lane/Highland Way
11. Sand Creek Road / Fairview Avenue
12. San Jose Avenue / St. Regis Avenue
13. San Jose Avenue / Portofino Drive
14. San Jose Avenue/ Fairview Avenue
15. Balfour Road / SR-4

16. Balfour Road / SR-4 SB Ramps (Future)
17. Balfour Road / SR-4 NB Ramps (Future)
18. Balfour Road / American Avenue / West Country Club Drive
19. Balfour Road / Foothill Drive / East Country Club Drive
20. West Country Club Drive / Presidio Drive
21. East Country Club Drive / Roundhill Drive

Routes of Regional Significance

1. Lone Tree Way
2. Sand Creek Road
3. Fairview Avenue
4. Balfour Road
5. SR-4

Based on the City's requirements, this traffic impact analysis was conducted for the study facilities for the following scenarios:

A. Existing (2017) Conditions
B. Existing (2017) plus Proposed Project Conditions
C. Existing plus Approved Projects Conditions
D. Existing plus Approved Projects plus Proposed Project Conditions
E. Cumulative (2040) Conditions
F. Cumulative (2040) plus Proposed Project Conditions

Significant findings of this study include:

- The proposed project is estimated to generate:
    - Development Scenario 1 - 14,829 new daily trips, with 589 trips (225 in, 364 out) in the morning peak hour, and 1,220 trips (657 in, 563 out) in the afternoon peak hour
    - Development Scenario 2 - 15,439 new daily trips, with 950 trips (437 in, 513 out) in the morning peak hour, and 1,302 trips (689 in, 613 out) in the afternoon peak hour

- The new grade-separated SR-4 interchange with Balfour Road is anticipated to be completed by Existing plus Approved Project Conditions. This improvement is being funded by the East Contra County Regional Fee and Financing Authority (ECCRFFA), which collects fees from developments in the area. The project would pay its required fees to the ECCRFFA which would be considered mitigation or avoidance of potential impacts.

- As defined by the City, the addition of the proposed project to the Existing (2017), Existing plus Approved Projects, and Cumulative (2040) conditions significantly worsens conditions at the following intersections and routes of regional significance:

Existing Plus Project (Development Scenario 1 & 2)

- #14 – Fairview Avenue at San Jose Avenue
    - AM (Increased delay, LOS E) and PM (Increased delay, LOS E) Peaks – Significant Impact
- #15 – SR-4 at Balfour Road
    - PM (Increased delay, LOS F) Peaks – Significant Impact
- #18 – W Country Club Drive/ American Avenue at Balfour Road

- AM (Increased delay, LOS F)

Existing Plus Approved Projects Plus Project (Development Scenario 1 & 2)

- # 2 – SR-4 SB Ramps at Lone Tree Way
  - AM (Increased delay, LOS E) and PM (Increased delay, LOS F) Peaks – Significant Impact
- #11 – Fairview Avenue at Sand Creek Road
  - AM (Increased delay, LOS E) Peak – Significant Impact
- #14 – Fairview Avenue at San Jose Avenue
  - AM (Increased delay, LOS D-) and PM (Worsened from LOD D to LOS E) Peaks – Significant Impact
- #18 – W Country Club Drive/ American Avenue at Balfour Road
  - AM (Increased delay, LOS F)

Cumulative Plus Project (Development Scenario 1 & 2)

- # 2 – SR-4 SB Ramps at Lone Tree Way
  - AM (Increased delay, LOS F) and PM (Increased delay, LOS F) Peaks – Significant Impact
- #7 – SR-4 SB Ramps at Sand Creek Rd
  - PM (Worsened from LOS D to LOS E) Peak – Significant Impact
- #11 – Fairview Avenue at Sand Creek Road
  - AM (Increased delay, LOS E) and PM (Increased delay, LOS F) Peaks – Significant Impact
- #14 – Fairview Avenue at San Jose Avenue
  - AM (Worsened from LOS D to LOS E) and PM (Increased delay, LOS E) Peaks – Significant Impact
- #18 – W Country Club Drive/ American Avenue at Balfour Road
  - AM (Increased delay, LOS F)

The following is a summary of the mitigation measures that would be the project's responsibility:

Intersection #2 – SR-4 SB Ramps at Lone Tree Way: Mitigation #4 & #8
The installation of a second eastbound right-turn lane and the restriping of the southbound approach to provide a right-turn lane, shared right and left-turn lane, and left-turn lane will improve the intersection operations to acceptable standards. It should be noted that this intersection is located in the City of Antioch and within Caltrans right-of-way. Therefore, since the governing agency for this traffic study is the City of Brentwood and they could not implement the proposed mitigation in another agency's right-of-way, this impact would remain significant and unavoidable.

Intersection #7 – SR-4 SB Ramps at Sand Creek Road: Mitigation #9
The restriping of the southbound approach to provide a right shared left-turn lane and two left-turn lanes will improve the intersection operations to acceptable standards. It should be noted that this intersection is located within Caltrans right-of-way. Therefore, since the governing agency for this traffic study is the City of Brentwood and they could not implement the proposed mitigation in another agency's right-of-way, this impact would remain significant and unavoidable. It should also be noted that there is a future project to construct the diagonal on-ramp from eastbound Sand Creek Road to southbound SR-4. However, this project has no identified funding source or timeline and therefore was not included as an improvement or potential mitigation.

Intersection #11 – Fairview Avenue at Sand Creek Road: Mitigation #5 & #11
The restriping of the southbound approach to provide a left-turn lane, a through lane, and a shared through and right-turn lane and the change in signal timing to increase the cycle length to give more time to the eastbound and westbound through movements will improve the intersection operations to acceptable standards.

Intersection #14 – Fairview Avenue at San Jose Avenue: Mitigation #1, #6 & #11
The change in signal timing to increase the cycle length to give more time to the northbound and southbound through movements will improve the intersection operations to acceptable standards.

Intersection #15 – SR-4 and Balfour Road: Mitigation #2
The construction of the new SR-4 / Balfour Road interchange will eliminate this intersection and replace it with two new intersections that provide access to SR-4. This improvement is a planned project that is assumed to be in place under Existing plus Approved Projects and Cumulative Conditions. The interchange and associated SR-4 widening is being funded by ECCRFFA. The project applicant would be required to pay their ECCRFFA fees for development which would be considered mitigation for the impact at this location. The interchange improvement improves the intersection operations to acceptable standards.

Intersection #18 – W Country Club Drive/ American Avenue at Balfour Road: Mitigation #3, #7 & #12
The addition of a third westbound left turn lane on Balfour road is recommended. Queue storage would be lengthened. Signage will be placed along Balfour Road and on the Signal Gantry to improve lane utilization and access to the school sire. These recommendations will improve the intersection operations to acceptable standards.

Prior to issuance of the first building permit, the applicant shall design and construct the improvements needed to accommodate a third westbound left turn lane. With the installation of the third left turn lane, the project would mitigate its impact.

The impact on transit, pedestrian or bicycle facilities is determined to be less than significant.

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1 INTRODUCTION

Kimley-Horn and Associates, Inc. was retained by Raney Planning and Management, Inc., to prepare a traffic study for a proposed residential and commercial development in Brentwood, California (i.e. the "Project"). Brentwood is in Contra Costa County, southeast of the City of Antioch and south of the City of Oakley.

The proposed project consists of approximately 134 acres, located west of State Route 4 at Sand Creek Road. This study analyzes two proposed uses of the site that consist of a mixture of single family homes, multi-family complexes, and retail uses.

The first development scenario includes:

- Single-Family Development: 328 homes
- Multi-Family Development: 258 units
- Commercial Development: 199,940 square feet

The second development scenario includes:

- Single-Family Development: 265 homes and a Brentwood Union School District K-5 Elementary School
- Multi-Family Development: 258 units
- Commercial Development: 199,940 square feet

It is assumed that the elementary school will be a public school and accommodate between 700 and 750 students, with an option to grow to 900 students over time. To be conservative, the trip generation for development scenario 2 assumes 900 students.

This study addresses the traffic and transportation effects of the proposed project in order to assist the project sponsor and affected jurisdictions in project planning and determining conditions of approval for the project. This traffic study was prepared based on criteria set forth by the City of Brentwood and Contra Costa Transportation Authority (CCTA).

1.1 STUDY METHODOLOGY

The following section describes the methodology used to determine study intersections, analyze study area conditions, and determine significant traffic impacts.

DEVELOPMENT CONDITIONS

This traffic impact study includes evaluation of the following development conditions:

- **Existing Conditions (2017)**
  - ***Existing Baseline Conditions:*** Represents the traffic conditions of the existing street network. Based on the traffic counts collected in September 2017 and existing roadway geometry and traffic control.

- ***Existing plus Project Conditions:*** Represents the traffic conditions of the existing street network with the addition of the proposed project (both development scenarios). Includes roadway geometry and traffic control anticipated with the completion of the project.

- **Existing plus Approved Projects Conditions**
  - ***Existing plus Approved Projects Baseline Conditions:*** Represents the traffic conditions of the street network assumed to be in place at project buildout. Based on traffic associated with several development projects in the vicinity of the proposed project. Includes roadway geometry and traffic control anticipated with the completion of reasonably foreseeable roadway projects.
  - ***Existing plus Approved Projects plus Project Conditions***: Represents the Existing plus Approved Projects traffic conditions with the addition of the proposed project (both development scenarios). Includes roadway geometry and traffic control anticipated with the completion of the project.

- **Cumulative Conditions (2040)**
  - ***Cumulative Baseline Conditions:*** Represents the traffic conditions of the street network assumed to be in place under Cumulative Conditions using the latest version of the CCTA travel demand model. Includes roadway geometry and traffic control anticipated to be present in 2040.
  - ***Cumulative plus Project Conditions:*** Represents the Cumulative traffic conditions with the addition of the proposed project (both development scenarios). Includes roadway geometry and traffic control anticipated with the completion of the project.

OPERATING CONDITIONS AND CRITERIA FOR INTERSECTIONS

Analysis of significant environmental impacts at intersections is based on the concept of Level of Service (LOS). The LOS of an intersection is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity. Levels of Service for this study were determined using methods defined in the Highway Capacity Manual, 2010 (HCM) and appropriate traffic analysis software.

The HCM included procedures for analyzing side-street stop-controlled (SSSC), all-way stop-controlled (AWSC), and signalized intersections. The SSSC procedure defines LOS as a function of average control delay for each minor street approach movement. Conversely, the AWSC and signalized intersection procedures define LOS as a function of average control delay for the intersection as a whole. **Table 1-1** relates the operational characteristics associated with each LOS category for signalized and unsignalized intersections.

Table 1–1 Intersection LOS Definitions

Level of Service	Description	Signalized (Avg. control delay per vehicle sec/veh.)	Unsignalized (Avg. control delay per vehicle sec/veh.)
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream	≤ 10	≤ 10
B	Stable traffic. Traffic flows smoothly with few delays.	> 10 – 20	> 10 – 15
C	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays.	> 20 – 35	> 15 – 25
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours.	> 35 – 55	> 25 – 35
E	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.	> 55 – 80	> 35 – 50
F	Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.	> 80	> 50

Sources: Transportation Research Board, *Highway Capacity Manual 2010*, National Research Council, 2010

For unsignalized intersections, traffic signals may be justified when traffic operations fall below acceptable thresholds and when one or more signal warrants are satisfied. Traffic volumes at the unsignalized study intersections were compared against the peak hour warrant in the 2014 California Manual on Uniform Traffic Control Devices (CA MUTCD)[1]. Traffic Signal Warrant #3 – Peak Hour Volume Warrant is satisfied when traffic volumes on the major and minor approaches exceed thresholds for one hour of the day. The Peak Hour Warrant is generally the first warrant to be satisfied. Other warrants such as for minimum vehicle volumes, interruption of continuous traffic, and traffic progression were not evaluated because they generally require higher traffic volumes to be satisfied.

ROUTES OF REGIONAL SIGNIFICANCE

Contra Costa County Measure C established a sales tax to be used to fund transportation improvements in Contra Costa County. The measure included a growth management program and required CCTA to develop a comprehensive transportation plan and update it every other year. Measure J, approved by the voters of Contra Costa in November 2004, extended the Measure C half sales tax for transportation through to 2034. It went into effect on April 1, 2009.

To receive a share of the sales tax generated by Measure J, local jurisdictions must adhere to the LOS standards that Measure J applies to local streets and roads. The Measure J standards are applied to streets and roads for which the jurisdictions are responsible. Each jurisdiction must take appropriate action to ensure that the LOS standards are met, including routes of regional significance. Designated regional

[1] *California Manual on Uniform Traffic Control Devices*, (FHWA's MUTCD 2009 Edition, as amended for use in California), 2014 Edition, Revision 2, April 7, 2017.

routes include all the freeways and state highways, and the most significant arterials in Contra Costa County.

CCTA classifies several roadways within or near the Project area as suburban arterial routes of regional significance. These routes include Balfour Road, Fairview Avenue, Lone Tree Way, and Sand Creek Road[2]. Suburban arterial routes are roadway segments where the capacity and quality of service are typically controlled by the operations of the signalized intersections. Per the *East County Action Plan for Routes of Regional Significance* (September 2017), suburban arterial routes should maintain LOS D or better at all signalized intersections, except on Bailey Road or at Traffic Management Program (TMP) sites.

FREEWAYS

CCTA's routes of regional significance also include the SR-4 freeway. SR-4 is currently a two-lane highway north and south of the signalized intersection with Balfour Road and changes to a grade-separated freeway in future scenarios. Per the *East County Action Plan for Routes of Regional Significance* (September 2017), SR-4 must be evaluated using delay index as a measure of effectiveness. Delay index is a comparison of congested travel time to free-flow travel time along the route. Delay Index for routes of regional significance in East County should not exceed 2.5 during the AM or PM Peak Period. In addition, the HOV lane utilization should exceed 600 vehicles per lane in the peak direction during the peak hour.

THRESHOLDS OF SIGNIFICANCE

Project impacts are determined by comparing conditions with the proposed project to those without the proposed project. Significant impacts for intersections are created when traffic from the proposed project causes the LOS to fall below a specific threshold.

Intersections

The City of Brentwood and CCTA accepts a minimum level of service of D at signalized and unsignalized study intersections. Therefore, the following conditions would result in a significant impact at an intersection within the study area:

1. If the intersection operates at an acceptable LOS (i.e. A, B, or C, or D) without the project and degrades to an unacceptable LOS (i.e. E, or F) with the project, then it is a significant impact.

2. If the intersection operates at an unacceptable LOS (i.e. E, or F) without the project and the project increases the delay at the intersection, then it is a significant impact.

STUDY INTERSECTIONS INCLUDED IN ANALYSIS

The proposed project will generate new vehicular trips that will increase traffic volumes on the nearby street network. To assess changes in traffic conditions associated with the proposed project, the following intersections were selected for evaluation in this traffic study in concurrence with the City of Brentwood:

1. Lone Tree Way / Heidorn Ranch Road/Fairside Way
2. Lone Tree Way / SR-4 SB Ramps
3. Lone Tree Way / Jeffrey Way/SR-4 NB Entrance Ramp

[2] *Final East County Action Plan for Routes of Regional Significance*, TRANSPLAN, September 2017.

4. Jeffrey Way / SR-4 NB Ramps
5. Sand Creek Road / Heidorn Ranch Road (Future)
6. Sand Creek Road / San Jose Avenue (Future)
7. Sand Creek Road / SR-4 SB Ramps
8. Sand Creek Road / SR-4 NB Ramps
9. Sand Creek Road / Sand Creek Crossing/Streets of Brentwood
10. Sand Creek Road / Shady Willow Lane/Highland Way
11. Sand Creek Road / Fairview Avenue
12. San Jose Avenue / St. Regis Avenue
13. San Jose Avenue / Portofino Drive
14. San Jose Avenue/ Fairview Avenue
15. Balfour Road / SR-4
16. Balfour Road / SR-4 SB Ramps (Future)
17. Balfour Road / SR-4 NB Ramps (Future)
18. Balfour Road / American Avenue / West Country Club Drive
19. Balfour Road / Foothill Drive / East Country Club Drive
20. West Country Club Drive / Presidio Drive
21. East Country Club Drive / Roundhill Drive

These study intersections are illustrated in **Figure 1-1**.

OTHER STUDY FACILITIES

The following routes of regional significance were also evaluated in this traffic impact analysis:

Suburban Arterial Routes

1. Lone Tree Way
2. Sand Creek Road
3. Fairview Avenue
4. Balfour Road

Freeway

1. SR-4

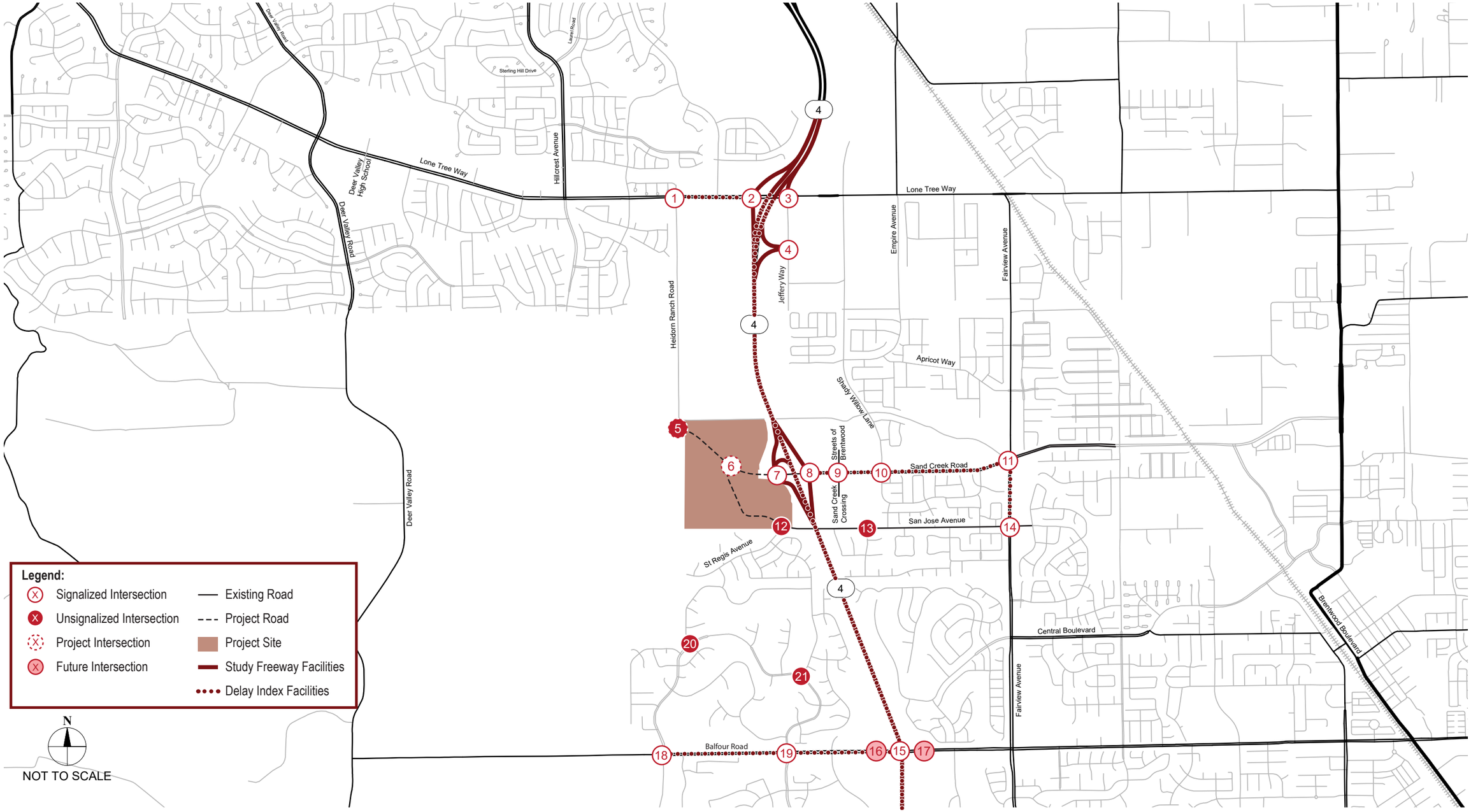


Figure 1-1
Project Location and Study Intersections

1.2 PROJECT DESCRIPTION

The proposed project site consists of approximately 134 acres and is located west of SR-4 and south of Sand Creek Road. For the purposes of providing flexibility in the ultimate site layout but obtaining approval on the proposed project, two development scenarios are analyzed. The project location is shown in **Figure 1-1** and the project's proposed site plan and subarea designation is shown in **Figure 1-2**.

The first development scenario includes:

- Single-Family Development: 328 homes
- Multi-Family Development: 258 units
- Commercial Development: 199,940 square feet

The second development scenario includes:

- Single-Family Development: 265 homes and a Brentwood Union School District K-5 Elementary School
- Multi-Family Development: 258 units
- Commercial Development: 199,940 square feet

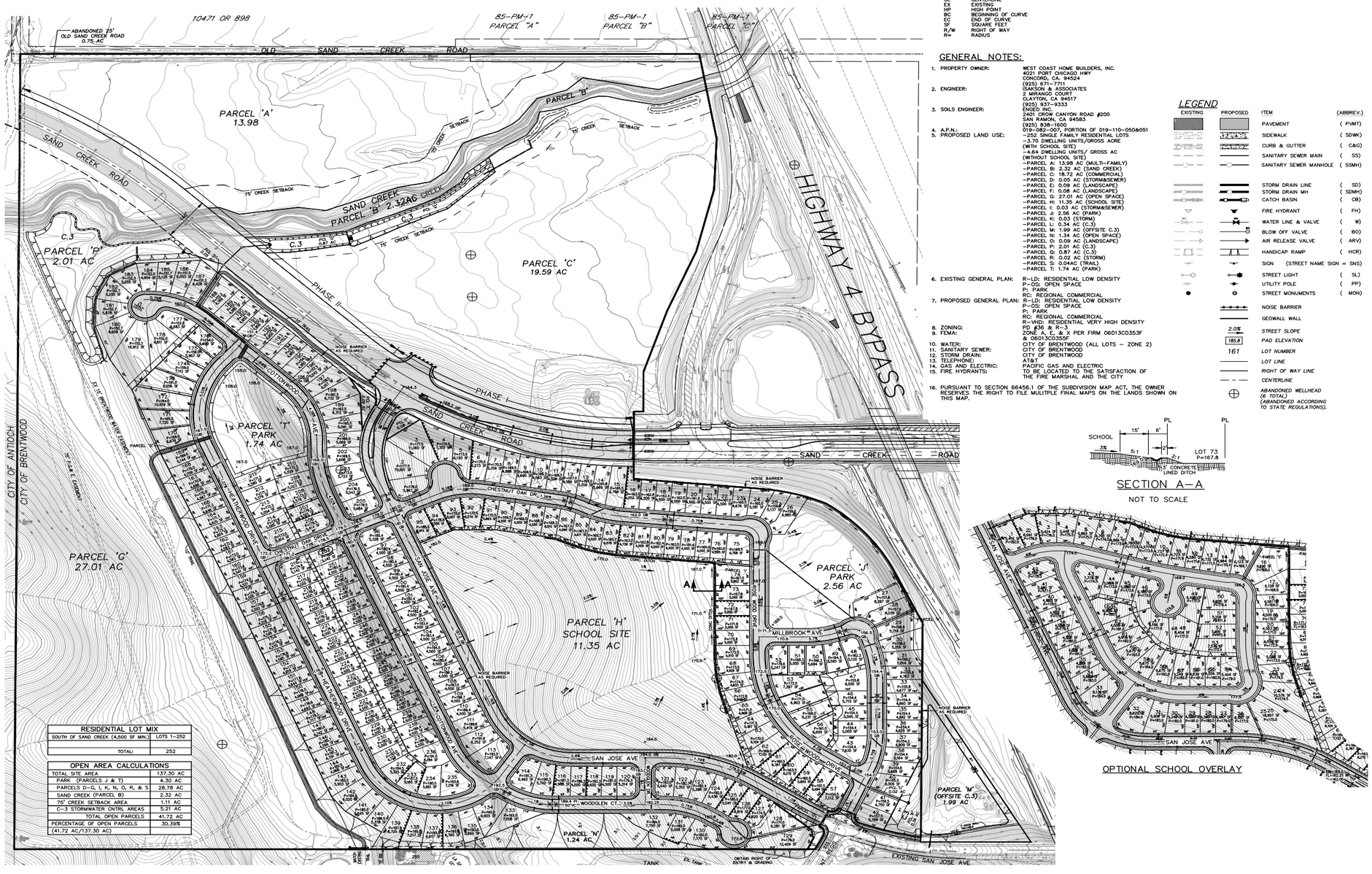
It is assumed that the elementary school will be a public school and accommodate between 700 and 750 students, with an option to grow to 900 students over time. To be conservative, the trip generation for development scenario 2 assumes 900 students.

The proposed project would construct several roadways and intersections that would only be in place with the project and are assumed to be in place for all analyses that include the project traffic. Vehicular access to the proposed single-family residential area would be provided at Sand Creek Road and San Jose Avenue. Access to the multi-family apartment complex would be provided by a new roadway extending southward from Old Sand Creek Road to the proposed Sand Creek Road extension. An internal circulation system would be provided throughout the proposed single-family residential subdivision. A summary of these improvements are as follows:

- Extension of Sand Creek Road west of SR-4 to Heidorn Ranch Road
- Extension of San Jose Avenue west from Saint Regis Avenue to its termination in the residential areas of the project
- Extension of Saint Regis Avenue north from San Jose Avenue to its termination in the residential areas of the project
- Construction of new roadway extending southward from Old Sand Creek Road to the proposed Sand Creek Road extension

The following future intersections are assumed to only be in place with the project and are assumed to be in place for all analyses that include the project traffic:

5. Sand Creek Road / Heidorn Ranch Road
6. Sand Creek Road / San Jose Avenue



RESIDENTIAL LOT MIX	
SOUTH OF SAND CREEK (4,500 SF MIN.)	LOTS 1–252
TOTAL:	252

OPEN AREA CALCULATIONS	
TOTAL SITE AREA	137.30 AC
PARK (PARCELS J & T)	4.30 AC
PARCELS D–G, I, K, N, Q, R, & S	28.78 AC
SAND CREEK (PARCEL B)	2.32 AC
75' CREEK SETBACK AREA	1.11 AC
C–3 STORMWATER CNTRL AREAS	5.21 AC
TOTAL OPEN PARCELS	41.72 AC
PERCENTAGE OF OPEN PARCELS (41.72 AC/137.30 AC)	30.39%

ABBREVIATIONS:

SS	SANITARY SEWER
SD	STORM DRAIN
W	WATER
Z2	WATER PRESSURE ZONE 2
CL	CENTERLINE
EX	EXISTING
HP	HIGH POINT
BC	BEGINNING OF CURVE
EC	END OF CURVE
SF	SQUARE FEET
R/W	RIGHT OF WAY
R=	RADIUS

GENERAL NOTES:

1. PROPERTY OWNER: WEST COAST HOME BUILDERS, INC. 4021 PORT CHICAGO HWY CONCORD, CA. 94524 (925) 671–7711
2. ENGINEER: ISAKSON & ASSOCIATES 2 MIRANGO COURT CLAYTON, CA 94517 (925) 937–9333
3. SOILS ENGINEER: ENGEO INC. 2401 CROW CANYON ROAD #200 SAN RAMON, CA 94583 (925) 838–1600
4. A.P.N.: 019–082–007, PORTION OF 019–110–050&051
5. PROPOSED LAND USE:
   - –252 SINGLE FAMILY RESIDENTIAL LOTS
   - –3.70 DWELLING UNITS/GROSS ACRE (WITH SCHOOL SITE)
   - –4.64 DWELLING UNITS/ GROSS AC (WITHOUT SCHOOL SITE)
   - –PARCEL A: 13.98 AC (MULTI–FAMILY)
   - –PARCEL B: 2.32 AC (SAND CREEK)
   - –PARCEL C: 18.72 AC (COMMERCIAL)
   - –PARCEL D: 0.05 AC (STORM&SEWER)
   - –PARCEL E: 0.09 AC (LANDSCAPE)
   - –PARCEL F: 0.08 AC (LANDSCAPE)
   - –PARCEL G: 27.01 AC (OPEN SPACE)
   - –PARCEL H: 11.35 AC (SCHOOL SITE)
   - –PARCEL I: 0.03 AC (STORM&SEWER)
   - –PARCEL J: 2.56 AC (PARK)
   - –PARCEL K: 0.03 (STORM)
   - –PARCEL L: 0.34 AC (C.3)
   - –PARCEL M: 1.99 AC (OFFSITE C.3)
   - –PARCEL N: 1.34 AC (OPEN SPACE)
   - –PARCEL O: 0.09 AC (LANDSCAPE)
   - –PARCEL P: 2.01 AC (C.3)
   - –PARCEL Q: 0.87 AC (C.3)
   - –PARCEL R: 0.02 AC (STORM)
   - –PARCEL S: 0.04AC (TRAIL)
   - –PARCEL T: 1.74 AC (PARK)
6. EXISTING GENERAL PLAN: R–LD: RESIDENTIAL LOW DENSITY; P–OS: OPEN SPACE; P: PARK; RC: REGIONAL COMMERCIAL
7. PROPOSED GENERAL PLAN: R–LD: RESIDENTIAL LOW DENSITY; P–OS: OPEN SPACE; P: PARK; RC: REGIONAL COMMERCIAL; R–VHD: RESIDENTIAL VERY HIGH DENSITY
8. ZONING: PD #36 & R–3
9. FEMA: ZONE A, E, & X PER FIRM 06013C0353F & 06013C0355F
10. WATER: CITY OF BRENTWOOD (ALL LOTS – ZONE 2)
11. SANITARY SEWER: CITY OF BRENTWOOD
12. STORM DRAIN: CITY OF BRENTWOOD
13. TELEPHONE: AT&T
14. GAS AND ELECTRIC: PACIFIC GAS AND ELECTRIC
15. FIRE HYDRANTS: TO BE LOCATED TO THE SATISFACTION OF THE FIRE MARSHAL AND THE CITY
16. PURSUANT TO SECTION 66456.1 OF THE SUBDIVISION MAP ACT, THE OWNER RESERVES THE RIGHT TO FILE MULITPLE FINAL MAPS ON THE LANDS SHOWN ON THIS MAP.

LEGEND

EXISTING	PROPOSED	ITEM	(ABBREV.)
		PAVEMENT	(PVMT)
		SIDEWALK	(SDWK)
		CURB & GUTTER	(C&G)
		SANITARY SEWER MAIN	(SS)
		SANITARY SEWER MANHOLE	(SSMH)
		STORM DRAIN LINE	(SD)
		STORM DRAIN MH	(SDMH)
		CATCH BASIN	(CB)
		FIRE HYDRANT	(FH)
		WATER LINE & VALVE	(W)
		BLOW OFF VALVE	(BO)
		AIR RELEASE VALVE	(ARV)
		HANDICAP RAMP	(HCR)
		SIGN (STREET NAME SIGN = SNS)	
		STREET LIGHT	(SL)
		UTILITY POLE	(PP)
		STREET MONUMENTS	(MON)
		NOISE BARRIER	
		GEOWALL WALL	
	2.0%	STREET SLOPE	
	185.8	PAD ELEVATION	
	161	LOT NUMBER	
		LOT LINE	
		RIGHT OF WAY LINE	
		CENTERLINE	
		ABANDONED WELLHEAD (6 TOTAL) (ABANDONED ACCORDING TO STATE REGULATIONS).	

SECTION A–A

NOT TO SCALE

OPTIONAL SCHOOL OVERLAY

Figure 1-2
Bridle Gate Development Site Plan

2 EXISTING CONDITIONS

This section summarizes the existing roadway circulation network, daily and peak-hour traffic volumes, and operations at the study intersections and roadway segments.

CURRENT USE OF SITE

The site is currently undeveloped and does not generate any trips. The adjacent street network is built up to the limits of the site and the proposed project will tie into the existing truncated streets.

ADJACENT STREET SYSTEM

The following is a description of the principal roadways included in this study:

State Route 4 (SR-4) provides east-west connectivity between Interstate 80 (I-80) and the Sierra Nevada mountains, connecting with Interstate 680 (I-680) and State Route 160 west of the project site. State Route 4 passes through Antioch and Brentwood north-south where the project is located, and continuing east towards Stockton where it connects with Interstate 5 (I-5), State Route 99 (SR-99), and terminates in the Sierra Nevada Mountains at State Route 89. There are several projects currently planned that ultimately will expand SR-4 from four to eight lanes between Loveridge Road and SR-160, add a Bay Area Rapid Transit (BART) extension from Pittsburg to Antioch, improve the SR-160 and SR-4 Connector Ramps, and construct a grade-separated interchange at Balfour Road. Within the City of Brentwood, SR-4 was formerly known as the State Route 4 Bypass, but it has recently been changed to be part of State Route 4. As part of the improvements associated with becoming SR-4, the existing road will eventually be widened to a 4-lane divided freeway with interchanges at Lone Tree Way, Sand Creek Road, Balfour Road, Marsh Creek Road, and Walnut Boulevard.

Lone Tree Way is a major arterial that has six lanes and is located at the north end of the project area. Lone Tree Way runs north-south in Antioch, turns east-west and intersects with SR-4 near Brentwood, and terminates just east of Brentwood Boulevard. This roadway provides regional connectivity from the project area to the City of Antioch, and is fronted by, and provides direct access to, many commercial land uses. The posted speed limit is 45 mph.

Sand Creek Road is a major arterial that has four travel lanes and currently provides east-west connections from SR-4 to just east of Garin Parkway. Sand Creek Road would be the primary connection to the proposed project and currently provides access to major retail centers just east of SR-4. The Sand Creek Road and SR-4 interchange project was completed in early November 2013 as part of the SR-4 development plan. Sand Creek Road is planned to be extended east of Garin Boulevard to Sellers Avenue and west of SR-4 to Deer Valley Road. The posted speed limit is 45 mph between Highway 4 and O'Hara Avenue and 35 mph between O'Hara Avenue and Garin Parkway.

Balfour Road is a major arterial that has four travel lanes and is located at the south end of the project area. Balfour Road runs east-west, terminates at Deer Valley Road to the west and becomes Fallman Boulevard east of Bixler Road, providing access from downtown Brentwood to/from unincorporated areas within Contra Costa County.

Fairview Avenue is a north-south arterial roadway which connects from Lone Tree Way on the north end and becomes Vineyards Parkway just south of SR-4, providing access to residential neighborhoods throughout Brentwood. Fairview Avenue is a major arterial between Sand Creek Road and Balfour Road where it has four travel lanes, and a minor arterial between Sand Creek Road and Lone Tree Way where it has two travel lanes. The posted speed limit is 35 mph between Lone Tree Way and Sand Creek Road and 45 mph between Sand Creek Road and Balfour Road.

Shady Willow Lane has four travel lanes and is a north-south minor arterial connecting Lone Tree Way to Sand Creek Road, providing access to commercial and residential areas. The posted speed limit 35 mph between Lone Tree Way and Grant Street and 45 mph between Grant Street and Sand Creek Road.

Other roadways incorporated in this analysis (i.e. San Jose Avenue, Country Club Drive) are local roads that provide connectivity to surrounding neighborhoods and/or other portions of the City.

2.1 EXISTING LANE CONFIGURATIONS AND TRAFFIC CONTROL

Existing intersection lane configurations and traffic controls are illustrated in **Figure 2-1**. The study intersections are also listed below with existing traffic control:

Signalized Intersections

- #1 – Lone Tree Way at Heidorn Ranch Road/Fairside Way
- #2 – Lone Tree Way at SR-4 SB Ramps
- #3 – Lone Tree Way at Jeffery Way/SR-4 NB Entrance Ramp
- #4 – Jeffery Way at SR-4 NB Ramps
- #7 – Sand Creek Road at SR-4 SB Ramps
- #8 – Sand Creek Road at SR-4 NB Ramps
- #9 – Sand Creek Road at Streets of Brentwood
- #10 – Sand Creek Road at Shady Willow Lane/Highland Way
- #11 – Sand Creek Road at Fairview Avenue
- #14 – San Jose Avenue at Fairview Avenue
- #15 – Balfour Road at SR-4
- #18 – Balfour Road at American Avenue/ W Country Club Drive
- #19 – Balfour Road at Foothill Drive/ E Country Club Drive

All-way Stop Controlled (AWSC) Intersections

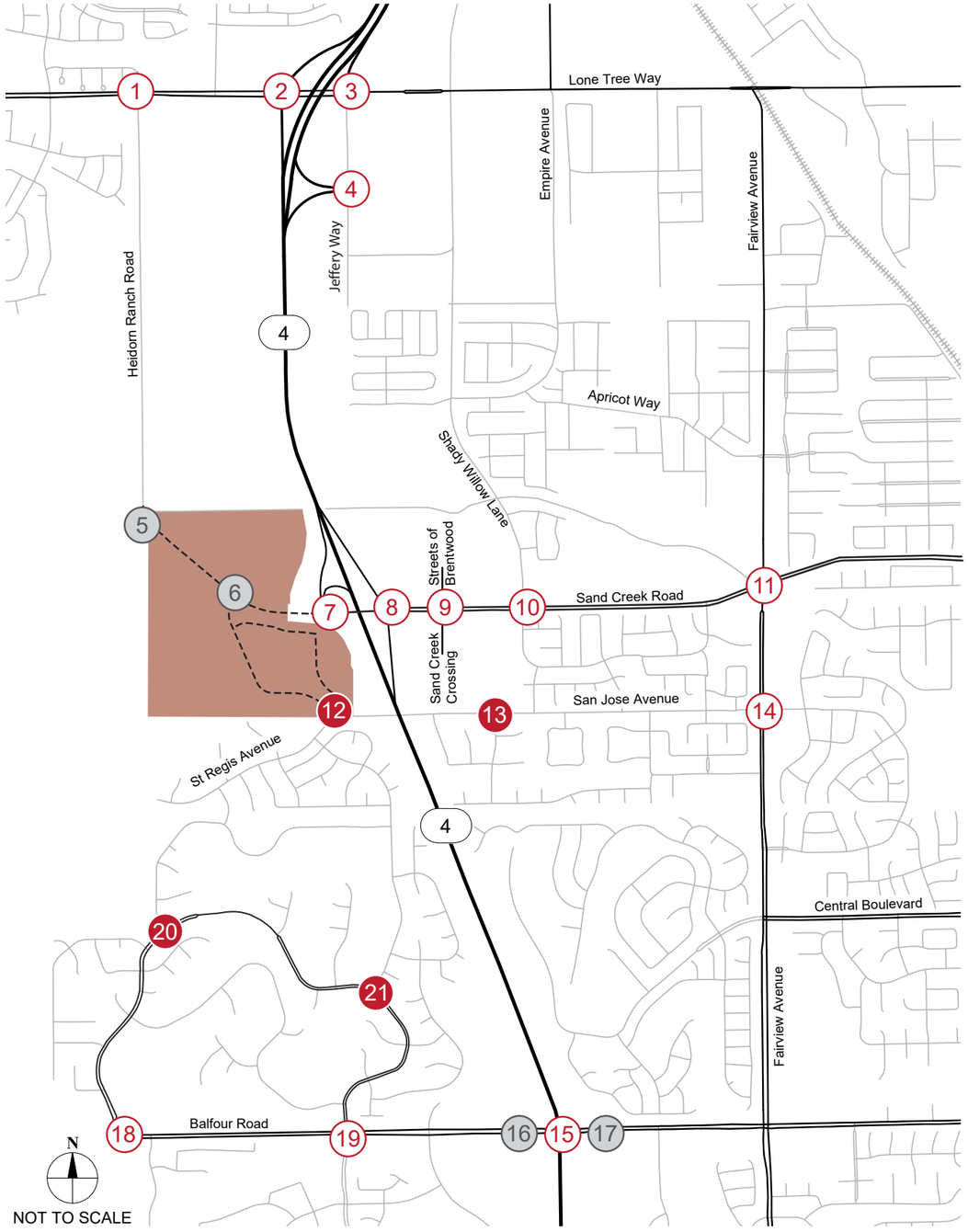
- #20 – W Country Club Drive at Presidio Drive
- #21 – E Country Club Drive at Roundbill Drive

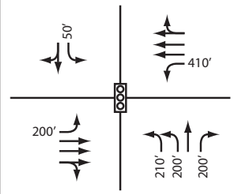
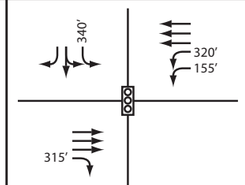
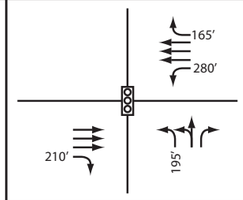
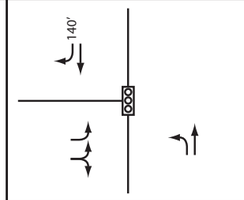
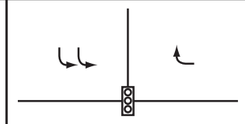
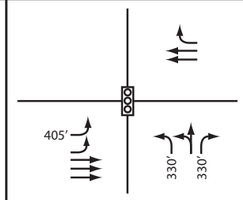
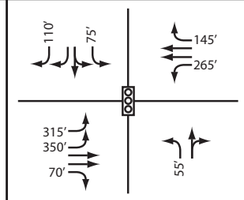
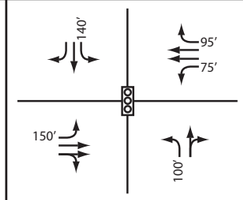
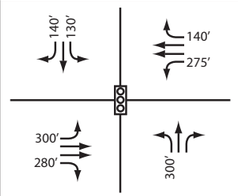
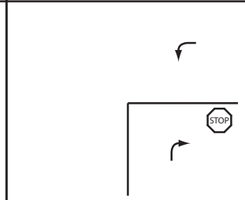
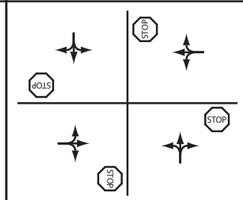
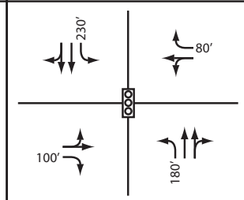
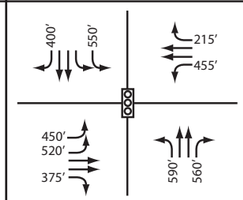
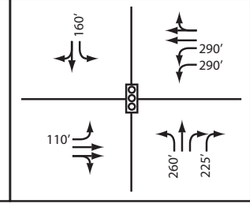
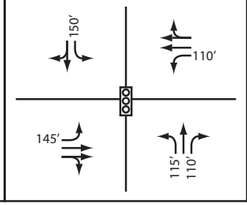
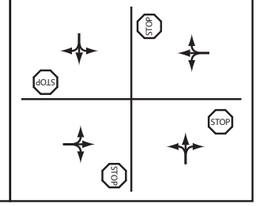
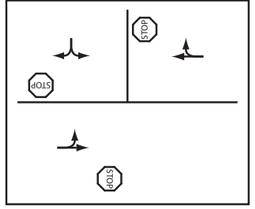
Side-street Stop Controlled (SSSC) Intersections

- #12 – San Jose Avenue at St. Regis Avenue
- #13 – San Jose Avenue at Portofino Drive

Future Intersections with Approved Projects

- #16 – Balfour Road at SR-4 SB Ramps
- #17 – Balfour Road at SR-4 NB Ramps



1. Lone Tree Wy/ Heidorn Ranch Rd/Fairside Wy	2. Lone Tree Wy/ SR-4 EB Ramps	3. Lone Tree Wy/ Jeffery Wy/SR-4 WB On-Ramp	4. SR-4 WB Ramps/ Jeffery Wy	5. Sand Creek Rd/ Heidorn Ranch Rd
				Intersection does not exist under this scenario
6. Sand Creek Rd/ San Jose Ave	7. Sand Creek Rd/ SR-4 EB Ramps	8. Sand Creek Rd/ SR-4 WB Ramps	9. Sand Creek Rd/ Sand Creek Crossing	10. Sand Creek Rd/ Shady Willow Ln/Highland Wy
Intersection does not exist under this scenario				
11. Sand Creek Rd/ Fairview Ave	12. San Jose Ave/ St. Regis Ave/Rose Wood Dr	13. San Jose Ave/ Portofino Dr	14. San Jose Ave/ Fairview Ave	15. Balfour Rd/ SR-4
				
16. Balfour Rd/ SR-4 EB Ramps	17. Balfour Rd/ SR-4 WB Ramps	18. Balfour Rd/ American Ave/W Country Club Dr	19. Balfour Rd/ Foothill Dr/E Country Club Dr	20. W Country Club Dr/ Presidio Dr
Intersection does not exist under this scenario	Intersection does not exist under this scenario			
21. E Country Club Dr/ Roundhill Dr				
				

Legend:

X Signalized	XX′ Storage Length
X Unsignalized	Project Road
X Does Not Exist	Project Site

Figure 2-1
Existing Conditions - Lane Geometry and Traffic Control

Future Intersections with the Project

- #5 – Sand Creek Road at Heidorn Ranch Road (AWSC)
- #6 – Sand Creek Road at San Jose Avenue (Signal)

2.2 EXISTING TRANSIT FACILITIES

Transit service in the City of Brentwood is provided by Tri-Delta Transit (TDT). TDT currently operates two routes (383 and 385) on weekdays and two routes on weekends (383 and 395) that serve the project area. Route 383 runs from the Antioch Park & Ride (Hillcrest) east to the City of Oakley, south to the City of Brentwood, crosses back west into the City of Antioch via Lone Tree Way and returns to the Park & Ride via Deer Valley Road. Route 385 runs between the Antioch Park & Ride (Hillcrest) and the Brentwood Park & Ride, using local streets including Hillcrest Avenue, Lone Tree Way, Sand Creek Road, Fairview Avenue, and Balfour Road as well as SR-4 to approach its selected trips to American Avenue. Route 395, runs from the Antioch Park & Ride (Hillcrest) south on SR-4 to Lone Tree Way where it heads east and then south to connect with Sand Creek Road before heading north on SR-4 back to the Antioch Park & Ride. Bus routes in the vicinity of the project are illustrated in **Figure 2-2** and more detailed routes are provided in **Appendix A**. TDT and the City of Brentwood also provide a dial-a-ride service for the elderly and handicapped population.

2.3 EXISTING BICYCLE AND PEDESTRIAN FACILITIES

Sand Creek Road, Balfour Road, Fairview Avenue, E Country Club Drive, W Country Club Drive, and Shady Willow Lane all generally provide a striped (Class II) bike lane and sidewalk facilities. San Jose Avenue and St. Regis Avenue both have Class II bicycle lanes near the project site. Lone Tree Way lacks bicycle facilities and is designed to accommodate vehicles, but provides sidewalks on both sides of the street. Pedestrians and bicyclists are prohibited on SR-4.

The City of Brentwood Parks and Recreation Department has bicycle and pedestrian trail locations across the city including within the project area. Asphalt trails run along Lone Tree Way, SR-4 between San Jose Avenue and Castellina Drive, Fairview Avenue and along Old Sand Creek Road crossing Fairview Avenue. Concrete trails run along Balfour Road east of SR-4 and Sand Creek Road, crossing Fairview Avenue.

In addition, the Class I Mokelumne Coast to Crest Trail exists along the Marsh Creek Trail and the East Bay Municipal Utility District's Mokelumne Aqueduct right-of-way. Near the project area the trail currently has a connection across SR-4 north of the project area. The trail will ultimately run between the Sierra Nevada Mountains and the Oakland/Jack London Square shoreline.

2.4 EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES

Weekday intersection turning movement volumes for the 17 existing study intersections were collected on Wednesday, September 13, 2017 by All Traffic Data. Volumes were collected during the AM (7-9 AM) and PM (2-6 PM) peak periods of the weekday when local schools were in session. The extended afternoon period was used to capture the afternoon school peak traffic. The PM commute peak was determined to be the higher afternoon peak and was used for the analysis.

On the day the counts were collected, Heritage High School had a late start. To capture the traffic patterns during a regular day schedule, weekday intersection turning movement volumes collected on Tuesday,

February 14, 2017 were also used for the study intersections along Balfour Road during the AM peak period.

Intersection volume data sheets for all traffic counts are provided in **Appendix B**. The existing peak-hour turning movement volumes used are shown in **Figure 2-3**.

2.5 EXISTING LOS AT STUDY INTERSECTIONS

Traffic operations were evaluated at the study intersections under Existing Conditions. Results of the analysis are presented in **Table 2-1**.

As shown in the table, the study intersections that currently do not function within acceptable standards are:

- #14 – Fairview Avenue at San Jose Avenue
    - AM (LOS E) and PM (LOS E) Peaks
- #15 – SR-4 and Balfour Road
    - PM (LOS F) Peak
- #18 – W Country Club Drive/ American Avenue at Balfour Road
    - AM (LOS E)

These are preexisting deficiencies and not a result of the proposed project. Analysis sheets are provided in **Appendix C**.

2.6 EXISTING FREEWAY ANALYSIS

Traffic operations were evaluated at SR-4 under Existing Conditions. Results of the analyses are presented in **Table 2-2**. As shown in the Table, SR-4 between Lone Tree Way and Balfour functions within acceptable standards under Existing Conditions.

Analysis sheets are provided in **Appendix C**.

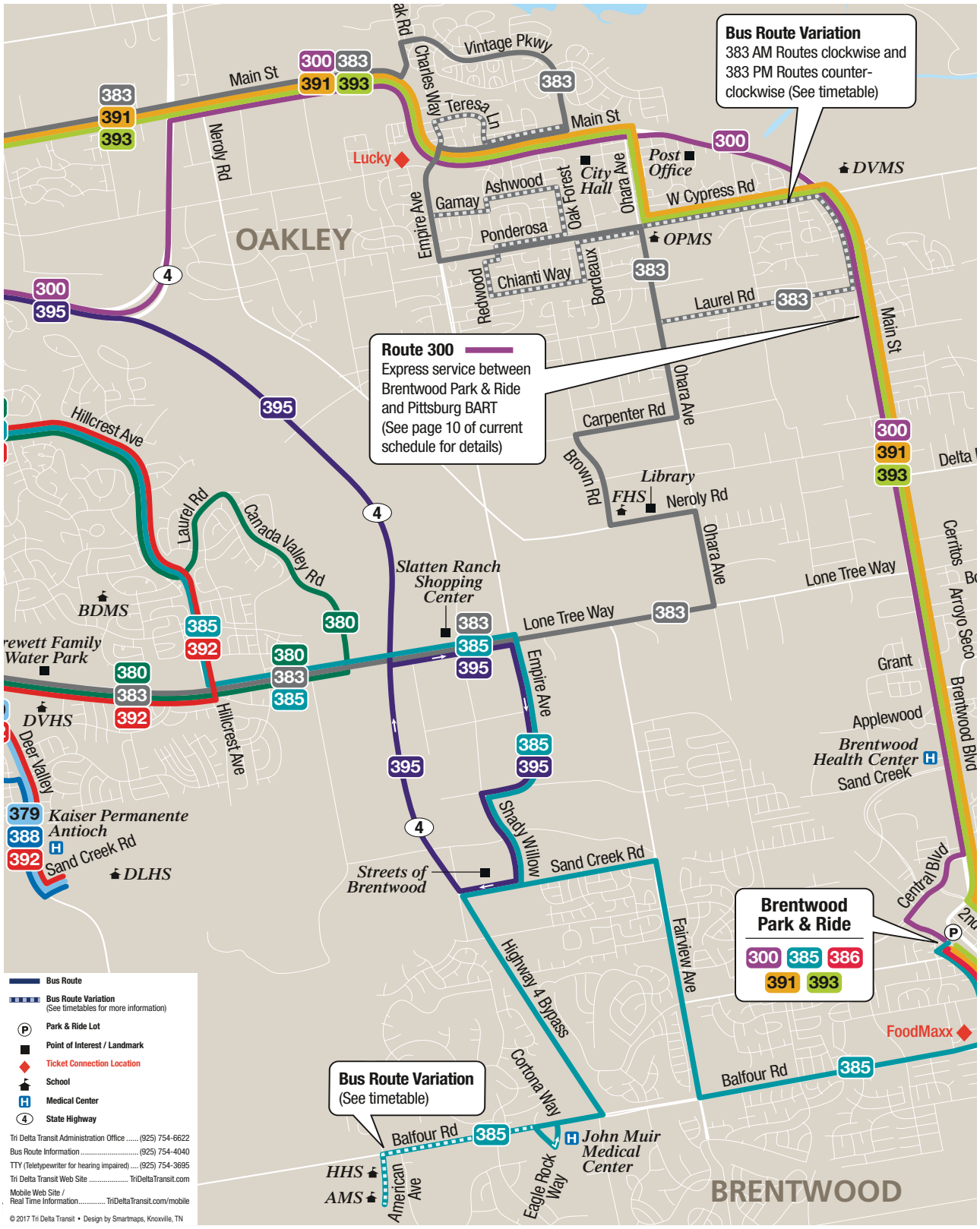
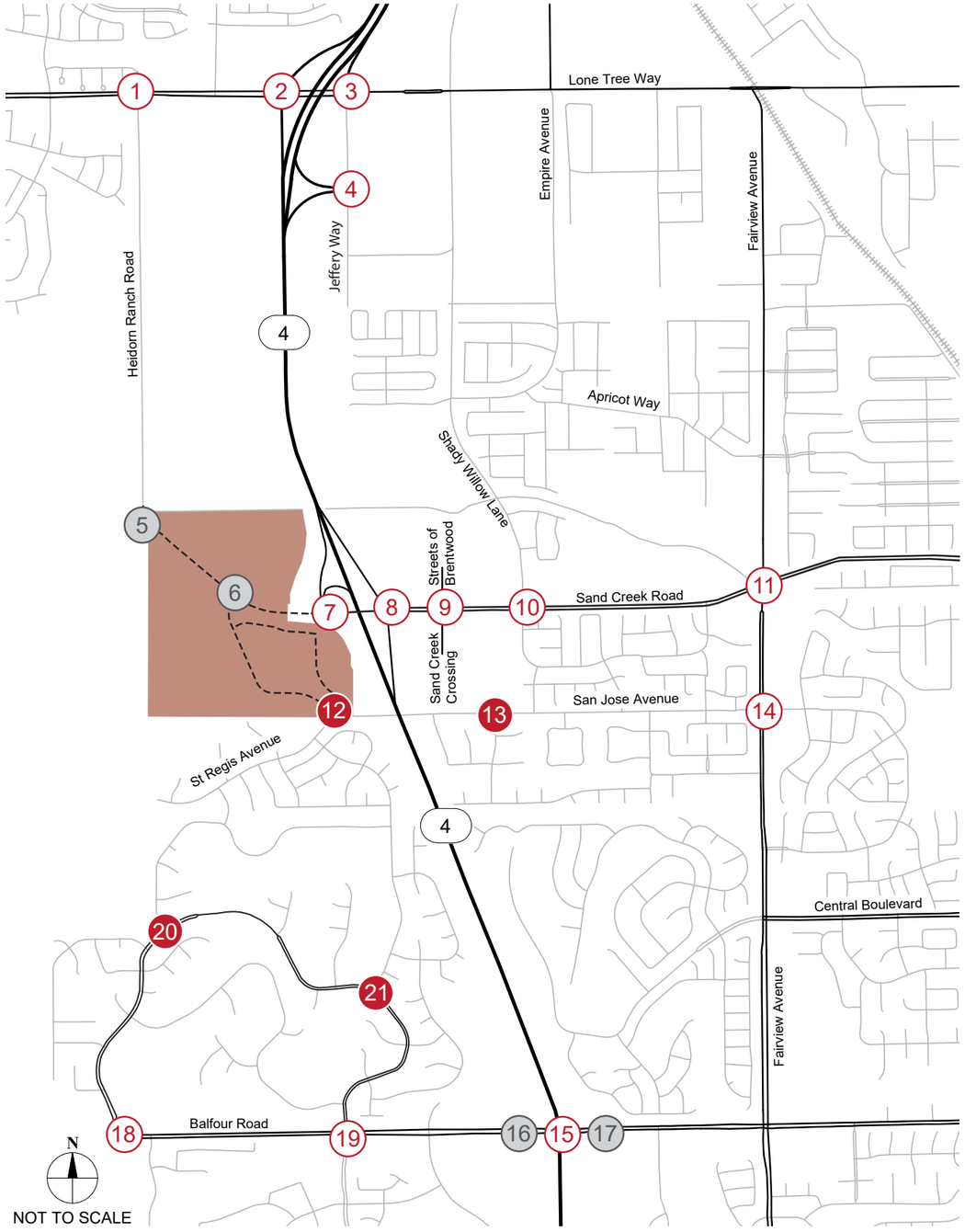


Figure 2-2
Existing Transit Facilities



1

	Fairside Way	Lone Tree Way
5 / 3	⇦	19 / 24
6 / 1	⇩	1089 / 1134
19 / 24	⇨	38 / 34
Heidorn Ranch Rd		
3 / 16	⇖	50 / 128
895 / 1287	⇧	2 / 4
65 / 108	⇗	41 / 77

2

	SR-4 EB Off-Ramp	Lone Tree Way
594 / 623	⇦	1107 / 1317
3 / 0	⇩	81 / 115
347 / 611	⇨	
SR-4 EB On-Ramp		
959 / 1532	⇖	
427 / 532	⇧	
	⇗	

3

	SR-4 WB On-Ramp	Lone Tree Way
	⇦	471 / 476
	⇧	766 / 935
	⇨	19 / 10
Jeffery Way		
1021 / 1726	⇖	430 / 515
285 / 408	⇩	25 / 35
	⇗	156 / 211

4

	Jeffery Way	
271 / 396	⇦	
4 / 3	⇩	
	⇨	
SR-4 WB Ramps		
578 / 705	⇖	
34 / 16	⇧	
	⇗	1 / 1
		3 / 3

5

Intersection does not exist under this scenario

6

Intersection does not exist under this scenario

7

	SR-4 SB Ramps	Sand Creek Rd
	⇦	77 / 81
856 / 1428	⇧	
	⇗	

8

	SR-4 NB On-Ramp	Sand Creek Rd
	⇦	866 / 871
	⇧	87 / 67
	⇨	
4 / 8	⇖	1 / 0
837 / 1432	⇩	1 / 0
SR-4 NB Off-Ramp	⇗	100 / 135

9

	Streets of Brentwood	Sand Creek Rd
66 / 176	⇦	87 / 123
20 / 59	⇩	738 / 569
45 / 102	⇨	42 / 107
Sand Creek Crossing		
84 / 258	⇖	145 / 174
730 / 1040	⇧	36 / 52
118 / 262	⇗	36 / 89

10

	Shady Willow Ln	Sand Creek Rd
80 / 98	⇦	141 / 134
89 / 105	⇩	760 / 723
152 / 200	⇨	22 / 20
Highland Way		
81 / 139	⇖	84 / 44
696 / 1152	⇧	71 / 78
55 / 67	⇗	19 / 7

11

	Fairview Ave	Sand Creek Rd
39 / 34	⇦	56 / 76
320 / 324	⇩	634 / 584
83 / 130	⇨	183 / 131
21 / 84	⇖	339 / 295
631 / 840	⇧	269 / 282
238 / 427	⇗	204 / 149

12

		San Jose Ave
		⇦ 432 / 344
St. Regis Ave		
		⇖ 288 / 275

13

	Dwy	San Jose Ave
28 / 0	⇦	1 / 11
2 / 3	⇩	389 / 279
78 / 6	⇨	15 / 39
0 / 3	⇖	34 / 5
359 / 213	⇧	
7 / 6	⇗	24 / 12
Portofino Drive		

14

	Fairview Ave	San Jose Ave
126 / 79	⇦	91 / 68
561 / 679	⇩	81 / 16
54 / 92	⇨	48 / 17
136 / 92	⇖	151 / 170
52 / 22	⇧	554 / 528
171 / 149	⇗	18 / 38

15

	SR-4	Balfour Rd
389 / 87	⇦	455 / 161
674 / 894	⇩	807 / 635
282 / 185	⇨	77 / 447
514 / 33	⇖	155 / 440
701 / 563	⇧	647 / 610
267 / 390	⇗	36 / 309

16

Intersection does not exist under this scenario

17

Intersection does not exist under this scenario

18

	W Country Club Dr	Balfour Rd
6 / 19	⇦	91 / 97
471 / 103	⇧	418 / 235
71 / 98	⇨	791 / 212
American Ave		
13 / 41	⇖	123 / 30
218 / 358	⇧	213 / 90
354 / 25	⇗	728 / 192

19

	E Country Club Dr	Balfour Rd
252 / 23	⇦	49 / 144
114 / 45	⇧	916 / 517
189 / 95	⇨	44 / 119
Foothill Dr		
53 / 21	⇖	210 / 35
859 / 584	⇧	87 / 26
121 / 48	⇗	81 / 58

20

	Presidio Drive	W Country Club Dr
270 / 154	⇦	5 / 5
11 / 10	⇧	29 / 21
9 / 3	⇨	4 / 1
96 / 135	⇖	3 / 3
23 / 30	⇧	5 / 7
	⇗	3 / 2

21

	Roundhill Dr	E Country Club Dr
12 / 20	⇦	102 / 92
135 / 91	⇧	31 / 32
	⇨	
21 / 27	⇖	
71 / 24	⇩	
	⇗	

Legend:

- (X) Signalized
- X Unsignalized
- (X) Does Not Exist
- X/Y AM/ PM Peak Hour Turning Volume
- --- Project Road
- Project Site

NOT TO SCALE

Figure 2-3
Existing Conditions Peak Hour Turning Movement Volumes

Table 2–1 Existing Conditions Intersection LOS Summary

#	Intersection	Traffic Control	Peak Hour	Delay (a)	LOS
1	Lone Tree Way / Heidorn Ranch Road/Fairside Way	Signal	AM	10.9	B
			PM	12.5	B
2	Lone Tree Way / SR-4 SB Ramps	Signal	AM	43.2	D
			PM	35.1	D
3	Lone Tree Way / Jeffrey Way/SR-4 NB Entrance Ramp	Signal	AM	19.8	B
			PM	13.4	B
4	Jeffrey Way / SR-4 NB Ramps	Signal	AM	10.6	B
			PM	13.0	B
5	Sand Creek Road / Heidorn Ranch Road (Future	SSSC	AM	*Intersection does not exist in this scenario*	
			PM		
6	Sand Creek Road / San Jose Avenue (Future)	Signal	AM	*Intersection does not exist in this scenario*	
			PM		
7	Sand Creek Road / SR-4 SB Ramps	Signal	AM	3.5	A
			PM	3.6	A
8	Sand Creek Road / SR-4 NB Ramps	Signal	AM	16.7	B
			PM	9.7	A
9	Sand Creek Road / Sand Creek Crossing/Streets of Brentwood	Signal	AM	16.7	B
			PM	23.7	C
10	Sand Creek Road / Shady Willow Lane/Highland Way	Signal	AM	16.8	B
			PM	20.8	C
11	Sand Creek Road / Fairview Avenue	Signal	AM	52.1	D
			PM	42.3	D
12	San Jose Avenue / St. Regis Avenue	SSSC	AM	0.0	A
			PM	0.0	A
13	San Jose Avenue / Portofino Drive	SSSC	AM	15.3	C
			PM	9.8	A
14	San Jose Avenue/ Fairview Avenue	Signal	AM	65.8	**E**
			PM	56.4	**E**
15	Balfour Road / SR-4	Signal	AM	41.9	D
			PM	107.2	**F**
16	Balfour Road / SR-4 SB Ramps (Future)	Signal	AM	*Intersection does not exist in this scenario*	
			PM		
17	Balfour Road / SR-4 NB Ramps (Future)	Signal	AM	*Intersection does not exist in this scenario*	
			PM		
18	Balfour Road / American Avenue / West Country Club Drive	Signal	AM	75.8	**E**
			PM	15.4	B
19	Balfour Road / Foothill Drive / E Country Club Drive	Signal	AM	30.5	C
			PM	14.6	B
20	West Country Club / Presidio Drive	AWSC	AM	11.5	B
			PM	8.5	A
21	East Country Club / Roundhill Drive	AWSC	AM	8.8	A
			PM	7.8	A

Notes: Signal = Traffic Signal, SSSC = Side Street Stop Control, AWSC = All Way Stop Control. **Bold** indicates substandard per jurisdiction minimum thresholds.

(a) Delay is measured in seconds.

Table 2–2 Existing Conditions Routes of Regional Significance Travel Time Summary

Facility	Direction	Travel Time (a)	Free-Flow Time (a)	Delay Index
AM Peak				
SR-4				
North of Lone Tree Way (Basic)	NB	11.4	11.4	1.00
	SB	14.8	14.8	1.00
Lone Tree Way NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	18.7	17.0	1.10
	SB	19.7	17.0	1.16
Jeffery Way NB On-Ramp (Merge)	NB	18.5	17.0	1.09
Lone Tree Way/ Jeffery Way NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	19.5	17.0	1.15
	SB	18.5	17.0	1.09
Lone Tree Way to Sand Creek Road (Basic)	NB	3.4	3.4	1.00
	SB	9.7	9.7	1.00
Sand Creek Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	18.8	17.0	1.10
	SB	19.7	17.0	1.15
Sand Creek Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	19.2	17.0	1.13
	SB	18.3	17.0	1.07
Sand Creek Road to Balfour Road (Basic)	NB	31.8	31.8	1.00
	SB	30.1	30.1	1.00
PM Peak				
SR-4				
North of Lone Tree Way (Basic)	NB	11.4	11.4	1.00
	SB	14.8	14.8	1.00
Lone Tree Way NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	18.5	17.0	1.08
	SB	19.6	17.0	1.15
Jeffery Way NB On-Ramp (Merge)	NB	18.4	17.0	1.08
Lone Tree Way/ Jeffery Way NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	19.6	17.0	1.15
	SB	18.3	17.0	1.07
Lone Tree Way to Sand Creek Road (Basic)	NB	3.5	3.4	1.02
	SB	9.7	9.7	1.00
Sand Creek Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	18.7	17.0	1.09
	SB	19.2	17.0	1.13
Sand Creek Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	19.2	17.0	1.13
	SB	18.7	17.0	1.09
Sand Creek Road to Balfour Road (Basic)	NB	31.9	31.8	1.00
	SB	30.1	30.1	1.00

Bold indicates a segment with a delay index greater than the allowable threshold of 2.5.

(a) Travel Time and Free-Flow Time are measured in seconds

Results were obtained using HCM freeway facility level of service analysis. The travel time is calculated using the average travel speed or free flow speed and segment length.

3 TRAFFIC IMPACT ANALYSIS

The following section describes the trip generation, distribution and assignment related to the proposed project.

3.1 PROJECT TRIP GENERATION

Trip generation for development projects is typically calculated based on information contained in the most recent edition of the Institute of Transportation Engineer's (ITE) publication, *Trip Generation Manual*[3]. The Trip Generation Manual is a standard reference used by jurisdictions throughout the country for the estimation of trip generation potential of proposed developments. A trip is defined in the Trip Generation Manual as a single or one-directional vehicle movement with either the origin or destination at the project site. In other words, a trip can be either "to" or "from" the site. As a result, a single customer visit to a site is counted as two trips (i.e., one to and one from the site).

For purposes of determining the worst-case impacts of traffic on the surrounding street network, the trips generated by a proposed development are typically estimated between the hours of 7:00-9:00 AM and 4:00-6:00 PM on a weekday. While the project itself may generate more traffic during some other time of the day or week, the peak of "adjacent street traffic" represents the time period when the uses generally contribute to the greatest amount of congestion, with the PM peak commonly being the greatest congestion period.

The proposed development is most appropriately classified as categories defined by ITE: Shopping Center (ITE Land Use 820), Single-Family Detached Housing (ITE Land Use 210), Apartment (ITE Land Use 220), and Elementary School (ITE Land Use 520). Trip generation calculations were performed based on gross floor area of the shopping center land use, the number of units for the housing land use, and the number of students for the school land use.

Internal capture reductions were considered to account for the interaction of separate uses within a multi-use development. A key characteristic of such development is that trips among the various land uses can be made on-site, thus resulting in internal trips that would not affect the offsite roadway network. Internal capture calculations were conducted following ITE methodologies contained in the Trip Generation Manual for the proposed development during the AM peak hour, PM peak hour, and daily periods. However, the Caltrans *Guide for the Preparation of Traffic Impact Studies*[4] accepts a maximum internal capture rate of five percent. Therefore, for the purposes of this study, a conservative internal capture rate of five percent was used. The internal capture reduction was applied to the Apartment and Shopping Center land uses to reflect the interactions between the shopping center and housing units in the northern portion of the site.

Pass-by trip reductions are typically considered to account for trips that will already be on the road and will likely stop as they pass by the site. Data published in ITE's Trip Generation Manual indicates that a Shopping Center land use has an average PM pass-by rate of 29 percent. No pass-by rate is provided for the AM peak hour because shopping centers are typically not open during the AM peak. No pass-by reductions are appropriate for a housing development. The Caltrans Guide for the Preparation of Traffic

[3] *Trip Generation Manual*, 9th Edition, Institute of Transportation Engineers, 2012.

[4] *Guide for the Preparation of Traffic Impact Studies*, Caltrans, December 2002.

Impact Studies accepts a maximum pass-by rate of 15 percent; therefore, a pass-by reduction of 15 percent was used for the Shopping Center in the PM peak.

Net trip generation for the two development scenarios for the proposed project are presented in **Table 3-1** and **Table 3-2**.

Table 3–1 Project Trip Generation for Development Scenario 1

Land Use	ITE Code	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
Apartment	220	258 units	1,688	130	26	104	160	104	56
Shopping Center	820	199.9 ksf	10,656	238	147	91	953	457	496
Single-Family Detached Housing	210	328 units	3,102	239	60	179	306	193	113
Subtotal Trips			*15,446*	*607*	*233*	*374*	*1,419*	*754*	*665*
Internal Trip Reduction[1]		5%	-617	-18	-8	-10	-56	-28	-28
Subtotal New Trips			***14,829***	***589***	***225***	***364***	***1,363***	***726***	***637***
Pass-By Trip Reduction[2]		15%					-143	-69	-74
Net New External Trips			*14,829*	*589*	*225*	*364*	*1,220*	*657*	*563*

Notes: ksf = thousand square feet
Source: *Trip Generation Manual, 9th Edition,* ITE.
1. Per Caltrans *Guide for the Preparation of traffic Impact Studies*. Applied to Daily/AM/PM trips for Apartment and Shopping Center uses.
2. Per Caltrans *Guide for the Preparation of traffic Impact Studies*. Applied to PM trips for Shopping Center land use only.

As shown in the table, under Development Scenario 1, the proposed project is expected to generate a net 14,829 new daily trips, with 589 trips (225 in, 364 out) in the morning peak hour, and 1,220 trips (657 in, 563 out) in the afternoon peak hour.

Table 3–2 Project Trip Generation for Development Scenario 2

Land Use	ITE Code	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
Apartment	220	258 units	1,688	130	26	104	160	104	56
Shopping Center	820	199.9 ksf	10,656	238	147	91	953	457	496
Single-Family Detached Housing	210	265 units	2,550	195	49	146	253	159	94
Elementary School	520	900 st	1,162	405	223	182	135	66	69
Subtotal Trips			*16,056*	*968*	*445*	*523*	*1,501*	*786*	*715*
Internal Trip Reduction[1]		5%	-617	-18	-8	-10	-56	-28	-28
Subtotal New Trips			***15,439***	***950***	***437***	***513***	***1,445***	***758***	***687***
Pass-By Trip Reduction[2]		15%					-143	-69	-74
Net New External Trips			*15,439*	*950*	*437*	*513*	*1,302*	*689*	*613*

Notes: ksf = thousand square feet, st = students
Source: *Trip Generation Manual, 9th Edition,* ITE.
1. Per Caltrans *Guide for the Preparation of traffic Impact Studies*. Applied to Daily/AM/PM trips for Apartment and Shopping Center uses.
2. Per Caltrans *Guide for the Preparation of traffic Impact Studies*. Applied to PM trips for Shopping Center land use only.

As shown in the table, under Development Scenario 2, the proposed project is expected to generate a net 15,439 new daily trips, with 950 trips (437 in, 513 out) in the morning peak hour, and 1,302 trips (689 in, 613 out) in the afternoon peak hour.

3.2 PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

Project distribution was developed based on existing traffic count information, general orientation of population sources to the site, and information obtained from the CCTA travel forecast model. **Figure 3-1** presents the traffic distribution assumed under Existing Conditions. There are different distribution patterns for existing, opening year and cumulative conditions, as the surrounding area would experience changes in land use and roadway networks between existing and cumulative scenarios. Additional project distribution information is provided in **Appendix C**.

Based on the assumed trip distribution, new vehicle trips generated by the project were assigned to the street network. The project generated traffic volumes for the two development scenarios under Existing Conditions are shown in **Figure 3-2** and **Figure 3-3**. These figures represent total trips on the network, including pass-by and internal capture reductions.

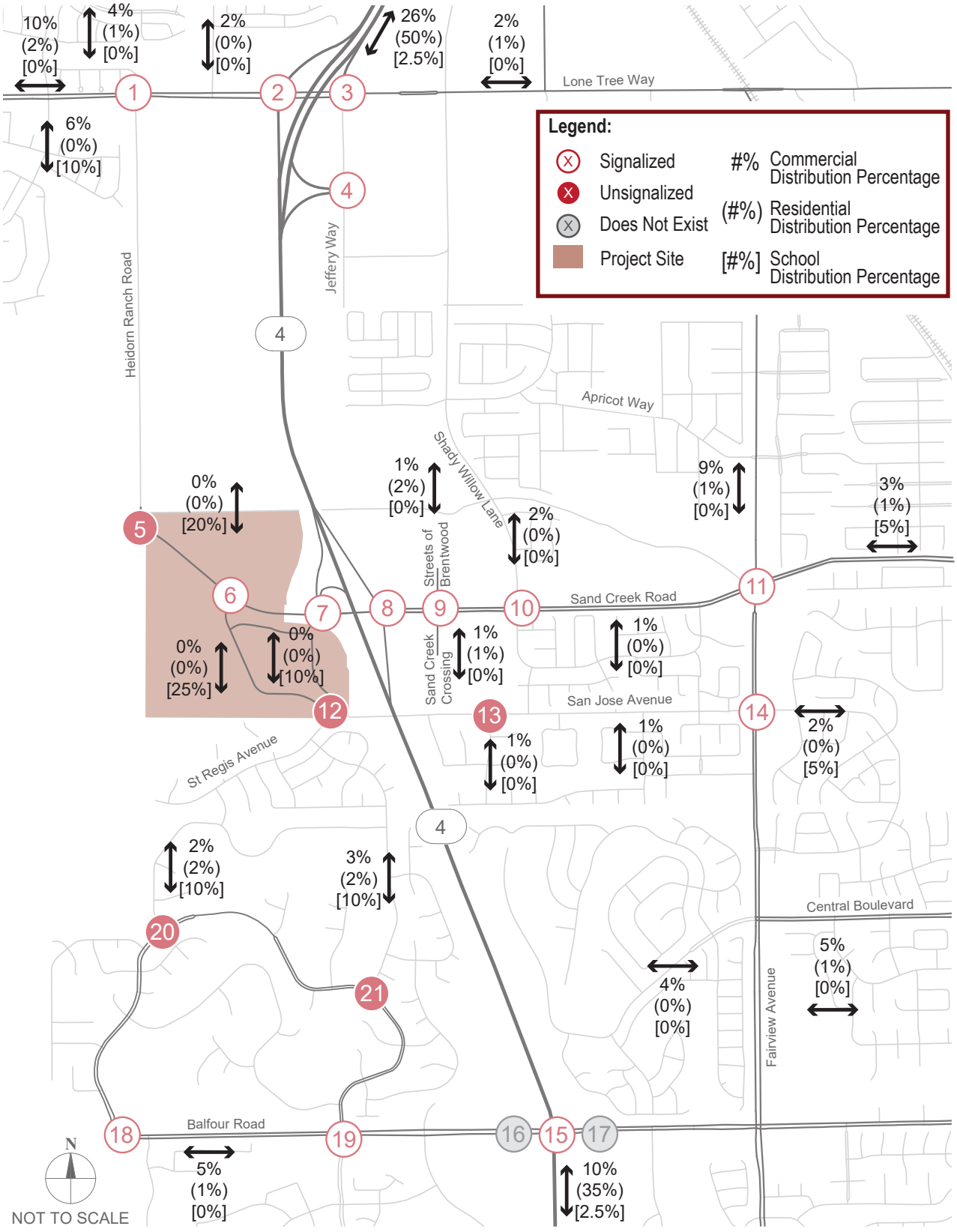
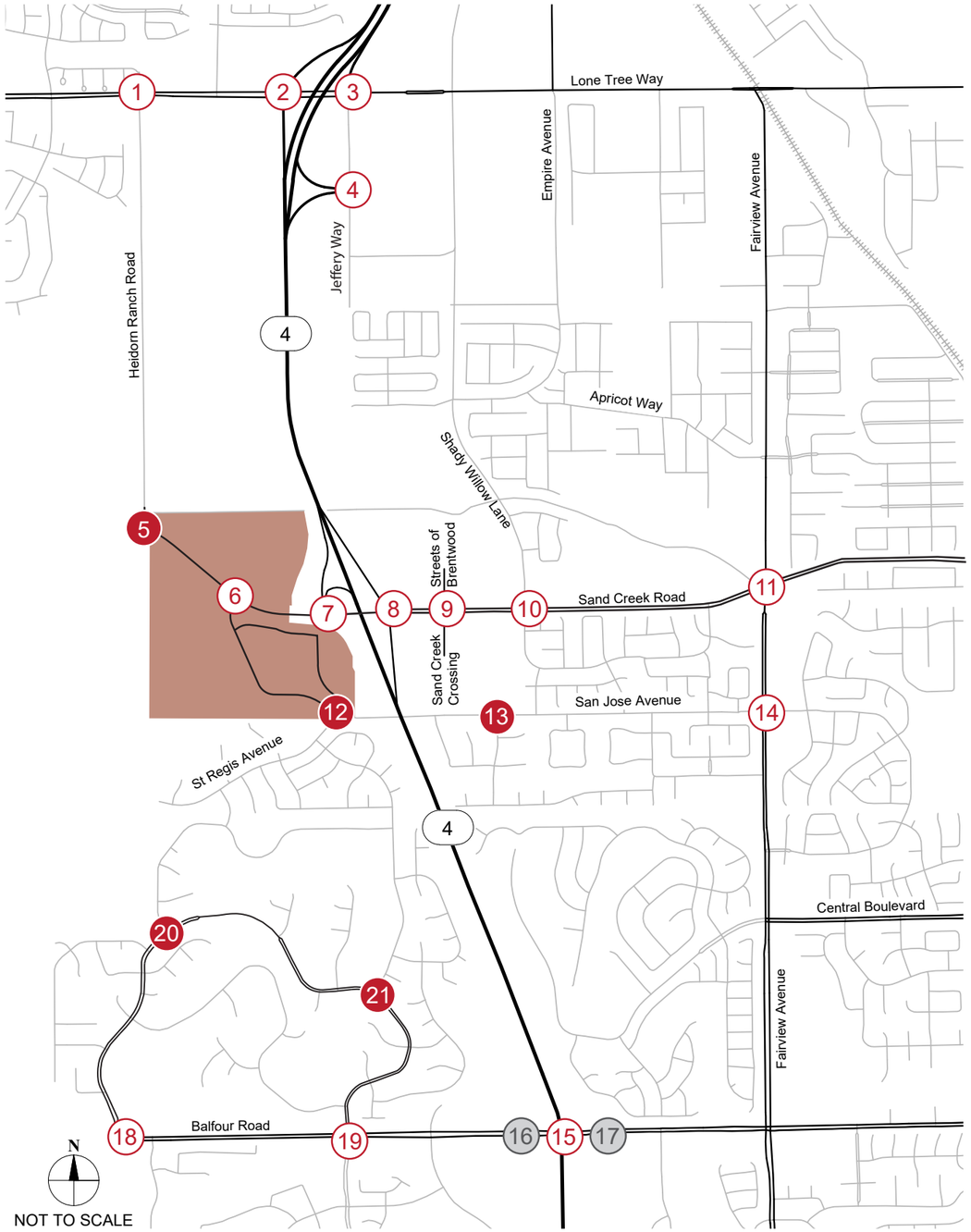


Figure 3-1
Project Trip Distribution (Existing)



1

	Fairside Way ⇦	17 / 45 ⇦ Lone Tree Way
17 / 46 ⇨ 14 / 37 ⇩	Heidorn Ranch Rd ⇩ ⇨	9 /40 ⇨

2

	SR-4 EB Off-Ramp ⇦	18 / 53 ⇦ 4 / 10 ⇖ Lone Tree Way
20 / 53 ⇩	SR-4 EB On-Ramp ⇩	

3

	SR-4 WB On-Ramp ⇦	4 / 10 ⇦ Lone Tree Way
	Jeffery Way ⇨ ⇩	18 /53 ⇨ 5 / 10 ⇩

4

	Jeffery Way ⇦	
SR-4 WB Ramps ⇨		

5

	14 /37 ⇩ Heidorn Ranch Rd ⇦	9 / 40 ⇦ Sand Creek Rd

6

	9 /40 ⇨ 28 /118 ⇦ 118 /355 ⇩ San Jose Ave	131 / 431 ⇦ 59 / 135 ⇖ Sand Creek Rd
14 / 37 ⇨		15 /40 ⇧ 145 /116 ⇦

7

	102 /304 ⇦ SR-4 SB Ramps	89 / 263 ⇧ Sand Creek Rd
85 / 120 ⇦ 177 / 352 ⇨		

8

	SR-4 NB On-Ramp ⇧	38 / 103 ⇧ Sand Creek Rd
144 / 249 ⇦ 35 / 103 ⇩	SR-4 NB Off-Ramp ⇩	51 / 160 ⇩

9

3 / 10 ⇦	Streets of Brentwood ⇧	34 / 90 ⇧ Sand Creek Rd
7 / 7 ⇨ 26 / 94 ⇩ 3 / 2 ⇦	Sand Creek Crossing ⇩ ⇦	1 / 3 ⇩

10

3 / 7 ⇦	Shady Willow Ln ⇧	30 / 79 ⇧ Sand Creek Rd
2 / 8 ⇨ 23 / 82 ⇩ 1 / 4 ⇦	Highland Way ⇩ ⇦	1 / 4 ⇩

11

14 / 36 ⇦	Fairview Ave ⇧	5 / 14 ⇧ Sand Creek Rd
11 / 38 ⇨ 6 / 14 ⇩ 6 / 28 ⇦		10 / 26 ⇩

12

42 / 25 ⇦ 25 / 7 ⇩ 3 / 2 ⇦	St. Regis Ave ⇩ ⇦	1 / 3 ⇦ 8 / 22 ⇧ San Jose Ave
13 / 44 ⇦ 5 / 24 ⇩ 60 / 20 ⇦		7 / 18 ⇩ 3 / 12 ⇨

13

	Dwy ⇧	8 / 21 ⇧ San Jose Ave
7 / 22 ⇦ 1 / 4 ⇩	Portofino Drive ⇩	1 / 4 ⇨

14

5 / 24 ⇦ 1 / 4 ⇩	Fairview Ave ⇩	1 / 4 ⇦ 1 / 4 ⇦ San Jose Ave
1 / 4 ⇨ 6 / 14 ⇩		5 / 14 ⇧ 8 / 22 ⇦

15

7 / 22 ⇦ 79 / 98 ⇩	SR-4 ⇩	Balfour Rd ⇧
50 / 21 ⇦ 28 / 0 ⇩		44 / 139 ⇧

16

Intersection does not exist under this scenario

17

Intersection does not exist under this scenario

18

1 / 4 ⇦ 42 / 0 ⇩	W Country Club Dr ⇩	8 / 26 ⇦ 28 / 0 ⇦ Balfour Rd
1 / 4 ⇨ 9 / 25 ⇩	American Ave ⇩	70 / 0 ⇧

19

29 / 4 ⇦	E Country Club Dr ⇧	7 / 22 ⇧ Balfour Rd
1 / 4 ⇨ 77 / 21 ⇩	Foothill Dr ⇩	

20

18 / 6 ⇦	Presidio Drive ⇧	28 / 0 ⇧ W Country Club Dr
2 / 7 ⇨		

21

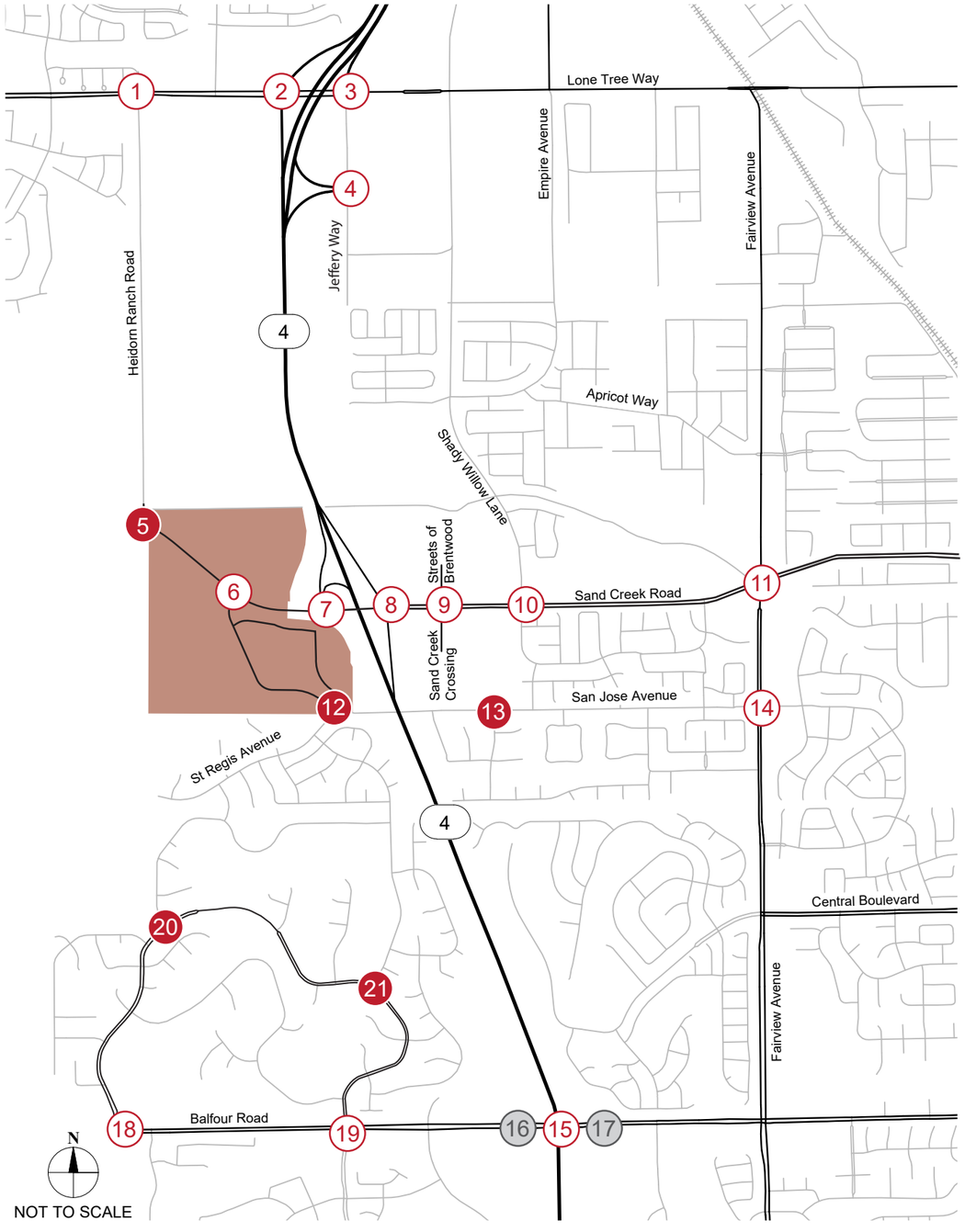
28 / 0 ⇦ 32 / 6 ⇩	Roundhill Dr ⇩	2 / 7 ⇩ E Country Club Dr

Legend:

- Signalized
- Unsignalized
- Does Not Exist
- X/Y AM/ PM Peak Hour Turning Volume
- Project Road
- Project Site

NOT TO SCALE

Figure 3-2
Total Project Generated Traffic Volumes for Development Scenario 1 (Existing Conditions)



1

	Fairside Way ⇧	16 / 44 ⇧ Lone Tree Way
16 / 45 ⇩ 14 / 37 ⇧	Heidorn Ranch Rd ⇩ ⇧	9 / 40 ⇩ ⇧

2

	SR-4 EB Off-Ramp ⇧	17 / 52 ⇧ 4 / 10 ⇧ Lone Tree Way
19 / 52 ⇧	SR-4 EB On-Ramp ⇧	

3

	SR-4 WB On-Ramp ⇧	4 / 10 ⇧ Lone Tree Way
	Jeffery Way ⇩ ⇧	17 / 52 ⇩ 4 / 9 ⇧

4

	Jeffery Way ⇧	
SR-4 WB Ramps ⇩	⇧	22 / 62 ⇧

5

36 / 44 ⇩	Heidorn Ranch Rd ⇧	27 / 47 ⇧ Sand Creek Rd

6

9 / 40 ⇩ 71 / 131 ⇩ 112 / 351 ⇧	San Jose Ave ⇩ ⇧	128 / 422 ⇧ 74 / 118 ⇧ Sand Creek Rd
14 / 37 ⇩ 22 / 7 ⇧	⇩ ⇧	18 / 7 ⇩ 51 / 54 ⇧ 145 / 109 ⇧

7

102 / 287 ⇩	SR-4 SB Ramps ⇩	101 / 254 ⇧ Sand Creek Rd
82 / 115 ⇩ 177 / 345 ⇩	⇩ ⇩	

8

	SR-4 NB On-Ramp ⇩	49 / 104 ⇧ Sand Creek Rd
136 / 240 ⇩ 42 / 105 ⇩	SR-4 NB Off-Ramp ⇩ ⇩	54 / 150 ⇩

9

2 / 9 ⇩	Streets of Brentwood ⇩	44 / 92 ⇧ Sand Creek Rd
6 / 7 ⇩ 34 / 97 ⇧ 2 / 1 ⇧	Sand Creek Crossing ⇩ ⇧ ⇧	1 / 3 ⇩

10

3 / 7 ⇩	Shady Willow Ln ⇩	40 / 81 ⇧ Sand Creek Rd
2 / 8 ⇩ 31 / 85 ⇧ 1 / 4 ⇧	Highland Way ⇩ ⇧ ⇧	1 / 4 ⇩

11

14 / 36 ⇩	Fairview Ave ⇩	9 / 15 ⇧ Sand Creek Rd
10 / 37 ⇩ 9 / 14 ⇧ 6 / 28 ⇧	⇩ ⇧ ⇧	10 / 26 ⇩

12

37 / 22 ⇩ 58 / 20 ⇩ 11 / 4 ⇧	St. Regis Ave ⇩ ⇩ ⇧	12 / 6 ⇩ 8 / 22 ⇧ San Jose Ave
11 / 39 ⇩ 5 / 24 ⇧ 53 / 20 ⇧	⇩ ⇧ ⇧	7 / 18 ⇩ 48 / 23 ⇧

13

	Dwy ⇧	19 / 24 ⇧ San Jose Ave
15 / 24 ⇩ 1 / 4 ⇧	Portofino Drive ⇩ ⇧	1 / 4 ⇩

14

5 / 24 ⇩ 1 / 4 ⇧	Fairview Ave ⇩ ⇧	1 / 4 ⇧ 5 / 5 ⇧ San Jose Ave
5 / 5 ⇩ 5 / 13 ⇧	⇩ ⇧	5 / 14 ⇩ 8 / 22 ⇧

15

6 / 21 ⇩ 75 / 93 ⇩	SR-4 ⇩ ⇩	Balfour Rd ⇧
45 / 21 ⇩ 25 / 0 ⇩	⇩ ⇩	46 / 129 ⇧

16

Intersection does not exist under this scenario

17

Intersection does not exist under this scenario

18

1 / 4 ⇩ 37 / 0 ⇩	W Country Club Dr ⇩ ⇩	7 / 25 ⇧ 25 / 0 ⇧ Balfour Rd
1 / 4 ⇩ 9 / 25 ⇧	American Ave ⇩ ⇧	61 / 0 ⇧

19

26 / 4 ⇩	E Country Club Dr ⇩	6 / 21 ⇧ Balfour Rd
1 / 4 ⇩ 69 / 21 ⇧	Foothill Dr ⇩ ⇧	

20

25 / 8 ⇩	Presidio Drive ⇩	25 / 0 ⇧ W Country Club Dr
13 / 10 ⇩	⇩	

21

25 / 0 ⇩ 37 / 8 ⇧	Roundhill Dr ⇩ ⇧	13 / 10 ⇩ E Country Club Dr

Legend:

- (X) Signalized
- X Unsignalized
- (X) Does Not Exist
- X/Y AM/ PM Peak Hour Turning Volume
- --- Project Road
- Project Site

NOT TO SCALE

Figure 3-3

Total Project Generated Traffic Volumes for Development Scenario 2 (Existing Conditions)

3.3 PLANNED ROADWAY PROJECTS IN VICINITY OF SITE

As part of the proposed project, Sand Creek Road will be extended to the west and connect with Heidorn Ranch Road, and San Jose Avenue will be extended west and new intersections will be created within the project site. The planned project improvements are illustrated in the site plan shown in **Figure 1-2**.

Figure 3-4 illustrates the intersection geometry and traffic control assumed under Existing plus Project Conditions.

3.4 EXISTING PLUS PROJECT LOS AT STUDY INTERSECTIONS

Existing plus Project Conditions peak hour volumes were evaluated at the study intersections under both development scenarios and are presented in **Figure 3-5** and **Figure 3-6**. Results of the analysis are presented in **Table 3-3**. Locations operating unacceptably are bolded. As shown in the table, the following intersections would operate below acceptable LOS under Existing plus Project Conditions:

Development Scenario 1

- #14 – Fairview Avenue at San Jose Avenue
    - AM (Increased delay, LOS E) and PM (Increased delay, LOS E) Peaks – Significant Impact
- #15 – SR-4 and Balfour Road
    - PM (Increased delay, LOS F) Peak – Significant Impact
- #18 – W Country Club Drive/ American Avenue at Balfour Road
    - AM (Increased delay, LOS F) – Significant Impact

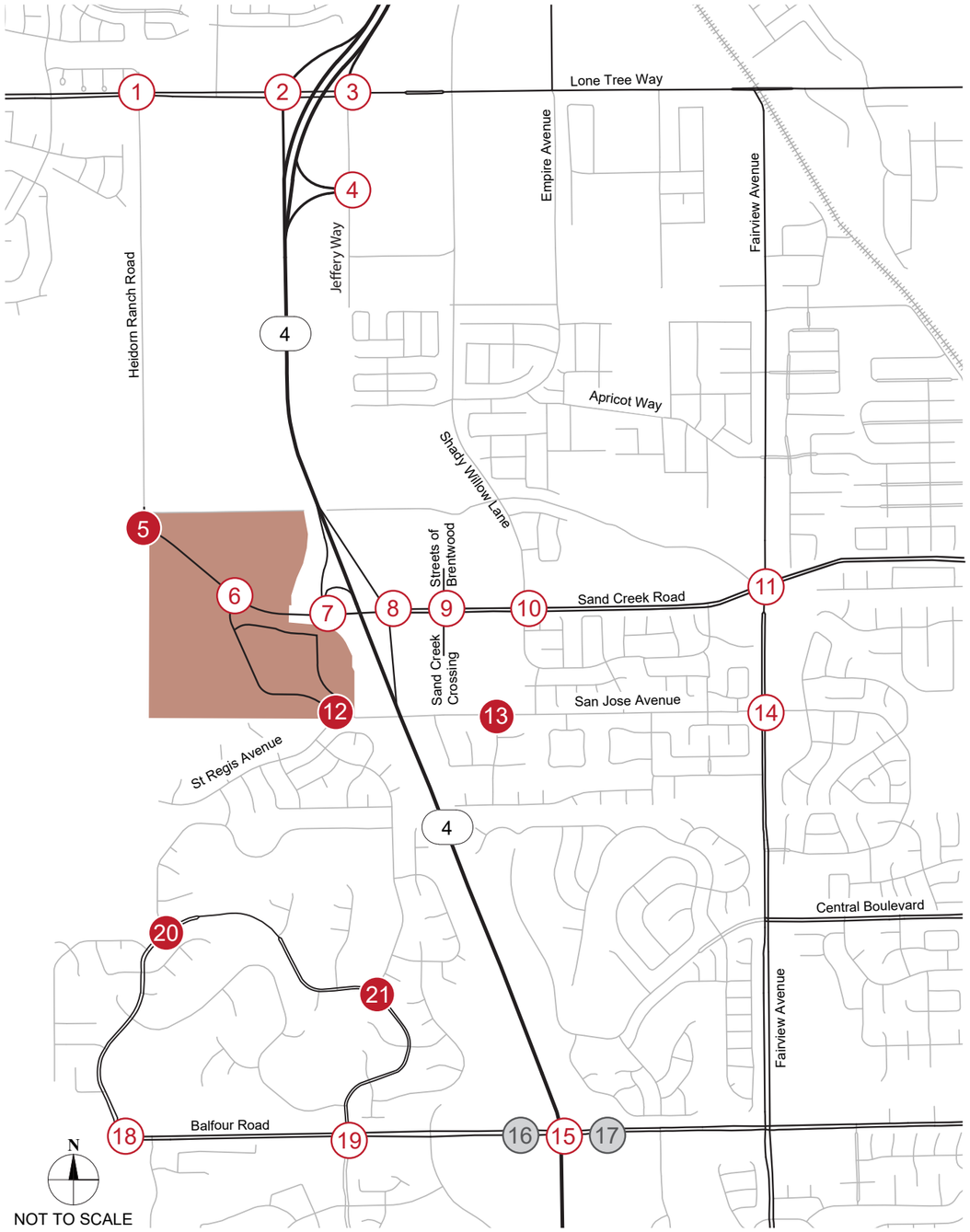
Development Scenario 2

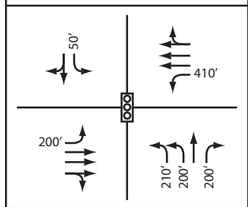
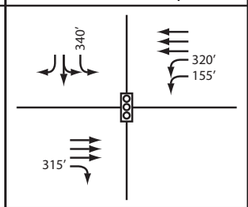
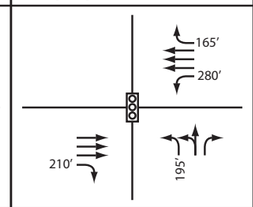
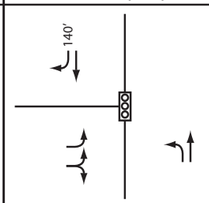
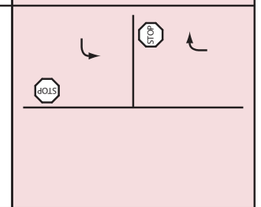
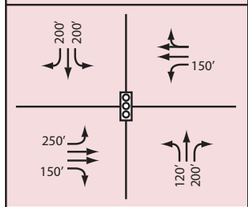
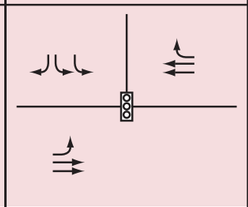
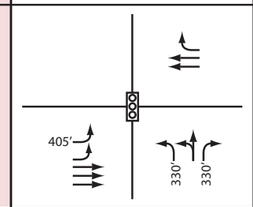
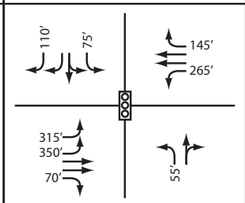
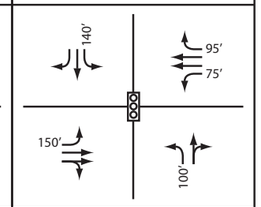
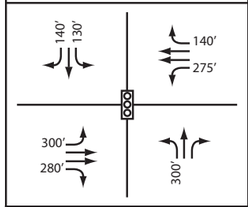
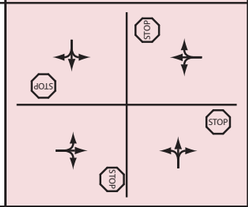
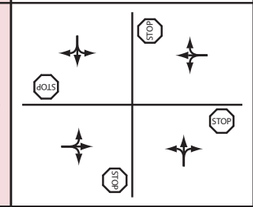
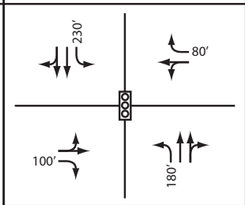
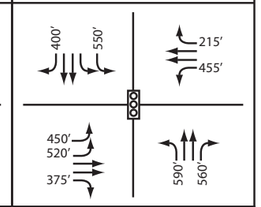
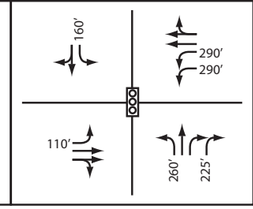
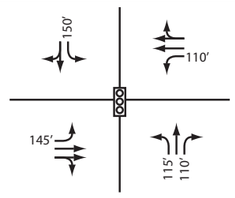
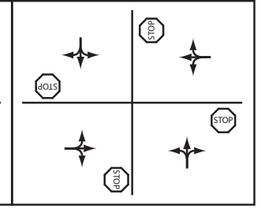
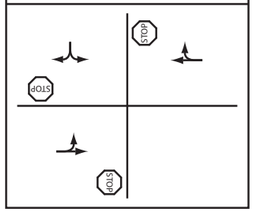
- #14 – Fairview Avenue at San Jose Avenue
    - AM (Increased delay, LOS E) and PM (Increased delay, LOS E) Peaks – Significant Impact
- #15 – SR-4 and Balfour Road
    - PM (Increased delay, LOS F) Peak – Significant Impact
- #18 – W Country Club Drive/ American Avenue at Balfour Road
    - AM (Increased delay, LOS F) – Significant Impact

Intersections #2 and #8 show a small decrease in delay with the addition of the proposed project during the AM peak hour. These intersections are freeway ramps and the proposed project adds traffic primarily to movements with a lower delay than other movements, this brings the average intersection delay down as a result of the increase volume. Intersection #18 also shows a small decrease in delay with the addition of the proposed project during the PM peak hour. At this intersection, the proposed project adds traffic primarily to Balfour Road through movements which have a lower delay than other movements, bringing the average intersection delay down as a result of the increase volume. Analysis sheets are provided in the **Appendix E**.

3.5 EXISTING PLUS PROJECT FREEWAY ANALYSIS

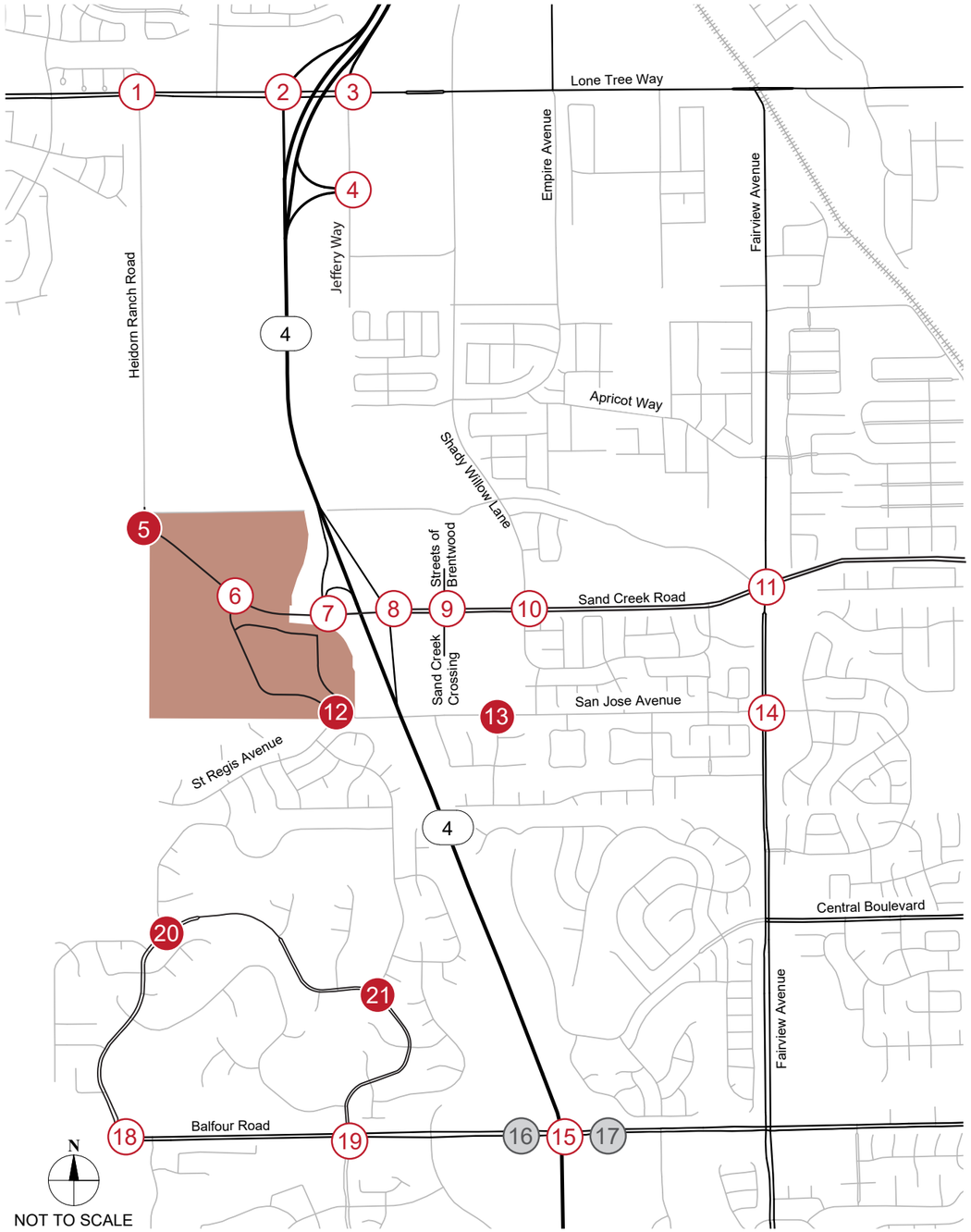
Traffic operations were evaluated at SR-4 under Existing plus Project Conditions. Results of the analysis are presented in **Table 3-4**. As shown in the Table, SR-4 between Lone Tree Way and Balfour Road would function within acceptable standards under Existing plus Project Conditions. Analysis sheets are provided in the **Appendix E.**



1. Lone Tree Wy/ Heidorn Ranch Rd/Fairside Wy	2. Lone Tree Wy/ SR-4 EB Ramps	3. Lone Tree Wy/ Jeffery Wy/SR-4 WB On-Ramp	4. SR-4 WB Ramps/ Jeffery Wy	5. Sand Creek Rd/ Heidorn Ranch Rd
				
6. Sand Creek Rd/ San Jose Ave	7. Sand Creek Rd/ SR-4 EB Ramps	8. Sand Creek Rd/ SR-4 WB Ramps	9. Sand Creek Rd/ Sand Creek Crossing	10. Sand Creek Rd/ Shady Willow Ln/Highland Wy
				
11. Sand Creek Rd/ Fairview Ave	12. San Jose Ave/ St. Regis Ave/Rose Wood Dr	13. San Jose Ave/ Portofino Dr	14. San Jose Ave/ Fairview Ave	15. Balfour Rd/ SR-4
				
16. Balfour Rd/ SR-4 EB Ramps	17. Balfour Rd/ SR-4 WB Ramps	18. Balfour Rd/ American Ave/W Country Club Dr	19. Balfour Rd/ Foothill Dr/E Country Club Dr	20. W Country Club Dr/ Presidio Dr
Intersection does not exist under this scenario	Intersection does not exist under this scenario			
21. E Country Club Dr/ Roundhill Dr				
				

Legend:
- Signalized
- Unsignalized
- Does Not Exist
- XX′ Storage Length
- Project Site

Figure 3-4
Existing Plus Project Lane Geometry and Traffic Control



1

	Fairside Way	
5 / 3		19 / 24
6 / 1		1106 / 1179
19 / 24		38 / 34
		Lone Tree Way
3 / 16	Heidorn Ranch Rd	59 / 168
912 / 1333		2 / 4
79 / 145		41 / 77

2

	SR-4 EB Off-Ramp	
594 / 623		1125 / 1370
3 / 0		85 / 125
347 / 611		Lone Tree Way
959 / 1532	SR-4 EB On-Ramp	
447 / 585		

3

	SR-4 WB On-Ramp	
		471 / 476
		770 / 945
		19 / 10
		Lone Tree Way
1021 / 1726	Jeffery Way	448 / 568
285 / 408		25 / 35
		161 / 221

4

271 / 396		
4 / 3		Jeffery Way
SR-4 WB Ramps		
601 / 768		
34 / 16		
		1 / 1
		3 / 3

5

14 / 37	Heidorn Ranch Rd	9 / 40
		Sand Creek Rd

6

9 / 40		131 / 431
28 / 118	San Jose Ave	59 / 135
118 / 355		Sand Creek Rd
14 / 37		15 / 40
		145 / 116

7

102 / 304		77 / 81
856 / 1428	SR-4 SB Ramps	89 / 263
		Sand Creek Rd
85 / 120		
177 / 352		

8

	SR-4 NB On-Ramp	866 / 871
		125 / 170
		Sand Creek Rd
148 / 257		
872 / 1535	SR-4 NB Off-Ramp	52 / 160
		1 / 0
		100 / 135

9

69 / 186		87 / 123
20 / 59	Streets of Brentwood	772 / 659
45 / 102		42 / 107
		Sand Creek Rd
91 / 265	Sand Creek Crossing	146 / 177
756 / 1134		36 / 52
121 / 264		36 / 89

10

83 / 105		141 / 134
89 / 105	Shady Willow Ln	790 / 802
152 / 200		22 / 20
		Sand Creek Rd
83 / 147	Highland Way	85 / 48
719 / 1234		71 / 78
56 / 71		19 / 7

11

53 / 70		56 / 76
320 / 324	Fairview Ave	639 / 598
83 / 130		183 / 131
		Sand Creek Rd
32 / 122		349 / 321
637 / 854		269 / 282
244 / 455		204 / 149

12

42 / 25		1 / 3
25 / 7	Rose Wood Dr	8 / 22
3 / 2		432 / 344
		San Jose Ave
13 / 44	St. Regis Ave	7 / 18
5 / 24		3 / 12
60 / 20		288 / 275

13

28 / 0		1 / 11
2 / 3	Dwy	397 / 300
78 / 6		15 / 39
		San Jose Ave
0 / 3	Portofino Drive	35 / 9
366 / 235		
8 / 10		24 / 12

14

126 / 79		92 / 72
566 / 703	Fairview Ave	82 / 20
55 / 96		48 / 17
		San Jose Ave
136 / 92		156 / 184
53 / 26		562 / 550
177 / 163		18 / 38

15

396 / 109		455 / 161
753 / 992	SR-4	807 / 635
282 / 185		77 / 447
		Balfour Rd
564 / 54		155 / 440
701 / 563		691 / 749
295 / 390		36 / 309

16

Intersection does not exist under this scenario

17

Intersection does not exist under this scenario

18

7 / 23		91 / 97
513 / 103	W Country Club Dr	426 / 261
71 / 98		819 / 212
		Balfour Rd
14 / 45	American Ave	123 / 30
227 / 383		213 / 90
354 / 25		798 / 192

19

281 / 27		49 / 144
114 / 45	E Country Club Dr	923 / 539
189 / 95		44 / 119
		Balfour Rd
54 / 25	Foothill Dr	210 / 35
936 / 605		87 / 26
121 / 48		81 / 58

20

288 / 160		5 / 5
11 / 10	Presidio Drive	57 / 21
9 / 3		4 / 1
		W Country Club Dr
98 / 142		3 / 3
23 / 30		5 / 7
		3 / 2

21

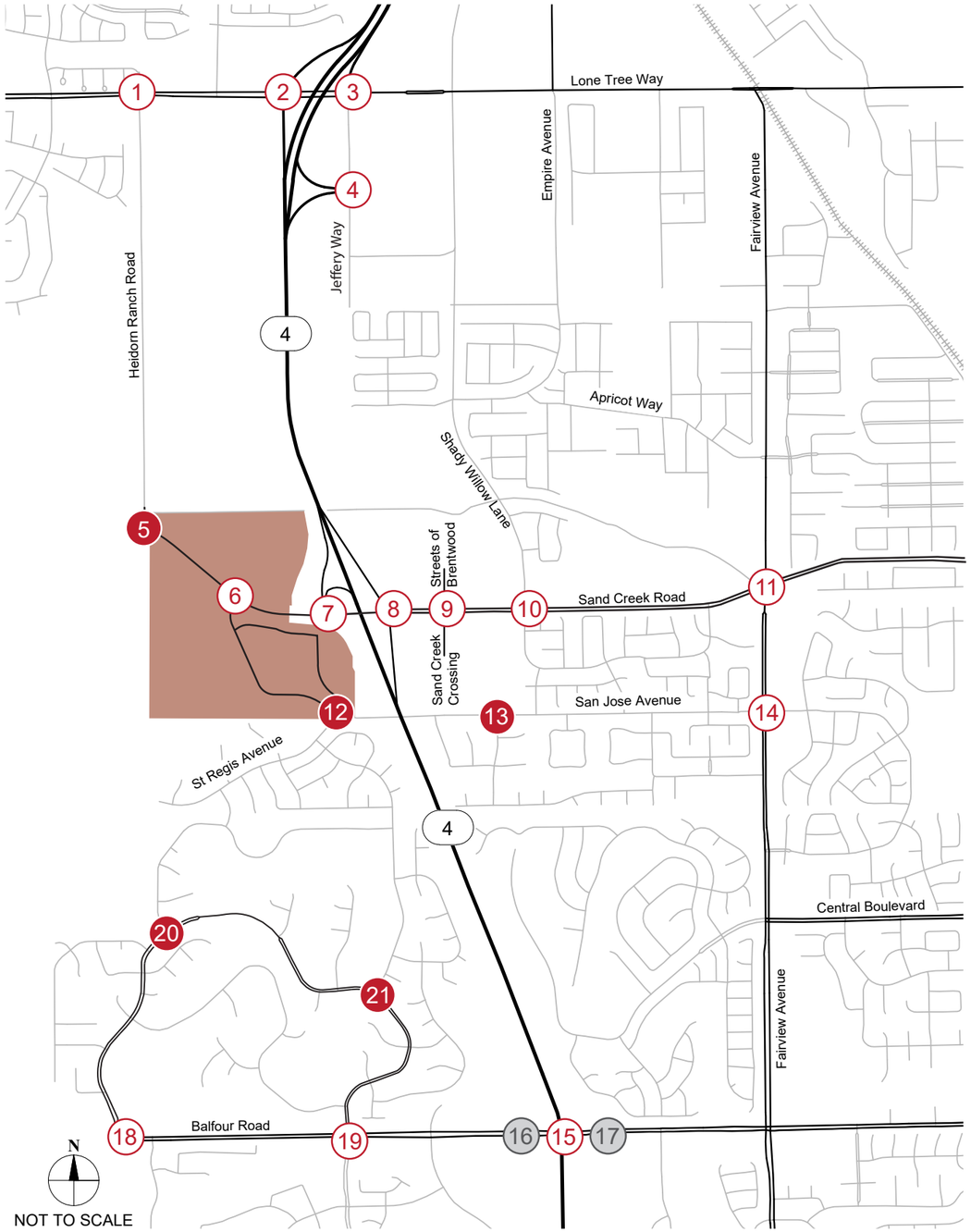
40 / 20		104 / 99
167 / 97	Roundhill Dr	31 / 32
		E Country Club Dr
21 / 27		
71 / 24		

Legend:

- Signalized
- Unsignalized
- Does Not Exist
- X/Y AM/ PM Peak Hour Turning Volume
- Project Road
- Project Site

NOT TO SCALE

Figure 3-5
Existing Plus Project Traffic Volumes for Development Scenario 1



1

	Fairside Way	
5 / 3		19 / 24
6 / 1		1105 / 1178
19 / 24		38 / 34
		Lone Tree Way
3 / 16	Heidorn Ranch Rd	59 / 168
911 / 1332		2 / 4
79 / 145		41 / 77

2

	SR-4 EB Off-Ramp	
594 /623		1124 / 1369
3 /0		85 / 125
347 /611		Lone Tree Way
959 / 1532	SR-4 EB On-Ramp	
446 / 584		

3

	SR-4 WB On-Ramp	
		471 / 476
		770 / 945
		19 / 10
		Lone Tree Way
1021 / 1726	Jeffery Way	447 /567
285 / 408		25 /35
		160 /220

4

271 /396	Jeffery Way	
4 /3		
SR-4 WB Ramps		
600 / 767		
34 / 16		
1 /1		
3 /3		

5

	Heidorn Ranch Rd	27 / 47
36 /44		Sand Creek Rd

6

9 /40	San Jose Ave	128 / 422
71 /131		74 / 118
112 /351		Sand Creek Rd
14 / 37		18 /7
22 / 7		51 /54
		145 /109

7

102 /287	SR-4 SB Ramps	77 / 81
856 /1428		101 / 254
		Sand Creek Rd
82 / 115		
177 / 345		

8

	SR-4 NB On-Ramp	866 / 871
		136 / 171
		Sand Creek Rd
140 / 248	SR-4 NB Off-Ramp	55 /150
879 / 1537		1 /0
		100 /135

9

68 /185	Streets of Brentwood	87 / 123
20 /59		782 / 661
45 /102		42 / 107
		Sand Creek Rd
90 / 265	Sand Creek Crossing	146 /177
764 / 1137		36 /52
120 / 263		36 /89

10

83 /105	Shady Willow Ln	141 / 134
89 /105		800 / 804
152 /200		22 / 20
		Sand Creek Rd
83 / 147	Highland Way	85 /48
727 / 1237		71 /78
56 / 71		19 /7

11

53 /70	Fairview Ave	56 / 76
320 /324		643 / 599
83 /130		183 / 131
		Sand Creek Rd
31 / 121		349 /321
640 / 854		269 /282
244 / 455		204 /149

12

37 /22	Rose Wood Dr	12 / 6
58 /20		8 / 22
11 /4		432 / 344
		San Jose Ave
11 / 39	St. Regis Ave	7 /18
5 / 24		48 /23
53 / 20		288 /275

13

28 /0	Dwy	1 / 11
2 /3		408 / 303
78 /6		15 / 39
		San Jose Ave
0 / 3	Portofino Drive	
374 / 237		35 / 9
8 / 10		24 / 12

14

126 /79	Fairview Ave	92 / 72
566 /703		86 / 21
55 /96		48 / 17
		San Jose Ave
136 / 92		156 /184
57 / 27		562 /550
176 / 162		18 /38

15

395 /108	SR-4	455 / 161
749 /987		807 / 635
282 /185		77 / 447
		Balfour Rd
559 / 54		155 /440
701 /563		693 /739
292 / 390		36 /309

16

Intersection does not exist under this scenario

17

Intersection does not exist under this scenario

18

7 / 23	W Country Club Dr	91 / 97
508 /103		425 /260
71 /98		816 /212
		Balfour Rd
14 / 45	American Ave	123 /30
227 / 383		213 /90
354 / 25		789 /192

19

278 /27	E Country Club Dr	49 / 144
114 /45		922 / 538
189 /95		44 / 119
		Balfour Rd
54 / 25	Foothill Dr	210 /35
928 / 605		87 /26
121 / 48		81 /58

20

295 /162	Presidio Drive	5 / 5
11 /10		54 / 21
9 /3		4 /1
		W Country Club Dr
109 / 145		3 /3
23 / 30		5 /7
		3 /2

21

37 / 20	Roundhill Dr	115 / 102
172 / 99		31 / 32
		E Country Club Dr
21 / 27		
71 / 24		

Legend:

- Signalized
- Unsignalized
- Does Not Exist
- X/Y AM/ PM Peak Hour Turning Volume
- Project Road
- Project Site

NOT TO SCALE

Figure 3-6

Existing Plus Project Traffic Volumes for Development Scenario 2

Table 3–3 Existing plus Project Intersection LOS Summary

#	Intersection	Traffic Control	Peak Hour	Baseline		Plus Project (Scenario 1)			Plus Project (Scenario 2)		
				Delay (a)	LOS	Delay (a)	LOS	Δ (b)	Delay (a)	LOS	Δ (b)
1	Lone Tree Way / Heidorn Ranch Road/Fairside Way	Signal	AM	10.9	B	11.0	B	0.1	11.0	B	0.1
			PM	12.5	B	13.2	B	0.7	13.2	B	0.7
2	Lone Tree Way / SR-4 SB Ramps	Signal	AM	43.2	D	43.1	D	-0.1	43.0	D	-0.2
			PM	35.1	D	35.3	D	0.2	35.3	D	0.2
3	Lone Tree Way / Jeffrey Way/SR-4 NB Entrance Ramp	Signal	AM	19.8	B	20.0	C	0.2	20.1	C	0.3
			PM	13.4	B	14.4	B	1.0	14.3	B	0.9
4	Jeffrey Way / SR-4 NB Ramps	Signal	AM	10.6	B	10.6	B	0.0	10.6	B	0.0
			PM	13.0	B	13.4	B	0.4	13.4	B	0.4
5	Sand Creek Road / Heidorn Ranch Road (Future	SSSC	AM	*Intersection does not exist in this scenario*		7.4	A	-	7.5	A	-
			PM			7.5	A		7.5	A	
6	Sand Creek Road / San Jose Avenue (Future)	Signal	AM	*Intersection does not exist in this scenario*		8.1	A	-	7.2	A	-
			PM			14.9	B		14.4	B	
7	Sand Creek Road / SR-4 SB Ramps	Signal	AM	3.5	A	4.5	A	1.0	4.6	A	1.1
			PM	3.6	A	4.3	A	0.7	4.3	A	0.7
8	Sand Creek Road / SR-4 NB Ramps	Signal	AM	16.7	B	10.4	B	-6.3	10.7	B	-6.0
			PM	9.7	A	11.9	B	2.2	11.8	B	2.1
9	Sand Creek Road / Sand Creek Crossing/Streets of Brentwood	Signal	AM	16.7	B	16.8	B	0.1	16.9	B	0.2
			PM	23.7	C	24.4	C	0.7	24.4	C	0.7
10	Sand Creek Road / Shady Willow Lane/Highland Way	Signal	AM	16.8	B	17.0	B	0.2	17.0	B	0.2
			PM	20.8	C	22.7	C	1.9	22.8	C	2.0
11	Sand Creek Road / Fairview Avenue	Signal	AM	52.1	D	53.6	D	1.5	53.7	D	1.6
			PM	42.3	D	47.3	D	5.0	47.3	D	5.0
12	San Jose Avenue / St. Regis Avenue	SSSC	AM	0.0	A	14.7	B	14.7	18.6	C	18.6
			PM	0.0	A	12.0	B	12.0	12.4	B	12.4
13	San Jose Avenue / Portofino Drive	SSSC	AM	15.3	C	15.8	C	0.5	16.5	C	1.2
			PM	9.8	A	10.4	B	0.6	10.4	B	0.6

Notes: Signal = Traffic Signal, SSSC = Side Street Stop Control, AWSC = All Way Stop Control. **Bold** indicates substandard per jurisdiction minimum thresholds. **Bold and shaded** indicates significant project impact.

(a) Delay is measured in seconds.

(b) Change in delay due to the addition of project traffic

Table 3–3 Existing plus Project Intersection LOS Summary (Cont.)

#	Intersection	Traffic Control	Peak Hour	Baseline		Plus Project (Scenario 1)			Plus Project (Scenario 2)		
				Delay (a)	LOS	Delay (a)	LOS	Δ (b)	Delay (a)	LOS	Δ (b)
14	San Jose Avenue/ Fairview Avenue	Signal	AM	65.8	**E**	68.8	**E**	3.0	69.0	**E**	3.2
			PM	56.4	**E**	63.7	**E**	7.3	63.7	**E**	7.3
15	Balfour Road / SR-4	Signal	AM	41.9	D	43.7	D	1.8	45.7	D	3.8
			PM	107.2	**F**	114.1	**F**	6.9	113.8	**F**	6.6
16	Balfour Road / SR-4 SB Ramps (Future)	Signal	AM	*Intersection does not exist in this scenario*		*Intersection does not exist in this scenario*			*Intersection does not exist in this scenario*		
			PM								
17	Balfour Road / SR-4 NB Ramps (Future)	Signal	AM	*Intersection does not exist in this scenario*		*Intersection does not exist in this scenario*			*Intersection does not exist in this scenario*		
			PM								
18	Balfour Road / American Avenue / West Country Club Drive	Signal	AM	75.8	**E**	80.4	**F**	4.6	88.3	**F**	12.5
			PM	15.4	B	15.3	B	-0.1	15.3	B	-0.1
19	Balfour Road / Foothill Drive / E Country Club Drive	Signal	AM	30.5	C	32.9	C	2.4	37.1	D	6.6
			PM	14.6	B	14.6	B	0.0	14.6	B	0.0
20	West Country Club / Presidio Drive	AWSC	AM	11.5	B	12.0	B	0.5	13.2	B	1.7
			PM	8.5	A	8.6	A	0.1	8.7	A	0.2
21	East Country Club / Roundhill Drive	AWSC	AM	8.8	A	9.1	A	0.3	9.7	A	0.9
			PM	7.8	A	7.8	A	0.0	7.9	A	0.1

Notes: Signal = Traffic Signal, SSSC = Side Street Stop Control, AWSC = All Way Stop Control. **Bold** indicates substandard per jurisdiction minimum thresholds. **Bold and shaded** indicates significant project impact.

(a) Delay is measured in seconds.

(b) Change in delay due to the addition of project traffic

Table 3–4 Existing plus Project Routes of Regional Significance Travel Time Summary

Facility	Dir.	Scenario	Travel Time (a)	Free-Flow Time (a)	Delay Index
AM Peak					
SR-4					
North of Lone Tree Way (Basic)	NB	Baseline	11.4	11.4	1.00
		With Scenario 1	11.4	11.4	1.00
		With Scenario 2	11.4	11.4	1.00
	SB	Baseline	14.8	14.8	1.00
		With Scenario 1	14.8	14.8	1.00
		With Scenario 2	14.8	14.8	1.00
Lone Tree Way NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	Baseline	18.7	17.0	1.10
		With Scenario 1	18.7	17.0	1.10
		With Scenario 2	18.8	17.0	1.10
	SB	Baseline	19.7	17.0	1.16
		With Scenario 1	19.7	17.0	1.16
		With Scenario 2	19.7	17.0	1.16
Jeffery Way NB On-Ramp (Merge)	NB	Baseline	18.5	17.0	1.09
		With Scenario 1	18.5	17.0	1.09
		With Scenario 2	18.6	17.0	1.09
Lone Tree Way/ Jeffery Way NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	Baseline	19.5	17.0	1.15
		With Scenario 1	19.5	17.0	1.15
		With Scenario 2	19.5	17.0	1.15
	SB	Baseline	18.5	17.0	1.09
		With Scenario 1	18.6	17.0	1.09
		With Scenario 2	18.6	17.0	1.09
Lone Tree Way to Sand Creek Road (Basic)	NB	Baseline	3.4	3.4	1.00
		With Scenario 1	3.4	3.4	1.00
		With Scenario 2	3.4	3.4	1.00
	SB	Baseline	9.7	9.7	1.00
		With Scenario 1	9.7	9.7	1.00
		With Scenario 2	9.7	9.7	1.00
Sand Creek Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	Baseline	18.8	17.0	1.10
		With Scenario 1	18.7	17.0	1.10
		With Scenario 2	18.9	17.0	1.11
	SB	Baseline	19.7	17.0	1.15
		With Scenario 1	19.7	17.0	1.16
		With Scenario 2	19.7	17.0	1.16
Sand Creek Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	Baseline	19.2	17.0	1.13
		With Scenario 1	19.2	17.0	1.13
		With Scenario 2	19.2	17.0	1.13
	SB	Baseline	18.3	17.0	1.07
		With Scenario 1	18.3	17.0	1.07
		With Scenario 2	18.3	17.0	1.07
Sand Creek Road to Balfour Road (Basic)	NB	Baseline	31.8	31.8	1.00
		With Scenario 1	31.8	31.8	1.00
		With Scenario 2	31.8	31.8	1.00
	SB	Baseline	30.1	30.1	1.00
		With Scenario 1	30.1	30.1	1.00
		With Scenario 2	30.1	30.1	1.00

Bold indicates a segment with a delay index greater than the allowable threshold of 2.5. **Bold and shaded** indicates significant project impact.

(a) Travel Time and Free-Flow Time are measured in seconds
Results were obtained using HCM freeway facility level of service analysis. The travel time is calculated using the average travel speed or free flow speed and segment length.

Table 3-4 Existing plus Project Routes of Regional Significance Travel Time Summary (Cont.)

Facility	Dir.	Scenario	Travel Time (a)	Free-Flow Time (a)	Delay Index
PM Peak					
SR-4					
North of Lone Tree Way (Basic)	NB	Baseline	11.4	11.4	1.00
		With Scenario 1	11.4	11.4	1.00
		With Scenario 2	11.4	11.4	1.00
	SB	Baseline	14.8	14.8	1.00
		With Scenario 1	14.9	14.8	1.01
		With Scenario 2	14.9	14.8	1.01
Lone Tree Way NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	Baseline	18.7	17.0	1.10
		With Scenario 1	18.6	17.0	1.09
		With Scenario 2	18.6	17.0	1.09
	SB	Baseline	19.7	17.0	1.16
		With Scenario 1	19.9	17.0	1.17
		With Scenario 2	19.9	17.0	1.17
Jeffery Way NB On-Ramp (Merge)	NB	Baseline	18.5	17.0	1.09
		With Scenario 1	18.4	17.0	1.08
		With Scenario 2	18.4	17.0	1.08
Lone Tree Way/ Jeffery Way NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	Baseline	19.5	17.0	1.15
		With Scenario 1	19.6	17.0	1.15
		With Scenario 2	19.6	17.0	1.15
	SB	Baseline	18.5	17.0	1.09
		With Scenario 1	18.8	17.0	1.10
		With Scenario 2	18.8	17.0	1.10
Lone Tree Way to Sand Creek Road (Basic)	NB	Baseline	3.4	3.4	1.00
		With Scenario 1	3.4	3.4	1.00
		With Scenario 2	3.4	3.4	1.00
	SB	Baseline	9.7	9.7	1.00
		With Scenario 1	9.7	9.7	1.00
		With Scenario 2	9.7	9.7	1.00
Sand Creek Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	Baseline	18.8	17.0	1.10
		With Scenario 1	18.7	17.0	1.10
		With Scenario 2	18.7	17.0	1.10
	SB	Baseline	19.7	17.0	1.15
		With Scenario 1	20.3	17.0	1.19
		With Scenario 2	20.2	17.0	1.19
Sand Creek Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	Baseline	19.2	17.0	1.13
		With Scenario 1	19.3	17.0	1.13
		With Scenario 2	19.3	17.0	1.13
	SB	Baseline	18.3	17.0	1.07
		With Scenario 1	18.3	17.0	1.07
		With Scenario 2	18.3	17.0	1.07
Sand Creek Road to Balfour Road (Basic)	NB	Baseline	31.8	31.8	1.00
		With Scenario 1	31.8	31.8	1.00
		With Scenario 2	31.8	31.8	1.00
	SB	Baseline	30.1	30.1	1.00
		With Scenario 1	30.1	30.1	1.00
		With Scenario 2	30.1	30.1	1.00

Bold indicates a segment with a delay index greater than the allowable threshold of 2.5.

(a) Travel Time and Free-Flow Time are measured in seconds
Results were obtained using HCM freeway facility level of service analysis. The travel time is calculated using the average travel speed or free flow speed and segment length.

4 EXISTING PLUS APPROVED PROJECTS

Existing plus Approved Projects Conditions were estimated by adding the volumes associated with the approved projects identified by the local jurisdictions to the existing traffic counts.

4.1 PLANNED ROADWAY PROJECTS IN VICINITY OF SITE

Existing plus Approved Projects Conditions includes the new grade-separated Balfour Road and SR-4 interchange. The project will replace the existing signalized, at-grade intersection at Balfour Road and SR-4 with a full access controlled, grade-separated interchange. SR-4 will be raised to cross over Balfour Road, creating a new undercrossing for Balfour Road. No other roadway network changes are assumed to take place under this scenario. **Figure 4-1** illustrates the intersection geometry and traffic control assumed under Existing plus Approved Projects Conditions.

4.2 APPROVED AND PENDING DEVELOPMENT PROJECTS IN VICINITY OF SITE

Approved but not yet built project lists for the City of Brentwood, City of Antioch, and City of Oakley were obtained from each respective city's website. Each list provided information on land uses, project size, and date of completion. The information provided was used to estimate traffic on the roadway network for Existing Plus Approved Projects conditions. The resulting traffic from approved projects is illustrated in **Figure 4-2**. The lists of projects provided by each jurisdiction and other approved project information is provided in **Appendix F.**

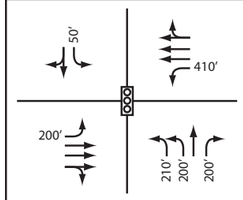
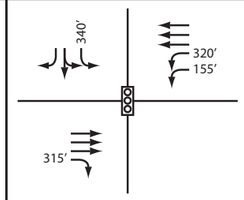
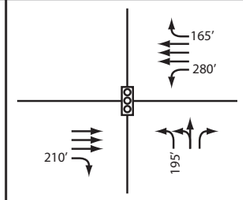
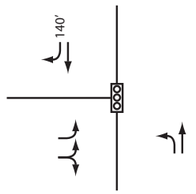
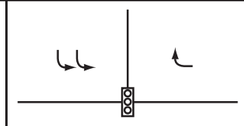
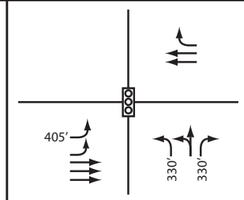
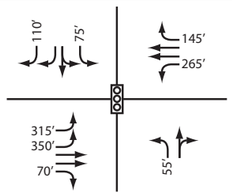
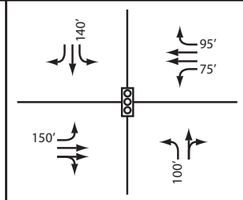
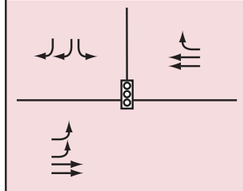
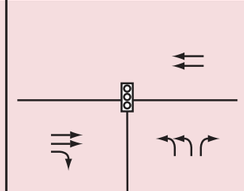
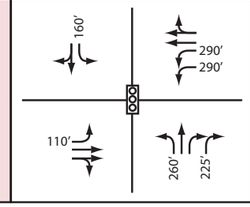
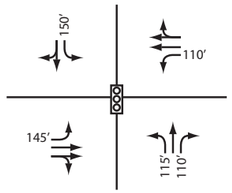
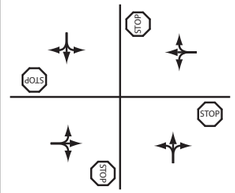
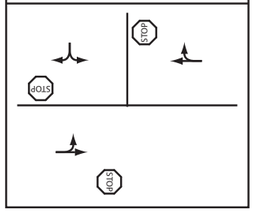
4.3 EXISTING PLUS APPROVED PROJECTS INTERSECTION LOS

Existing plus Approved Projects volumes were evaluated at the study intersections and are presented in **Figure 4-3**. Results are presented in **Table 4-1**. As shown in the table, the following intersections would operate below acceptable LOS under Existing plus Approved Projects Conditions:

- #2 – SR-4 SB Ramps @ Lone Tree Way
  - AM (LOS E) and PM (LOS F) Peaks
- #11 – Fairview Avenue at Sand Creek Road
  - AM (LOS E) Peak
- #14 – Fairview Avenue at San Jose Avenue
  - AM (LOS E) Peak
- #18 – W Country Club Drive/ American Avenue at Balfour Road
  - AM (LOS E) Peak

The intersections listed above would operate below acceptable thresholds regardless of the proposed project. Analysis sheets are provided in the **Appendix G.**

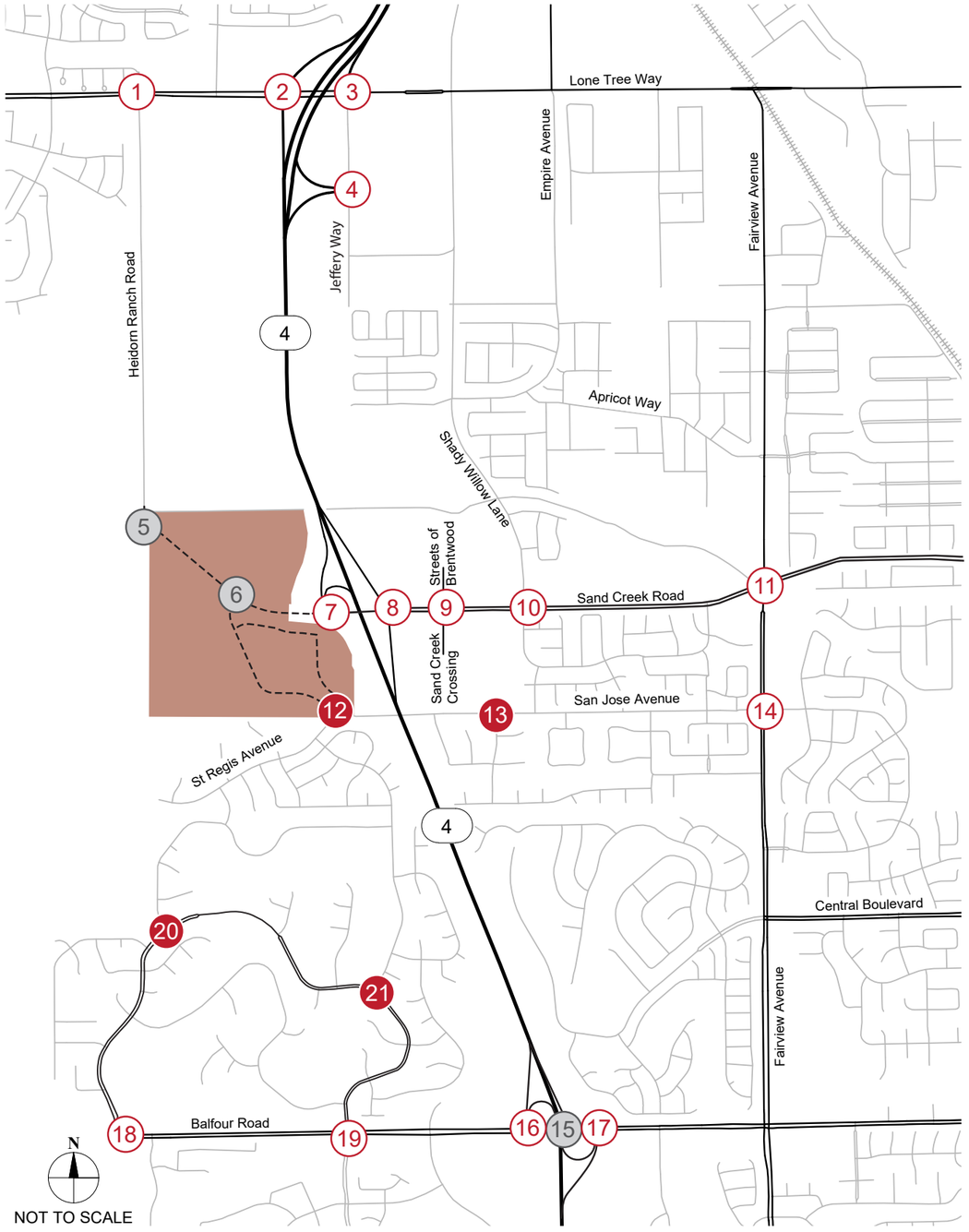


1. Lone Tree Wy/ Heidorn Ranch Rd/Fairside Wy	2. Lone Tree Wy/ SR-4 EB Ramps	3. Lone Tree Wy/ Jeffery Wy/SR-4 WB On-Ramp	4. SR-4 WB Ramps/ Jeffery Wy	5. Sand Creek Rd/ Heidorn Ranch Rd
				Intersection does not exist under this scenario
6. Sand Creek Rd/ San Jose Ave	7. Sand Creek Rd/ SR-4 EB Ramps	8. Sand Creek Rd/ SR-4 WB Ramps	9. Sand Creek Rd/ Sand Creek Crossing	10. Sand Creek Rd/ Shady Willow Ln/Highland Wy
Intersection does not exist under this scenario				
11. Sand Creek Rd/ Fairview Ave	12. San Jose Ave/ St. Regis Ave/Rose Wood Dr	13. San Jose Ave/ Portofino Dr	14. San Jose Ave/ Fairview Ave	15. Balfour Rd/ SR-4
				Intersection does not exist under this scenario
16. Balfour Rd/ SR-4 EB Ramps	17. Balfour Rd/ SR-4 WB Ramps	18. Balfour Rd/ American Ave/W Country Club Dr	19. Balfour Rd/ Foothill Dr/E Country Club Dr	20. W Country Club Dr/ Presidio Dr
				
21. E Country Club Dr/ Roundhill Dr				
				

Legend:

X	Signalized	XX′	Storage Length
X	Unsignalized	---	Project Road
X	Does Not Exist		Project Site

Figure 4-1
Existing Plus Approved Projects Lane Geometry and Traffic Control



1

	4 / 17 ⇖ Fairside Way 0 / 2 ⇗	⇗ 0 / 1
16 / 9 ⇘ 616 / 474 ⇙ Heidorn Ranch Rd		⇖ 270 / 700 Lone Tree Way

2

	121 /406 ⇖ SR-4 EB Off-Ramp 44 / 117 ⇗	⇘ 205 / 557
462 / 338 ⇘ 397 / 270 ⇙ SR-4 EB On-Ramp		⇖ 55 / 55 Lone Tree Way

3

	SR-4 WB On-Ramp ⇗	⇗ 86 / 86
127 / 218 ⇘ 376 / 237 ⇙ Jeffery Way		⇖ 118 / 172 Lone Tree Way
	140 /441 ⇘	⇘ 26 /73

4

	376 /237 ⇖ Jeffery Way	
SR-4 WB Ramps 166 / 515 ⇘		

5

Intersection does not exist under this scenario

6

Intersection does not exist under this scenario

7

	51 /102 ⇙ SR-4 SB Ramps	⇗ 57 / 58
		Sand Creek Rd

8

	SR-4 NB On-Ramp	⇗ 71 / 88
		⇖ 57 / 58 Sand Creek Rd
51 / 101 ⇙ SR-4 NB Off-Ramp		⇘ 36 /76

9

	7 / 8 ⇖ Streets of Brentwood 1 / 1 ⇗	⇗ 0 / 1
4 / 9 ⇘ 82 / 167 0 / 1 ⇙ Sand Creek Crossing		⇖ 120 / 138 Sand Creek Rd
		⇗ 0 /2

10

	16 /10 ⇖ Shady Willow Ln 2 / 1 ⇗	⇘ 1 / 2
6 / 18 ⇘ 77 / 150 ⇙ Highland Way		⇖ 104 / 129 Sand Creek Rd

11

	1 /4 ⇖ 26 /44 ⇦ 8 /4 ⇗ Fairview Ave	⇗ 2 / 8
72 / 145 ⇙ 7 / 5		⇖ 103 / 122 Sand Creek Rd
		⇘ 2 /8 ⇗ 27 /48

12

		San Jose Ave
St. Regis Ave		

13

	Dwy	San Jose Ave
Portofino Drive		

14

	33 / 49 ⇦ Fairview Ave	San Jose Ave
		⇑ 28 / 51

15

Intersection does not exist under this scenario

16

	26 / 74 ⇖ 48 / 138 ⇗ SR-4 SB Ramps	⇗ 85 / 93
		⇖ 50 / 92 Balfour Rd
31 / 47 ⇙ 67 / 117 ⇘		

17

		⇖ 210 / 234 Balfour Rd
67 / 182 ⇘ 46 / 69 ⇙ SR-4 NB Ramps		⇗ 19 / 48 ⇖ 41 / 122

18

	7 / 38 ⇙ W Country Club Dr	⇘ 0 / 2
14 / 43 ⇦ American Ave		⇖ 28 / 34 Balfour Rd

19

	1 / 1 -1 / -1 45 / 61 ⇙ E Country Club Dr	⇘ 23 / 68
		⇖ 49 / 60 ⇗ 0 / 21 Balfour Rd
0 / 2 ⇘ 21 / 78 1 / 3 ⇙ Foothill Dr		⇗ 2 / 2 ⇑ 0 / -2 ⇖ 16 / 15

20

	Presidio Drive	W Country Club Dr

21

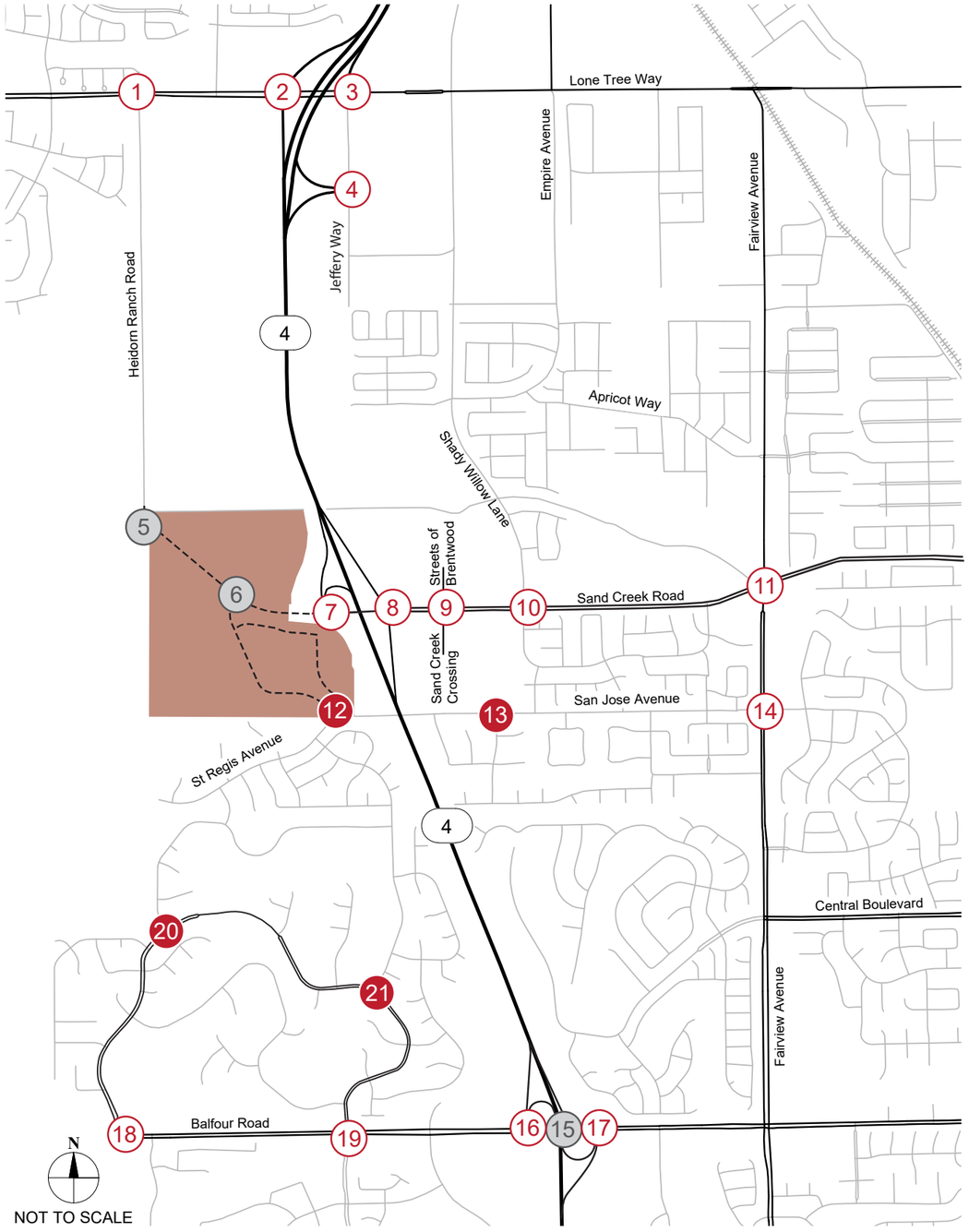
	Roundhill Dr	E Country Club Dr

Legend:

- (X) Signalized
- X Unsignalized
- (X) Does Not Exist
- X/Y AM/ PM Peak Hour Turning Volume
- --- Project Road
- Project Site

NOT TO SCALE

Figure 4-2
Approved Projects Generated Peak Hour Turning Movement Volumes



1

	Fairside Way	
9 /20		19 / 25
6 / 1		1359 / 1834
19 /26		38 / 34
		Lone Tree Way
19 / 25		50 /128
1511 / 1761		2 /4
65 / 108		41 /77
Heidorn Ranch Rd		

2

	SR-4 EB Off-Ramp	
715 /1029		1312 / 1874
3 /0		136 / 170
391 /728		Lone Tree Way
SR-4 EB On-Ramp		
1421 / 1870		
824 / 802		

3

	SR-4 WB On-Ramp	
		557 / 562
		884 / 1107
		19 / 10
		Lone Tree Way
1148 / 1944		570 /956
661 / 645		25 /35
Jeffery Way		182 /284

4

647 /633		
4 /3		
SR-4 WB Ramps	Jeffery Way	
744 / 1220		1 /1
34 / 16		3 /3

5

Intersection does not exist under this scenario

6

Intersection does not exist under this scenario

7

		134 / 139
907 /1530		
SR-4 SB Ramps		Sand Creek Rd

8

	SR-4 NB On-Ramp	
		937 / 959
		144 / 125
		Sand Creek Rd
4 / 8		1 /0
888 / 1533		136 /211
SR-4 NB Off-Ramp		

9

73 /184		87 / 124
20 /59		858 / 707
46 /103		42 / 107
Streets of Brentwood		Sand Creek Rd
88 / 267		145 /176
812 / 1207		36 /52
118 / 263		36 /89
Sand Creek Crossing		

10

96 /108		142 / 136
89 /105		864 / 852
154 /201		22 / 20
Shady Willow Ln		Sand Creek Rd
87 / 157		84 /44
773 / 1302		71 /78
55 / 67		19 /7
Highland Way		

11

40 /38		58 / 84
346 /368		737 / 706
91 /134		183 / 131
Fairview Ave		Sand Creek Rd
21 / 84		341 /303
703 / 985		296 /330
245 / 432		204 /149

12

		432 / 344
		San Jose Ave
St. Regis Ave		288 /275

13

28 / 0		1 / 11
2 / 3		389 / 279
78 / 6		15 / 39
Dwy		San Jose Ave
0 / 3		34 / 5
359 / 213		
7 / 6		24 / 12
Portofino Drive		

14

126 / 79		91 / 68
594 / 728		81 / 16
54 / 92		48 / 17
Fairview Ave		San Jose Ave
136 / 92		151 /170
52 / 22		582 /579
171 / 149		18 /38

15

Intersection does not exist under this scenario

16

415 / 161		162 / 540
330 / 323		1012 / 1167
SR-4 SB Ramps		Balfour Rd
298 / 437		
1282 / 713		

17

		1549 / 1477
		Balfour Rd
1050 / 930		174 / 488
560 / 102		77 / 431
SR-4 NB Ramps		

18

6 / 19		91 / 99
471 / 103		446 / 269
78 / 136		791 / 212
W Country Club Dr		Balfour Rd
13 / 41		123 / 30
232 / 401		213 / 90
354 / 25		728 / 192
American Ave		

19

253 / 24		72 / 212
113 / 44		965 / 577
234 / 156		44 / 140
E Country Club Dr		Balfour Rd
53 / 23		212 / 37
880 / 662		87 / 24
122 / 51		97 / 73
Foothill Dr		

20

270 / 154		5 / 5
11 / 10		29 / 21
9 / 3		4 / 1
Presidio Drive		W Country Club Dr
96 / 135		3 / 3
23 / 30		5 / 7
		3 / 2

21

12 / 20		102 / 92
135 / 91		31 / 32
Roundhill Dr		E Country Club Dr
21 / 27		
71 / 24		

Legend:

- Signalized
- Unsignalized
- Does Not Exist
- X/Y AM/ PM Peak Hour Turning Volume
- Project Road
- Project Site

NOT TO SCALE

Figure 4-3
Existing Plus Approved Projects Peak Hour Turning Movement Volumes

Table 4–1 Existing plus Approved Projects Intersection LOS Summary

#	Intersection	Traffic Control	Peak Hour	Delay (a)	LOS
1	Lone Tree Way / Heidorn Ranch Road/Fairside Way	Signal	AM	10.8	B
			PM	13.2	B
2	Lone Tree Way / SR-4 SB Ramps	Signal	AM	69.8	**E**
			PM	100.3	**F**
3	Lone Tree Way / Jeffrey Way/SR-4 NB Entrance Ramp	Signal	AM	23.6	C
			PM	22.3	C
4	Jeffrey Way / SR-4 NB Ramps	Signal	AM	26.3	C
			PM	43.7	D
5	Sand Creek Road / Heidorn Ranch Road (Future	SSSC	AM	*Intersection does not exist in this scenario*	
			PM		
6	Sand Creek Road / San Jose Avenue (Future)	Signal	AM	*Intersection does not exist in this scenario*	
			PM		
7	Sand Creek Road / SR-4 SB Ramps	Signal	AM	3.8	A
			PM	3.8	A
8	Sand Creek Road / SR-4 NB Ramps	Signal	AM	10.8	B
			PM	13.4	B
9	Sand Creek Road / Sand Creek Crossing/Streets of Brentwood	Signal	AM	17.0	B
			PM	24.8	C
10	Sand Creek Road / Shady Willow Lane/Highland Way	Signal	AM	17.5	B
			PM	24.5	C
11	Sand Creek Road / Fairview Avenue	Signal	AM	56.5	**E**
			PM	50.0	D
12	San Jose Avenue / St. Regis Avenue	SSSC	AM	0.0	A
			PM	0.0	A
13	San Jose Avenue / Portofino Drive	SSSC	AM	15.3	C
			PM	9.8	A
14	San Jose Avenue/ Fairview Avenue	Signal	AM	64.6	**E**
			PM	54.4	D
15	Balfour Road / SR-4	Signal	AM	*Intersection does not exist in this scenario*	
			PM		
16	Balfour Road / SR-4 SB Ramps (Future)	Signal	AM	14.3	B
			PM	38.9	D
17	Balfour Road / SR-4 NB Ramps (Future)	Signal	AM	5.9	A
			PM	14.6	B
18	Balfour Road / American Avenue / West Country Club Drive	Signal	AM	75.5	**E**
			PM	16.1	B
19	Balfour Road / Foothill Drive / E Country Club Drive	Signal	AM	33.9	C
			PM	16.3	B
20	West Country Club / Presidio Drive	AWSC	AM	11.5	B
			PM	8.5	A
21	East Country Club / Roundhill Drive	AWSC	AM	8.8	A
			PM	7.8	A

Notes: Signal = Traffic Signal, SSSC = Side Street Stop Control, AWSC = All Way Stop Control. **Bold** indicates substandard per jurisdiction minimum thresholds.

(a) Delay is measured in seconds.

4.4 EXISTING PLUS APPROVED PROJECTS FREEWAY ANALYSIS

Existing plus Approved Projects volumes were evaluated at SR-4. Results are presented in **Table 4-2**. As shown in the table, no routes of regional significance would experience a delay index of 2.5 or greater; all would operate at an acceptable condition.

Analysis sheets are provided in the **Appendix G.**

4.5 PROJECT TRIP DISTRIBUTION

Project distribution would be different under Existing plus Approved Projects Conditions as the surrounding land uses and roadway network improve. A separate distribution pattern was prepared based on the planned roadway improvement projects within the vicinity of the project. **Figure 4-4** presents the traffic distribution assumed for this analysis. Based on the assumed trip distribution, new vehicle trips generated by the project were assigned to the street network as shown in **Figure 4-5** and **Figure 4-6.** The figures represent the total trips on the network, including pass-by and internal capture reductions for the two development scenarios.

Additional project distribution information is provided in **Appendix C**.

4.6 EXISTING PLUS APPROVED PROJECTS PLUS PROJECT INTERSECTION LOS

Existing plus Approved Projects plus Project Conditions were evaluated at the study intersections. Turning movement volumes at each study intersection for the two development scenarios are shown in **Figure 4-7** and **Figure 4-8.** The results of the intersection analysis are shown in **Table 4-3.** The following intersections would operate below acceptable LOS under Existing plus Approved Projects plus Project Conditions:

Development Scenario 1

- #2 – SR-4 SB Ramps at Lone Tree Way
  - AM (Increased delay, LOS E) and PM (Increased delay, LOS F) Peaks – Significant Impact
- #11 – Fairview Avenue at Sand Creek Road
  - AM (Increased delay, LOS E) Peak – Significant Impact
- #14 – Fairview Avenue at San Jose Avenue
  - AM (Increased delay, LOS E) and PM (Worsened from LOS D to LOS E) Peaks – Significant Impact
- #18 – W Country Club Drive/ American Avenue at Balfour Road
  - AM (Worsened from LOS E to LOS F) Peak – Significant Impact

Table 4–2 Existing plus Approved Projects Routes of Regional Significance Travel Time Summary

Facility	Direction	Travel Time (a)	Free-Flow Time (a)	Delay Index
AM Peak				
SR-4				
North of Lone Tree Way (Basic)	NB	11.4	11.4	1.00
	SB	14.8	14.8	1.00
Lone Tree Way NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	18.7	17.0	1.10
	SB	19.8	17.0	1.16
Jeffery Way NB On-Ramp (Merge)	NB	18.5	17.0	1.08
Lone Tree Way/ Jeffery Way NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	19.6	17.0	1.15
	SB	18.6	17.0	1.09
Lone Tree Way to Sand Creek Road (Basic)	NB	3.4	3.4	1.00
	SB	9.7	9.7	1.00
Sand Creek Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	18.7	17.0	1.10
	SB	19.7	17.0	1.16
Sand Creek Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	19.2	17.0	1.13
	SB	18.3	17.0	1.07
Sand Creek Road to Balfour Road (Basic)	NB	31.8	31.8	1.00
	SB	30.1	30.1	1.00
Balfour Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	18.3	17.0	1.07
	SB	19.6	17.0	1.15
Balfour Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	19.3	17.0	1.13
	SB	18.3	17.0	1.07
South of Balfour Road (Basic)	NB	90.0	90.0	1.00
	SB	90.0	90.0	1.00

Bold indicates a segment with a delay index greater than the allowable threshold of 2.5.

(a) Travel Time and Free-Flow Time Results are measured in seconds
Travel Times were obtained using HCM freeway facility level of service analysis.
The travel time is calculated using the average travel speed or free flow speed and segment length.

Table 4–2 Existing plus Approved Projects Routes of Regional Significance Travel Time Summary (Cont.)

Facility	Direction	Travel Time (a)	Free-Flow Time (a)	Delay Index
PM Peak				
SR-4				
North of Lone Tree Way (Basic)	NB	11.4	11.4	1.00
	SB	15.1	14.8	1.02
Lone Tree Way NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	18.5	17.0	1.08
	SB	20.3	17.0	1.19
Jeffery Way NB On-Ramp (Merge)	NB	18.4	17.0	1.08
Lone Tree Way/ Jeffery Way NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	19.9	17.0	1.17
	SB	18.8	17.0	1.10
Lone Tree Way to Sand Creek Road (Basic)	NB	3.4	3.4	1.00
	SB	9.7	9.7	1.00
Sand Creek Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	18.7	17.0	1.09
	SB	20.1	17.0	1.18
Sand Creek Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	19.3	17.0	1.13
	SB	18.3	17.0	1.07
Sand Creek Road to Balfour Road (Basic)	NB	31.8	31.8	1.00
	SB	30.1	30.1	1.00
Balfour Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	18.3	17.0	1.07
	SB	19.4	17.0	1.14
Balfour Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	19.7	17.0	1.16
	SB	18.4	17.0	1.08
South of Balfour Road (Basic)	NB	90.0	90.0	1.00
	SB	90.0	90.0	1.00

Bold indicates a segment with a delay index greater than the allowable threshold of 2.5.

(a) Travel Time and Free-Flow Time are measured in seconds.
Results were obtained using HCM freeway facility level of service analysis. The travel time is calculated using the average travel speed or free flow speed and segment length.

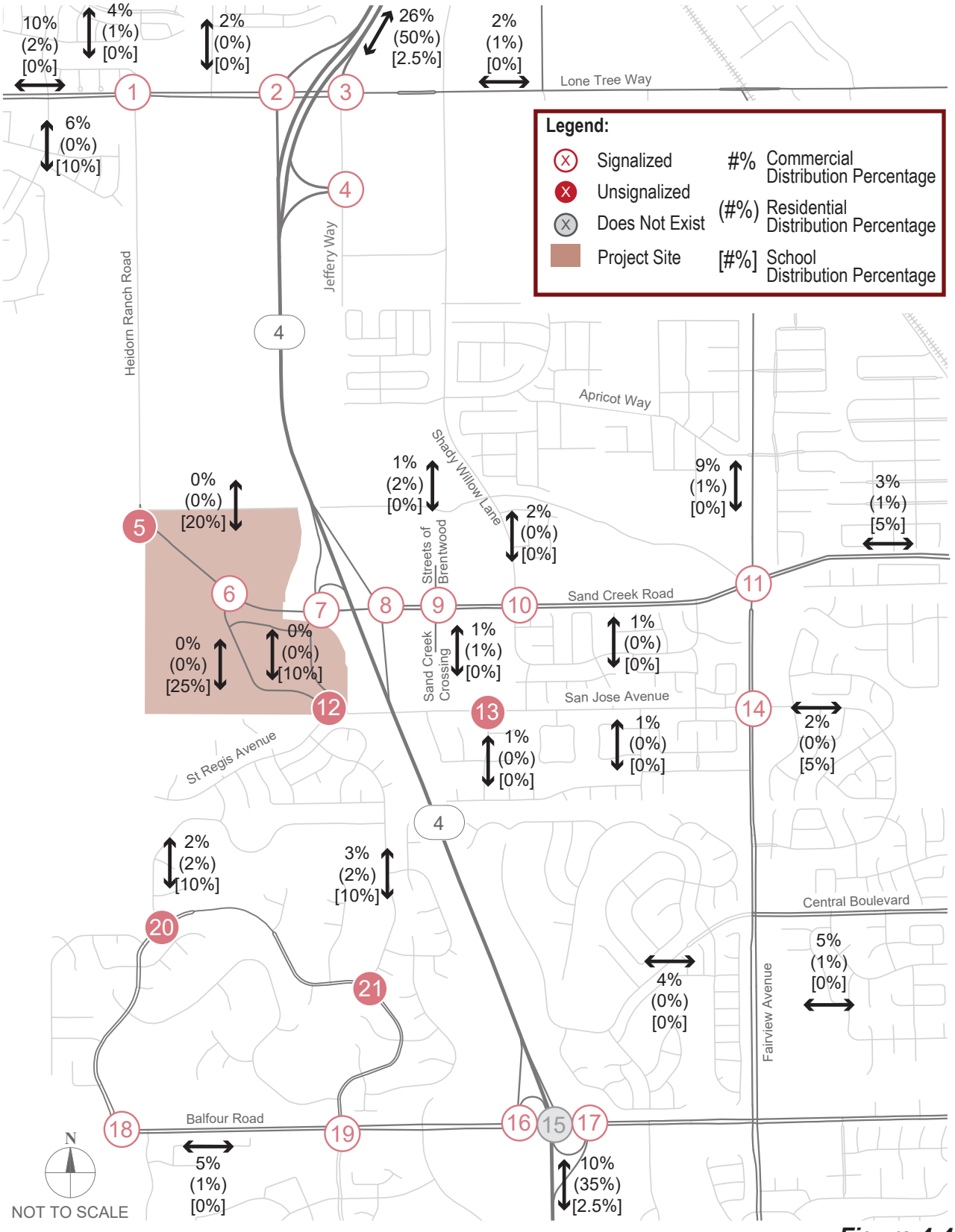
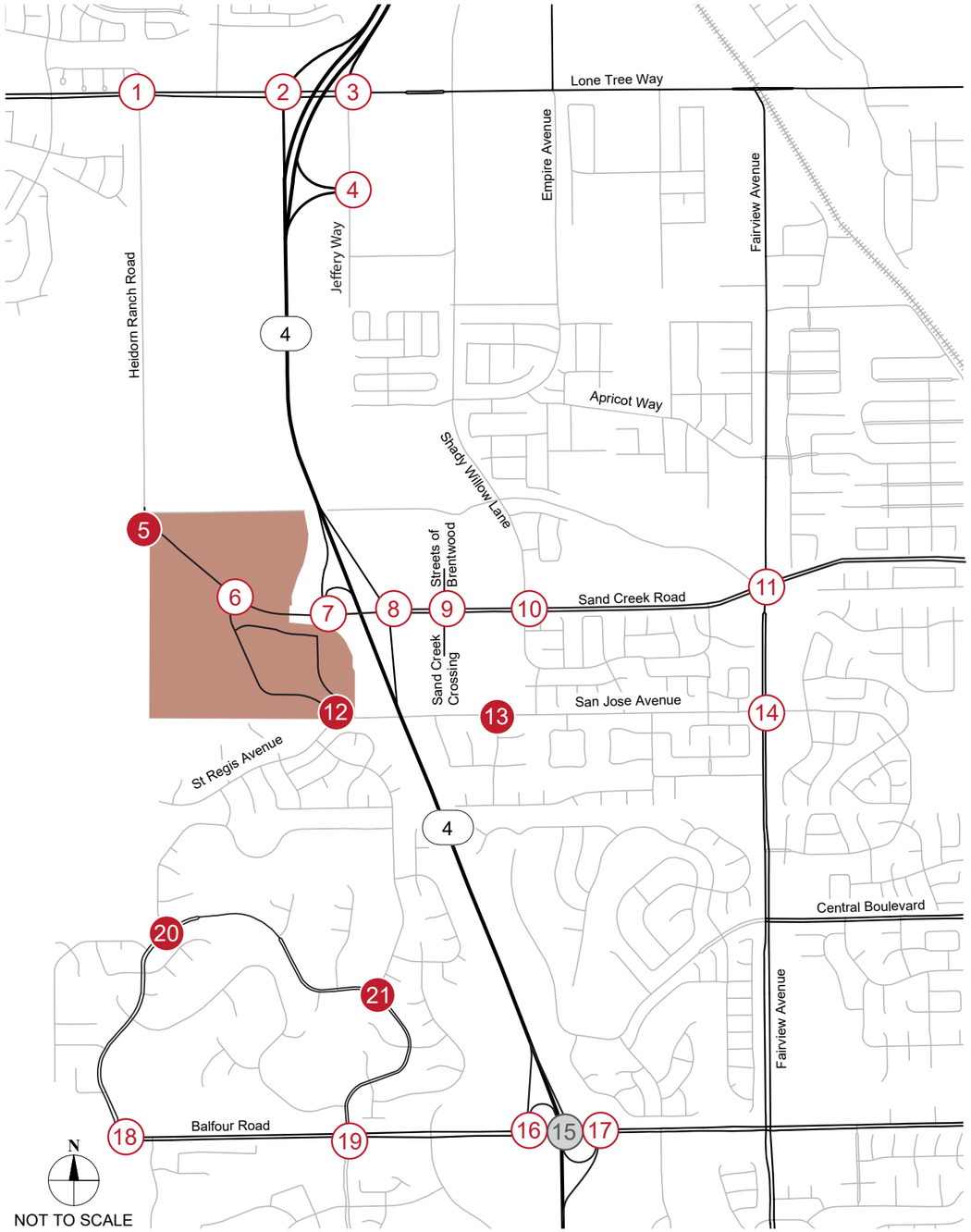


Figure 4-4

Project Trip Distribution (Existing plus Approved Projects Conditions)



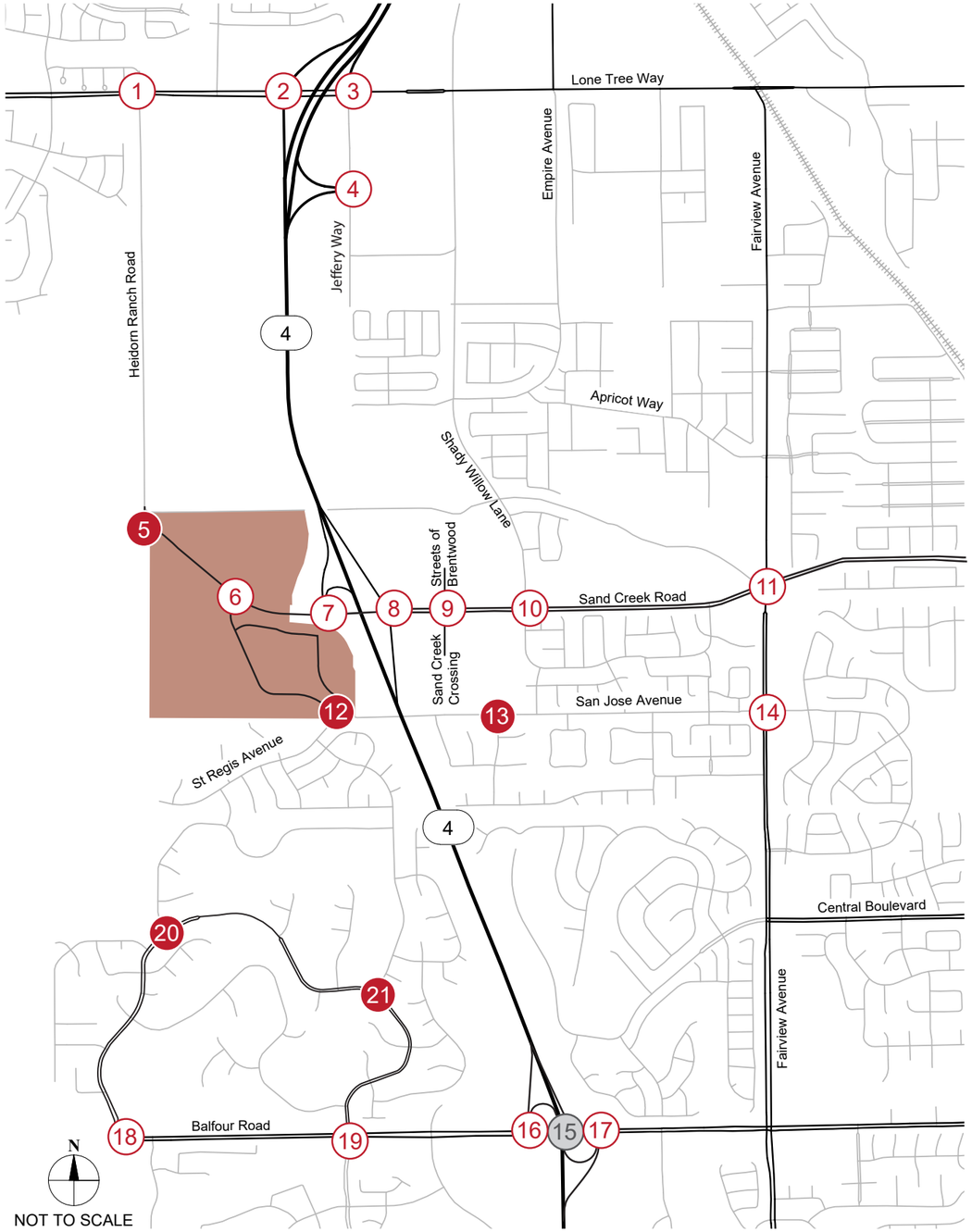
1 Fairside Way: ⇦ 17 / 45 Lone Tree Way Heidorn Ranch Rd: 17 / 46, 14 / 37 ⇦⇨; ⇩ 9 / 40	**2** SR-4 EB Off-Ramp: ⇦ 18 / 53, ⇖ 4 / 10 Lone Tree Way SR-4 EB On-Ramp: 20 / 53 ⇖	**3** SR-4 WB On-Ramp: ⇦ 4 / 10 Lone Tree Way Jeffery Way: ⇩ 18 / 53, ⇨ 5 / 10	**4** Jeffery Way SR-4 WB Ramps: 23 / 63 ⇦⇨
5 Heidorn Ranch Rd: ⇦ 14 / 37 ⇦ 9 / 40 Sand Creek Rd	**6** San Jose Ave: ⇦ 9 / 40, ⇖ 28 / 118, ⇦ 118 / 355 ⇦ 131 / 431 ⇖ 59 / 135 Sand Creek Rd 14 / 37 ⇦⇨ ⇧ 15 / 40 ⇩ 145 / 116	**7** SR-4 SB Ramps: ⇦ 102 / 304 ⇦ 89 / 263 Sand Creek Rd 88 / 135, 174 / 336 ⇦⇨	**8** SR-4 NB On-Ramp ⇦ 32 / 88 Sand Creek Rd 144 / 249, 31 / 87 ⇦⇨ SR-4 NB Off-Ramp: ⇦ 57 / 174
9 Streets of Brentwood: ⇦ 3 / 10 ⇦ 29 / 75 Sand Creek Rd 7 / 7, 22 / 78, 3 / 2 ⇦⇨ Sand Creek Crossing: ⇩ 1 / 3	**10** Shady Willow Ln: ⇦ 3 / 7 ⇦ 24 / 64 Sand Creek Rd 2 / 8, 20 / 66, 1 / 4 ⇦⇨ Highland Way: ⇩ 1 / 4	**11** Fairview Ave: ⇦ 14 / 36 ⇦ 5 / 14 Sand Creek Rd 11 / 38, 6 / 14, 3 / 12 ⇦⇨ ⇩ 4 / 11	**12** Rose Wood Dr: ⇦ 42 / 25, ⇩ 25 / 7, ⇦ 3 / 2 ⇦ 1 / 3 ⇦ 8 / 22 San Jose Ave 13 / 44, 5 / 24, 60 / 20 ⇦⇨ St. Regis Ave: ⇩ 7 / 18, ⇧ 3 / 12
13 Dwy ⇦ 8 / 21 San Jose Ave 7 / 22, 1 / 4 ⇦⇨ Portofino Drive: ⇩ 1 / 4	**14** Fairview Ave: ⇦ 3 / 12 ⇦ 3 / 7 San Jose Ave 2 / 8, 5 / 10 ⇦⇨ ⇧ 4 / 10 ⇩ 4 / 11	**15** Intersection does not exist under this scenario	**16** SR-4 SB Ramps: ⇦ 7 / 22, ⇦ 3 / 16 Balfour Rd 28 / 0, 50 / 21 ⇦⇨
17 ⇦ 6 / 15 Balfour Rd 50 / 21 ⇦ SR-4 NB Ramps	**18** W Country Club Dr: ⇦ 1 / 4, ⇩ 42 / 0 ⇦ 8 / 26 28 / 0 Balfour Rd 1 / 4, 9 / 25 ⇦⇨ American Ave ⇩ 70 / 0	**19** E Country Club Dr: ⇦ 29 / 4 ⇦ 7 / 22 Balfour Rd 1 / 4, 77 / 21 ⇦⇨ Foothill Dr	**20** Presidio Drive: ⇦ 18 / 6 ⇦ 28 / 0 W Country Club Dr 2 / 7 ⇦⇨
21 Roundhill Dr: ⇦ 32 / 6 ⇦ 2 / 7 E Country Club Dr			

Legend:
- (X) Signalized
- X Unsignalized
- (X) Does Not Exist
- X/Y AM/ PM Peak Hour Turning Volume
- Project Road
- Project Site

NOT TO SCALE

Figure 4-5

Total Project Generated Traffic Volumes for Development Scenario 1 (Existing plus Approved Projects Conditions)



1					2					3					4				
		Fairside Way		16 / 44			SR-4 EB Off-Ramp		17 / 52 4 / 10			SR-4 WB On-Ramp		4 / 10			Jeffery Way		
				Lone Tree Way					Lone Tree Way					Lone Tree Way		SR-4 WB Ramps			
16 / 45 14 / 37	Heidorn Ranch Rd		9 / 40		19 / 52	SR-4 EB On-Ramp					Jeffery Way		17 / 52 4 / 9	4 / 9		22 / 62			
5					6					7					8				
	36 / 44	Heidorn Ranch Rd		27 / 47		9 / 40 71 / 131 112 / 351	San Jose Ave		128 / 422 74 / 118		102 / 287	SR-4 SB Ramps		101 / 254			SR-4 NB On-Ramp		43 / 89
				Sand Creek Rd					Sand Creek Rd					Sand Creek Rd					Sand Creek Rd
					14 / 37 22 / 7				18 / 7 51 / 54 145 / 109	85 / 130 174 / 329					136 / 240 38 / 89	SR-4 NB Off-Ramp		60 / 164	
9					10					11					12				
	2 / 9	Streets of Brentwood		39 / 77		3 / 7	Shady Willow Ln		34 / 66		14 / 36	Fairview Ave		9 / 15		37 / 22 58 / 20 11 / 4	Rose Wood Dr		12 / 6 8 / 22
				Sand Creek Rd					Sand Creek Rd					Sand Creek Rd					San Jose Ave
6 / 7 30 / 81 2 / 1	Sand Creek Crossing		1 / 3		2 / 8 28 / 69 1 / 4	Highland Way		1 / 4		10 / 37 9 / 14 3 / 12			4 / 11		11 / 39 5 / 24 53 / 20	St. Regis Ave		7 / 18 48 / 23	
13					14					15					16				
		Dwy		19 / 24		3 / 12	Fairview Ave		7 / 8						6 / 21	3 / 16	SR-4 SB Ramps		Balfour Rd
				San Jose Ave					San Jose Ave										
15 / 24 1 / 4	Portofino Drive		1 / 4		6 / 9 4 / 9			4 / 10 4 / 11		Intersection does not exist under this scenario					25 / 0 45 / 21				
17					18					19					20				
				6 / 15		1 / 4 37 / 0	W Country Club Dr		7 / 25 25 / 0		26 / 4	E Country Club Dr		6 / 21		25 / 8	Presidio Drive		25 / 0
				Balfour Rd					Balfour Rd					Balfour Rd					W Country Club Dr
45 / 21	SR-4 NB Ramps				1 / 4 9 / 25	American Ave		61 / 0		1 / 4 69 / 21	Foothill Dr				13 / 10				
21																			
	37 / 8	Roundhill Dr		13 / 10															
				E Country Club Dr															

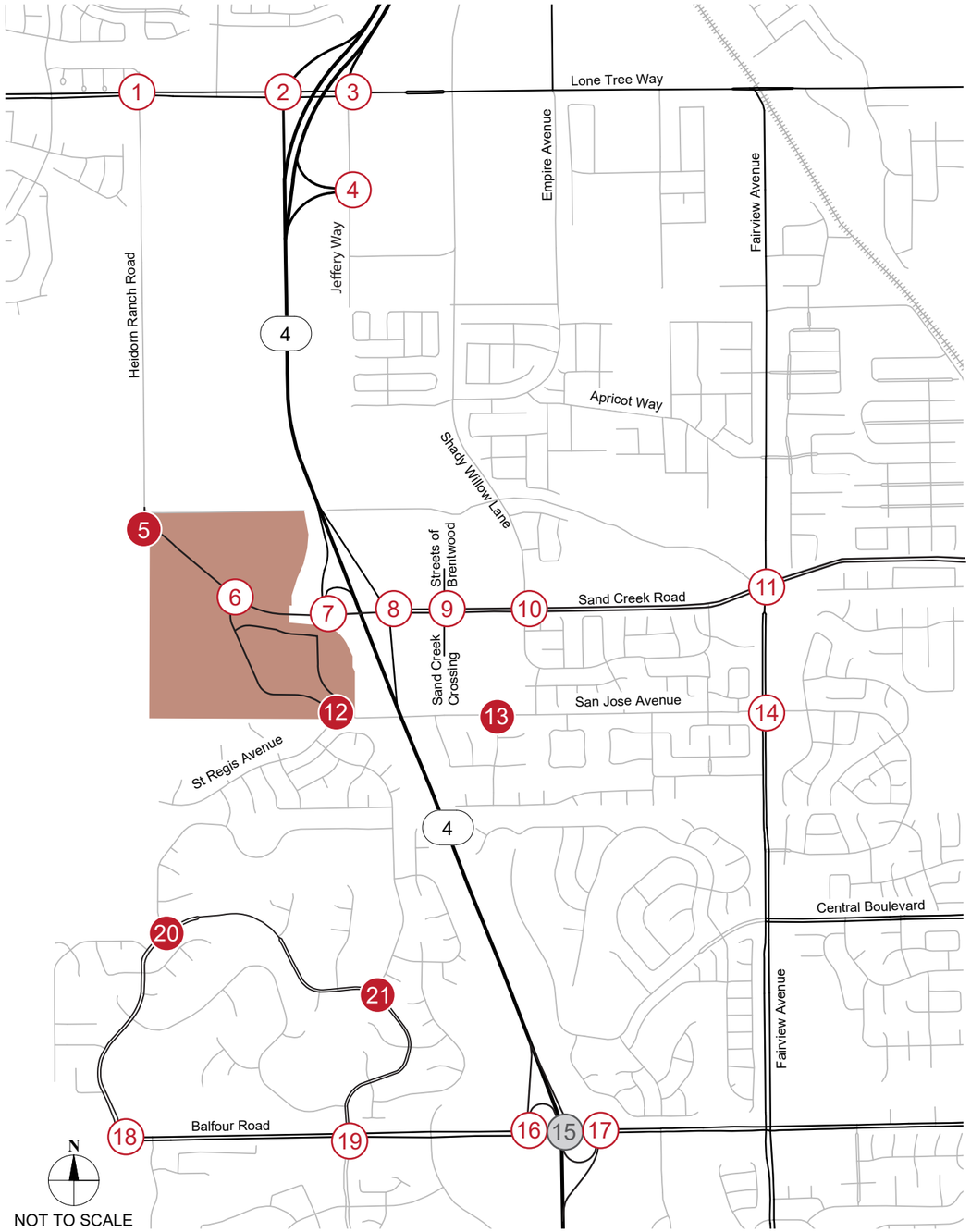
Legend:

- Signalized
- Unsignalized
- Does Not Exist
- X/Y AM/ PM Peak Hour Turning Volume
- Project Road
- Project Site

NOT TO SCALE

Figure 4-6

Total Project Generated Traffic Volumes for Development Scenario 2 (Existing plus Approved Projects Conditions)



1

	Fairside Way	
9 / 20 ⇖		⇗ 19 / 25
6 / 1 ⇩		⇧ 1376 / 1879
19 / 26 ⇗		⇖ 38 / 34
	Lone Tree Way	
19 / 25 ⇖		⇗
1528 / 1807 ⇩	Heidorn Ranch Rd	⇧ 59 / 168
79 / 145 ⇗		⇖ 2 / 4
		⇖ 41 / 77

2

	SR-4 EB Off-Ramp	
715 / 1029 ⇖		⇧ 1330 / 1927
3 / 0 ⇩		⇖ 140 / 180
391 / 728 ⇗		
	Lone Tree Way	
1421 / 1870 ⇩		
844 / 855 ⇗	SR-4 EB On-Ramp	

3

	SR-4 WB On-Ramp	
		⇗ 557 / 562
		⇧ 888 / 1117
		⇖ 19 / 10
	Lone Tree Way	
1148 / 1944 ⇩		
661 / 645 ⇗	Jeffery Way	⇧ 588 / 1009
		⇧ 25 / 35
		⇖ 187 / 294

4

647 / 633 ⇖		
4 / 3 ⇩		
	Jeffery Way	
SR-4 WB Ramps		
767 / 1283 ⇩		⇗
34 / 16 ⇗		⇧ 1 / 1
		⇖ 3 / 3

5

		⇗ 9 / 40
14 / 37 ⇖		
	Heidorn Ranch Rd	
		Sand Creek Rd

6

9 / 40 ⇖		⇗ 131 / 431
28 / 118 ⇩		
118 / 355 ⇗	San Jose Ave	⇖ 59 / 135
		Sand Creek Rd
14 / 37 ⇩		⇧ 15 / 40
		⇖ 145 / 116

7

102 / 304 ⇖		⇗ 134 / 139
	SR-4 SB Ramps	⇖ 89 / 263
907 / 1530 ⇗		Sand Creek Rd
88 / 135 ⇩		
174 / 336 ⇩		

8

	SR-4 NB On-Ramp	⇗ 937 / 959
		⇧ 176 / 213
		Sand Creek Rd
148 / 257 ⇩		
919 / 1620 ⇩	SR-4 NB Off-Ramp	⇗ 58 / 174
		⇖ 136 / 211

9

76 / 194 ⇖		⇗ 87 / 124
20 / 59 ⇩		⇧ 887 / 782
46 / 103 ⇗	Streets of Brentwood	⇖ 42 / 107
		Sand Creek Rd
95 / 274 ⇩		
834 / 1285 ⇩	Sand Creek Crossing	⇗ 146 / 179
121 / 265 ⇗		⇧ 36 / 52
		⇖ 36 / 89

10

99 / 115 ⇖		⇗ 142 / 136
89 / 105 ⇩		⇧ 888 / 916
154 / 201 ⇗	Shady Willow Ln	⇖ 22 / 20
		Sand Creek Rd
89 / 165 ⇩		
793 / 1368 ⇩	Highland Way	⇗ 85 / 48
56 / 71 ⇗		⇧ 71 / 78
		⇖ 19 / 7

11

54 / 74 ⇖		⇗ 58 / 84
346 / 368 ⇩		⇧ 742 / 720
91 / 134 ⇗	Fairview Ave	⇖ 183 / 131
		Sand Creek Rd
32 / 122 ⇩		
709 / 999 ⇩		⇗ 345 / 314
248 / 444 ⇗		⇧ 296 / 330
		⇖ 204 / 149

12

42 / 25 ⇖		⇗ 1 / 3
25 / 7 ⇩		⇧ 8 / 22
3 / 2 ⇗	Rose Wood Dr	⇖ 432 / 344
		San Jose Ave
13 / 44 ⇩		
5 / 24 ⇩	St. Regis Ave	⇗ 7 / 18
60 / 20 ⇗		⇧ 3 / 12
		⇖ 288 / 275

13

28 / 0 ⇖		⇗ 1 / 11
2 / 3 ⇩		⇧ 397 / 300
78 / 6 ⇗	Dwy	⇖ 15 / 39
		San Jose Ave
0 / 3 ⇩		
366 / 235 ⇩	Portofino Drive	⇗ 35 / 9
8 / 10 ⇗		⇖ 24 / 12

14

126 / 79 ⇖		⇗ 91 / 68
597 / 740 ⇩		⇧ 84 / 23
54 / 92 ⇗	Fairview Ave	⇖ 48 / 17
		San Jose Ave
136 / 92 ⇩		
54 / 30 ⇩		⇗ 155 / 180
176 / 159 ⇗		⇧ 586 / 590
		⇖ 18 / 38

15

Intersection does not exist under this scenario

16

422 / 183 ⇖		⇗ 162 / 540
333 / 339 ⇗	SR-4 SB Ramps	⇧ 1012 / 1167
		Balfour Rd
326 / 437 ⇩		
1332 / 734 ⇩		

17

		⇧ 1555 / 1492
		Balfour Rd
1050 / 930 ⇩		
610 / 123 ⇩	SR-4 NB Ramps	⇗ 174 / 488
		⇧ 77 / 431

18

7 / 23 ⇖		⇗ 91 / 99
513 / 103 ⇩		⇧ 454 / 295
78 / 136 ⇗	W Country Club Dr	⇖ 819 / 212
		Balfour Rd
14 / 45 ⇩		
241 / 426 ⇩	American Ave	⇗ 123 / 30
354 / 25 ⇗		⇧ 213 / 90
		⇖ 798 / 192

19

282 / 28 ⇖		⇗ 72 / 212
113 / 44 ⇩		⇧ 972 / 599
234 / 156 ⇗	E Country Club Dr	⇖ 44 / 140
		Balfour Rd
54 / 27 ⇩		
957 / 683 ⇩	Foothill Dr	⇗ 212 / 37
122 / 51 ⇗		⇧ 87 / 24
		⇖ 97 / 73

20

288 / 160 ⇖		⇗ 5 / 5
11 / 10 ⇩		⇧ 57 / 21
9 / 3 ⇗	Presidio Drive	⇖ 4 / 1
		W Country Club Dr
98 / 142 ⇩		
23 / 30 ⇩		⇗ 3 / 3
		⇧ 5 / 7
		⇖ 3 / 2

21

12 / 20 ⇖		⇗ 104 / 99
167 / 97 ⇗	Roundhill Dr	⇖ 31 / 32
		E Country Club Dr
21 / 27 ⇩		
71 / 24 ⇩		

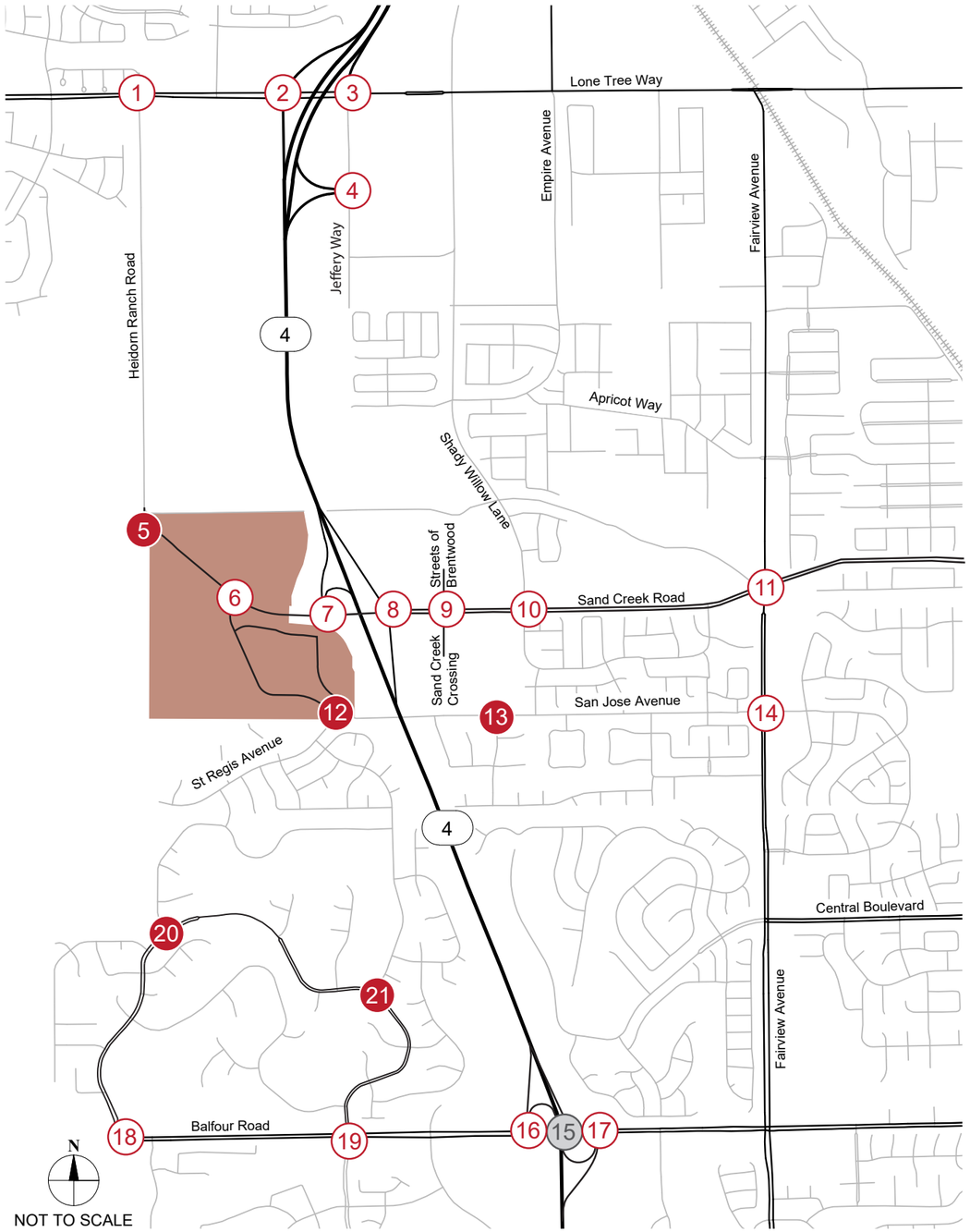
Legend:

- Signalized
- Unsignalized
- Does Not Exist
- X/Y AM/ PM Peak Hour Turning Volume
- Project Road
- Project Site

NOT TO SCALE

Figure 4-7

Existing plus Approved Projects Plus Project Traffic Volumes for Development Scenario 1



1

	Fairside Way	
9 / 20 / 6 / 1 / 19 / 26		19 / 25 / 1375 / 1878 / 38 / 34
		Lone Tree Way
19 / 25 / 1527 / 1806 / 79 / 145	Heidorn Ranch Rd	59 / 168 / 2 / 4 / 41 / 77

2

715 / 1029 / 3 / 0 / 391 / 728	SR-4 EB Off-Ramp	1329 / 1926 / 140 / 180
		Lone Tree Way
1421 / 1870 / 843 / 854	SR-4 EB On-Ramp	

3

	SR-4 WB On-Ramp	557 / 562 / 888 / 1117 / 19 / 10
		Lone Tree Way
1148 / 1944 / 661 / 645	Jeffery Way	587 / 1008 / 25 / 35 / 186 / 293

4

647 / 633 / 4 / 3	Jeffery Way	
SR-4 WB Ramps		
766 / 1282 / 34 / 16		1 / 1 / 3 / 3

5

36 / 44	Heidorn Ranch Rd	27 / 47
		Sand Creek Rd

6

9 / 40 / 71 / 131 / 112 / 351	San Jose Ave	128 / 422 / 74 / 118
		Sand Creek Rd
14 / 37 / 22 / 7		18 / 7 / 51 / 54 / 145 / 109

7

102 / 287	SR-4 SB Ramps	134 / 139 / 101 / 254
907 / 1530		Sand Creek Rd
85 / 130 / 174 / 329		

8

	SR-4 NB On-Ramp	937 / 959 / 187 / 214
		Sand Creek Rd
140 / 248 / 926 / 1622	SR-4 NB Off-Ramp	61 / 164 / 136 / 211

9

75 / 193 / 20 / 59 / 46 / 103	Streets of Brentwood	87 / 124 / 897 / 784 / 42 / 107
		Sand Creek Rd
94 / 274 / 842 / 1288 / 120 / 264	Sand Creek Crossing	146 / 179 / 36 / 52 / 36 / 89

10

99 / 115 / 89 / 105 / 154 / 201	Shady Willow Ln	142 / 136 / 898 / 918 / 22 / 20
		Sand Creek Rd
89 / 165 / 801 / 1371 / 56 / 71	Highland Way	85 / 48 / 71 / 78 / 19 / 7

11

54 / 74 / 346 / 368 / 91 / 134	Fairview Ave	58 / 84 / 746 / 721 / 183 / 131
		Sand Creek Rd
31 / 121 / 712 / 999 / 248 / 444		345 / 314 / 296 / 330 / 204 / 149

12

37 / 22 / 58 / 20 / 11 / 4	Rose Wood Dr	12 / 6 / 8 / 22 / 432 / 344
		San Jose Ave
11 / 39 / 5 / 24 / 53 / 20	St. Regis Ave	7 / 18 / 48 / 23 / 288 / 275

13

28 / 0 / 2 / 3 / 78 / 6	Dwy	1 / 11 / 408 / 303 / 15 / 39
		San Jose Ave
0 / 3 / 374 / 237 / 8 / 10	Portofino Drive	35 / 9 / 24 / 12

14

126 / 79 / 597 / 740 / 54 / 92	Fairview Ave	91 / 68 / 88 / 24 / 48 / 17
		San Jose Ave
136 / 92 / 58 / 31 / 175 / 158		155 / 180 / 586 / 590 / 18 / 38

15

Intersection does not exist under this scenario

16

421 / 182	SR-4 SB Ramps	162 / 540 / 1012 / 1167
333 / 339		Balfour Rd
323 / 437 / 1327 / 734		

17

		1555 / 1492
		Balfour Rd
1050 / 930 / 605 / 123	SR-4 NB Ramps	174 / 488 / 77 / 431

18

7 / 23 / 508 / 103 / 78 / 136	W Country Club Dr	91 / 99 / 453 / 294 / 816 / 212
		Balfour Rd
14 / 45 / 241 / 426 / 354 / 25	American Ave	123 / 30 / 213 / 90 / 789 / 192

19

279 / 28 / 113 / 44 / 234 / 156	E Country Club Dr	72 / 212 / 971 / 598 / 44 / 140
		Balfour Rd
54 / 27 / 949 / 683 / 122 / 51	Foothill Dr	212 / 37 / 87 / 24 / 97 / 73

20

295 / 162 / 11 / 10 / 9 / 3	Presidio Drive	5 / 5 / 54 / 21 / 4 / 1
		W Country Club Dr
109 / 145 / 23 / 30		3 / 3 / 5 / 7 / 3 / 2

21

12 / 20 / 172 / 99	Roundhill Dr	115 / 102 / 31 / 32
		E Country Club Dr
21 / 27 / 71 / 24		

Legend:

- Signalized
- Unsignalized
- Does Not Exist
- X/Y AM/ PM Peak Hour Turning Volume
- Project Road
- Project Site

NOT TO SCALE

Figure 4-8

Existing plus Approved Projects Plus Project Traffic Volumes for Development Scenario 2

Table 4–3 Existing plus Approved Projects plus Project Intersection LOS Summary

#	Intersection	Traffic Control	Peak Hour	Baseline		Plus Project (Scenario 1)			Plus Project (Scenario 2)		
				Delay (a)	LOS	Delay (a)	LOS	Δ (b)	Delay (a)	LOS	Δ (b)
1	Lone Tree Way / Heidorn Ranch Road/Fairside Way	Signal	AM	10.8	B	10.9	B	0.1	10.9	B	0.1
			PM	13.2	B	14.1	B	0.9	14.1	B	0.9
2	Lone Tree Way / SR-4 SB Ramps	Signal	AM	69.8	**E**	71.5	**E**	1.7	71.4	**E**	1.6
			PM	100.3	**F**	104.0	**F**	3.7	103.9	**F**	3.6
3	Lone Tree Way / Jeffrey Way/SR-4 NB Entrance Ramp	Signal	AM	23.6	C	23.8	C	0.2	23.9	C	0.3
			PM	22.3	C	23.6	C	1.3	23.6	C	1.3
4	Jeffrey Way / SR-4 NB Ramps	Signal	AM	26.3	C	26.8	C	0.5	27.1	C	0.8
			PM	43.7	D	47.8	D	4.1	47.6	D	3.9
5	Sand Creek Road / Heidorn Ranch Road (Future	SSSC	AM	*Intersection does not exist in this scenario*		7.4	A	-	7.5	A	-
			PM			7.5	A		7.5	A	
6	Sand Creek Road / San Jose Avenue (Future)	Signal	AM	*Intersection does not exist in this scenario*		8.1	A	-	7.2	A	-
			PM			14.9	B		14.4	B	
7	Sand Creek Road / SR-4 SB Ramps	Signal	AM	3.8	A	5.1	A	1.3	5.1	A	1.3
			PM	3.8	A	4.9	A	1.1	4.9	A	1.1
8	Sand Creek Road / SR-4 NB Ramps	Signal	AM	10.8	B	11.4	B	0.6	11.7	B	0.9
			PM	13.4	B	15.2	B	1.8	15.1	B	1.7
9	Sand Creek Road / Sand Creek Crossing/Streets of Brentwood	Signal	AM	17.0	B	17.2	B	0.2	17.2	B	0.2
			PM	24.8	C	25.8	C	1.0	25.8	C	1.0
10	Sand Creek Road / Shady Willow Lane/Highland Way	Signal	AM	17.5	B	17.7	B	0.2	17.7	B	0.2
			PM	24.5	C	27.5	C	3.0	27.7	C	3.2
11	Sand Creek Road / Fairview Avenue	Signal	AM	56.5	**E**	57.2	**E**	0.7	57.4	**E**	0.9
			PM	50.0	D	53.3	D	3.3	53.3	D	3.3
12	San Jose Avenue / St. Regis Avenue	SSSC	AM	0.0	A	14.7	B	14.7	18.6	C	18.6
			PM	0.0	A	13.0	B	13.0	13.4	B	13.4
13	San Jose Avenue / Portofino Drive	SSSC	AM	15.3	C	15.8	C	0.5	16.5	C	1.2
			PM	9.8	A	10.4	B	0.6	10.4	B	0.6

Notes: Signal = Traffic Signal, SSSC = Side Street Stop Control, AWSC = All Way Stop Control. **Bold** indicates substandard per jurisdiction minimum thresholds. **Bold and shaded** indicates significant project impact.

(a) Delay is measured in seconds.

(b) Change in delay due to the addition of project traffic

Table 4–3 Existing plus Approved Projects plus Project Intersection LOS Summary (Cont.)

#	Intersection	Traffic Control	Peak Hour	Baseline		Plus Project (Scenario 1)			Plus Project (Scenario 2)		
				Delay (a)	LOS	Delay (a)	LOS	Δ (b)	Delay (a)	LOS	Δ (b)
14	San Jose Avenue/ Fairview Avenue	Signal	AM	64.6	**E**	66.9	**E**	2.3	67.0	**E**	2.4
			PM	54.4	D	59.7	**E**	5.3	59.7	**E**	5.3
15	Balfour Road / SR-4	Signal	AM	*Intersection does not exist in this scenario*		*Intersection does not exist in this scenario*			*Intersection does not exist in this scenario*		
			PM								
16	Balfour Road / SR-4 SB Ramps (Future)	Signal	AM	14.3	B	14.6	B	0.3	14.8	B	0.5
			PM	38.9	D	40.6	D	1.7	40.6	D	1.7
17	Balfour Road / SR-4 NB Ramps (Future)	Signal	AM	5.9	A	6.0	A	0.1	6.0	A	0.1
			PM	14.6	B	14.8	B	0.2	14.8	B	0.2
18	Balfour Road / American Avenue / West Country Club Drive	Signal	AM	75.5	**E**	80.1	**F**	4.6	87.9	**F**	12.4
			PM	16.1	B	16.2	B	0.1	16.2	B	0.1
19	Balfour Road / Foothill Drive / E Country Club Drive	Signal	AM	33.9	C	35.8	D	1.9	39.6	D	5.7
			PM	16.3	B	16.4	B	0.1	16.4	B	0.1
20	West Country Club / Presidio Drive	AWSC	AM	11.5	B	12.0	B	0.5	13.2	B	1.7
			PM	8.5	A	8.6	A	0.1	8.7	A	0.2
21	East Country Club / Roundhill Drive	AWSC	AM	8.8	A	9.0	A	0.2	9.4	A	0.6
			PM	7.8	A	7.8	A	0.0	7.9	A	0.1

Notes: Signal = Traffic Signal, SSSC = Side Street Stop Control, AWSC = All Way Stop Control. **Bold** indicates substandard per jurisdiction minimum thresholds. **Bold and shaded** indicates significant project impact.

(a) Delay is measured in seconds.

(b) Change in delay due to the addition of project traffic

Development Scenario 2

- #2 – SR-4 SB Ramps at Lone Tree Way
  - AM (Increased delay, LOS E) and PM (Increased delay, LOS F) Peaks – Significant Impact
- #11 – Fairview Avenue at Sand Creek Road
  - AM (Increased delay, LOS E) Peak – Significant Impact
- #14 – Fairview Avenue at San Jose Avenue
  - AM (Increased delay, LOS E) and PM (Worsened from LOS D to LOS E) Peaks – Significant Impact
- #18 – W Country Club Drive/ American Avenue at Balfour Road
  - AM (Worsened from LOS E to LOS F) Peak – Significant Impact

Analysis sheets are provided in the **Appendix H.**

4.7 EXISTING PLUS APPROVED PROJECT PLUS PROJECT FREEWAY ANALYSIS

Traffic operations were evaluated at SR-4 under Existing plus Approved Projects plus Project Conditions. Results of the analysis are presented in **Table 4-4**. As shown in the table, no routes of regional significance would experience a delay index of 2.5 or greater; all would operate at an acceptable condition with and without the project.

Analysis sheets are provided in the **Appendix H.**

Table 4–4 Existing plus Approved Projects plus Project Routes of Regional Significance Travel Time Summary

Facility	Dir.	Scenario	Travel Time (a)	Free-Flow Time (a)	Delay Index
AM Peak					
SR-4					
North of Lone Tree Way (Basic)	NB	Baseline	11.4	11.4	1.00
		With Scenario 1	11.4	11.4	1.00
		With Scenario 2	11.4	11.4	1.00
	SB	Baseline	14.8	14.8	1.00
		With Scenario 1	14.8	14.8	1.00
		With Scenario 2	14.8	14.8	1.00
Lone Tree Way NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	Baseline	18.7	17.0	1.10
		With Scenario 1	18.7	17.0	1.10
		With Scenario 2	18.7	17.0	1.10
	SB	Baseline	19.8	17.0	1.16
		With Scenario 1	19.8	17.0	1.16
		With Scenario 2	19.8	17.0	1.16
Jeffery Way NB On-Ramp (Merge)	NB	Baseline	18.5	17.0	1.08
		With Scenario 1	18.5	17.0	1.08
		With Scenario 2	18.5	17.0	1.09
Lone Tree Way/ Jeffery Way NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	Baseline	19.6	17.0	1.15
		With Scenario 1	19.6	17.0	1.15
		With Scenario 2	19.6	17.0	1.15
	SB	Baseline	18.6	17.0	1.09
		With Scenario 1	18.6	17.0	1.09
		With Scenario 2	18.6	17.0	1.09
Lone Tree Way to Sand Creek Road (Basic)	NB	Baseline	3.4	3.4	1.00
		With Scenario 1	3.4	3.4	1.00
		With Scenario 2	3.4	3.4	1.00
	SB	Baseline	9.7	9.7	1.00
		With Scenario 1	9.7	9.7	1.00
		With Scenario 2	9.7	9.7	1.00
Sand Creek Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	Baseline	18.7	17.0	1.10
		With Scenario 1	18.7	17.0	1.10
		With Scenario 2	18.8	17.0	1.10
	SB	Baseline	19.7	17.0	1.16
		With Scenario 1	19.7	17.0	1.16
		With Scenario 2	19.7	17.0	1.16
Sand Creek Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	Baseline	19.2	17.0	1.13
		With Scenario 1	19.3	17.0	1.13
		With Scenario 2	19.3	17.0	1.13
	SB	Baseline	18.3	17.0	1.07
		With Scenario 1	18.3	17.0	1.07
		With Scenario 2	18.3	17.0	1.07
Sand Creek Road to Balfour Road (Basic)	NB	Baseline	31.8	31.8	1.00
		With Scenario 1	31.8	31.8	1.00
		With Scenario 2	31.8	31.8	1.00
	SB	Baseline	30.1	30.1	1.00
		With Scenario 1	30.1	30.1	1.00
		With Scenario 2	30.1	30.1	1.00

Bold indicates a segment with a delay index greater than the allowable threshold of 2.5.

(a) Travel Time and Free-Flow Time are measured in seconds.
Results were obtained using HCM freeway facility level of service analysis. The travel time is calculated using the average travel speed or free flow speed and segment length.

Table 4–4 Existing plus Approved Projects plus Project Routes of Regional Significance Travel Time Summary (Cont.)

Facility	Dir.	Scenario	Travel Time (a)	Free-Flow Time (a)	Delay Index
AM Peak					
SR-4					
Balfour Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	Baseline	18.3	17.0	1.07
		With Scenario 1	18.3	17.0	1.07
		With Scenario 2	18.3	17.0	1.07
	SB	Baseline	19.6	17.0	1.15
		With Scenario 1	19.6	17.0	1.15
		With Scenario 2	19.6	17.0	1.15
Balfour Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	Baseline	19.3	17.0	1.13
		With Scenario 1	19.3	17.0	1.13
		With Scenario 2	19.3	17.0	1.13
	SB	Baseline	18.3	17.0	1.07
		With Scenario 1	18.3	17.0	1.07
		With Scenario 2	18.3	17.0	1.07
South of Balfour Road (Basic)	NB	Baseline	90.0	90.0	1.00
		With Scenario 1	90.0	90.0	1.00
		With Scenario 2	90.0	90.0	1.00
	SB	Baseline	90.0	90.0	1.00
		With Scenario 1	90.0	90.0	1.00
		With Scenario 2	90.0	90.0	1.00

Bold indicates a segment with a delay index greater than the allowable threshold of 2.5.

(a) Travel Time and Free-Flow Time are measured in seconds.
Results were obtained using HCM freeway facility level of service analysis. The travel time is calculated using the average travel speed or free flow speed and segment length.

Table 4–4 Existing plus Approved Projects plus Project Routes of Regional Significance Travel Time Summary (Cont.)

Facility	Dir.	Scenario	Travel Time (a)	Free-Flow Time (a)	Delay Index
PM Peak					
SR-4					
North of Lone Tree Way (Basic)	NB	Baseline	11.4	11.4	1.00
		With Scenario 1	11.4	11.4	1.00
		With Scenario 2	11.4	11.4	1.00
	SB	Baseline	15.1	14.8	1.02
		With Scenario 1	15.3	14.8	1.04
		With Scenario 2	15.3	14.8	1.03
Lone Tree Way NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	Baseline	18.5	17.0	1.08
		With Scenario 1	18.5	17.0	1.08
		With Scenario 2	18.5	17.0	1.08
	SB	Baseline	20.3	17.0	1.19
		With Scenario 1	20.3	17.0	1.19
		With Scenario 2	20.3	17.0	1.19
Jeffery Way NB On-Ramp (Merge)	NB	Baseline	18.4	17.0	1.08
		With Scenario 1	18.4	17.0	1.08
		With Scenario 2	18.4	17.0	1.08
Lone Tree Way/ Jeffery Way NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	Baseline	19.9	17.0	1.17
		With Scenario 1	2.0	17.0	0.12
		With Scenario 2	19.9	17.0	1.17
	SB	Baseline	18.8	17.0	1.10
		With Scenario 1	18.9	17.0	1.11
		With Scenario 2	18.9	17.0	1.11
Lone Tree Way to Sand Creek Road (Basic)	NB	Baseline	3.4	3.4	1.00
		With Scenario 1	3.4	3.4	1.00
		With Scenario 2	3.4	3.4	1.00
	SB	Baseline	9.7	9.7	1.00
		With Scenario 1	9.7	9.7	1.00
		With Scenario 2	9.7	9.7	1.00
Sand Creek Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	Baseline	18.7	17.0	1.09
		With Scenario 1	18.7	17.0	1.09
		With Scenario 2	18.7	17.0	1.09
	SB	Baseline	20.1	17.0	1.18
		With Scenario 1	20.3	17.0	1.19
		With Scenario 2	20.3	17.0	1.19
Sand Creek Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	Baseline	19.3	17.0	1.13
		With Scenario 1	19.4	17.0	1.14
		With Scenario 2	19.4	17.0	1.14
	SB	Baseline	18.3	17.0	1.07
		With Scenario 1	18.3	17.0	1.07
		With Scenario 2	18.3	17.0	1.07
Sand Creek Road to Balfour Road (Basic)	NB	Baseline	31.8	31.8	1.00
		With Scenario 1	31.8	31.8	1.00
		With Scenario 2	31.8	31.8	1.00
	SB	Baseline	30.1	30.1	1.00
		With Scenario 1	30.1	30.1	1.00
		With Scenario 2	30.1	30.1	1.00

Bold indicates a segment with a delay index greater than the allowable threshold of 2.5.

(a) Travel Time and Free-Flow Time are measured in seconds.
Results were obtained using HCM freeway facility level of service analysis. The travel time is calculated using the average travel speed or free flow speed and segment length.

Table 4–4 Existing plus Approved Projects plus Project Routes of Regional Significance Travel Time Summary (Cont.)

Facility	Dir.	Scenario	Travel Time (a)	Free-Flow Time (a)	Delay Index
PM Peak					
SR-4					
Balfour Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	Baseline	18.3	17.0	1.07
		With Scenario 1	18.3	17.0	1.07
		With Scenario 2	18.3	17.0	1.07
	SB	Baseline	19.4	17.0	1.14
		With Scenario 1	19.4	17.0	1.14
		With Scenario 2	19.4	17.0	1.14
Balfour Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	Baseline	19.7	17.0	1.16
		With Scenario 1	19.7	17.0	1.16
		With Scenario 2	19.7	17.0	1.16
	SB	Baseline	18.4	17.0	1.08
		With Scenario 1	18.4	17.0	1.08
		With Scenario 2	18.4	17.0	1.08
South of Balfour Road (Basic)	NB	Baseline	90.0	90.0	1.00
		With Scenario 1	90.0	90.0	1.00
		With Scenario 2	90.0	90.0	1.00
	SB	Baseline	90.0	90.0	1.00
		With Scenario 1	90.0	90.0	1.00
		With Scenario 2	90.0	90.0	1.00

Bold indicates a segment with a delay index greater than the allowable threshold of 2.5.

(a) Travel Time and Free-Flow Time are measured in seconds.

(b) Results were obtained using HCM freeway facility level of service analysis. The travel time is calculated using the average travel speed or free flow speed and segment length.

5 CUMULATIVE TRAFFIC CONDITIONS

Cumulative Conditions were derived from the latest unconstrained CCTA travel demand model.

5.1 CUMULATIVE LANE CONFIGURATIONS AND TRAFFIC CONTROL

Under Cumulative (2040) Conditions the following circulation improvements are included:

- SR-4 at Balfour Road Interchange (grade-separated)
- Extension of Sand Creek Road to Heidorn Ranch Road (within the boundaries of this project)
- Extension of Sand Creek Road over to Hillcrest Avenue and Deer Valley Road within Antioch
- Widening of Heidorn Ranch Road to four lanes

It is understood that the circulation in the area of the vacant property to the north will be developed over time, but at this time, the circulation infrastructure is unknown and will therefore not be included under this scenario. No additional roadway improvements were identified that are expected to be completed by 2040.

Figure 5-1 illustrates the intersection geometry and traffic control assumed under Cumulative Conditions.

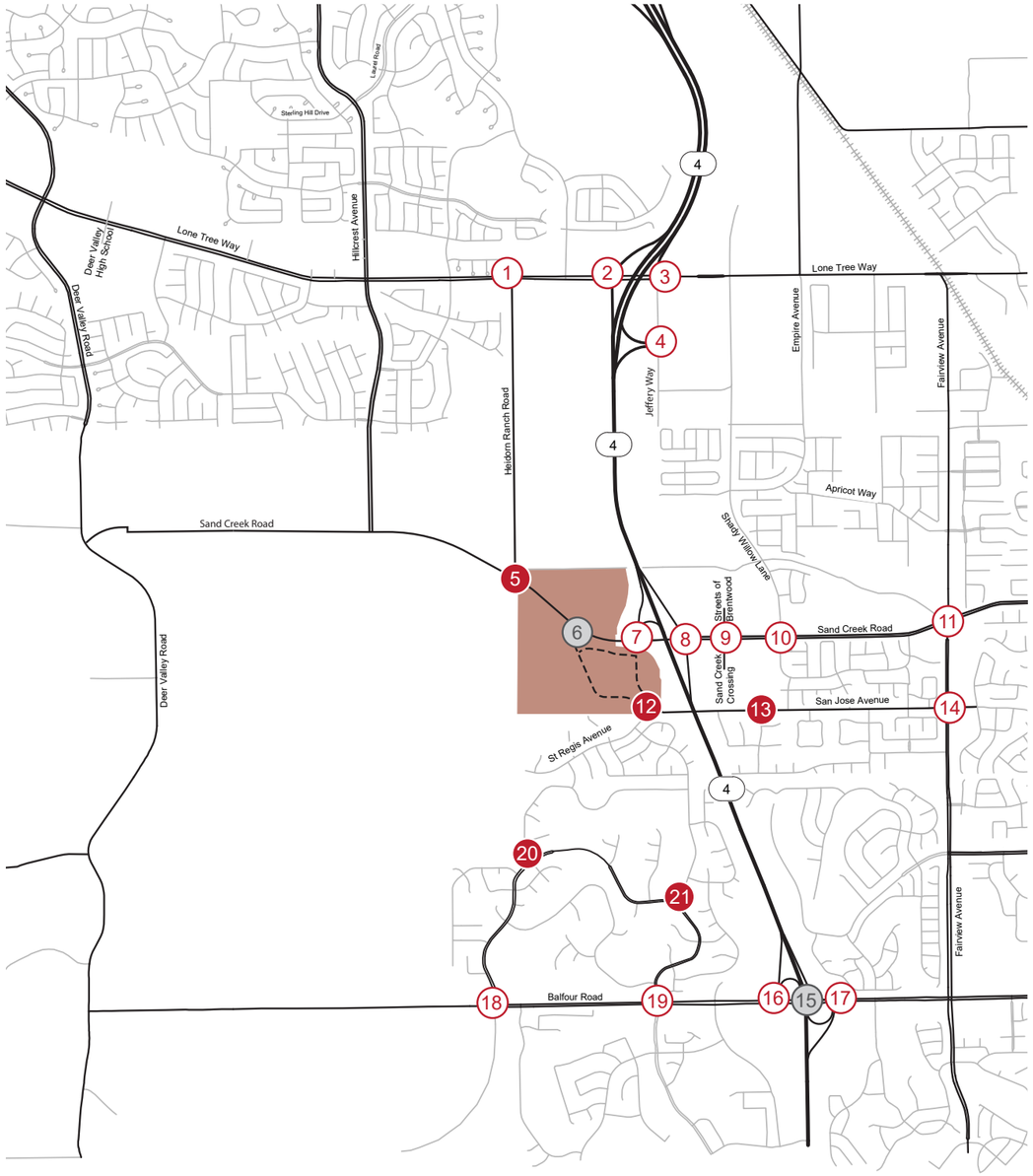
5.2 YEAR 2040 FORECAST MODEL VOLUMES

Year 2040 roadway link volumes from the Contra Costa Transportation Authority (CCTA) travel demand model was obtained from CCTA staff and are provided in **Appendix I**. The model was used to plot bi-directional AM and PM peak-hour traffic volumes on each segment along roadways within the study area. Model output was used to compare year 2015 and year 2040 model forecasts to determine the annual incremental growth in traffic volumes at study intersections. Year 2040 turning movement volumes were calculated by applying the growth increment to the current year (2017) traffic count volumes. Final adjusted forecast volumes were then converted to cumulative conditions intersection turning movement volumes using a traffic modeling standard process commonly referred to as the Furness method. The Furness method uses an iterative process to derive future turning movement volumes based on future year roadway link volumes and an initial estimate of turning percentages (obtained from the 2017 intersection turning movement counts). A final check was performed to ensure cumulative volumes are equal to or greater than existing plus approved projects volumes. The resulting traffic volumes represent Cumulative (2040) conditions and are presented in **Figure 5-2.**

5.3 PROJECT TRIP DISTRIBUTION

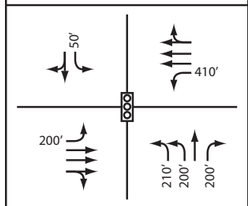
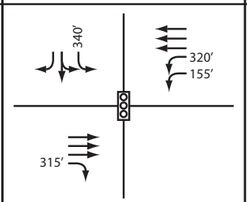
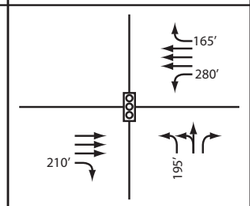
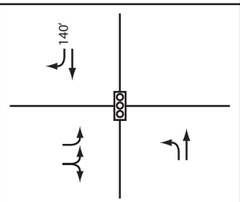
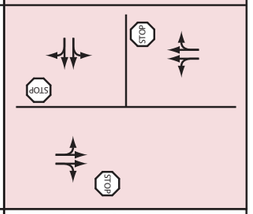
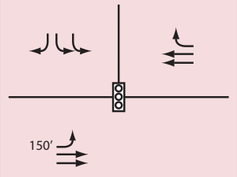
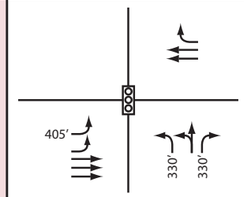
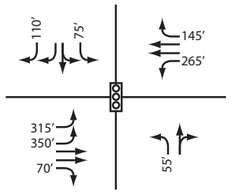
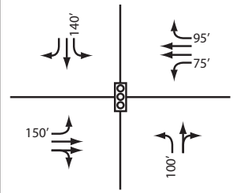
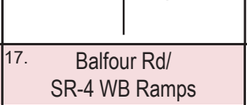
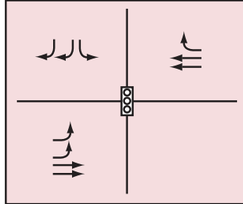
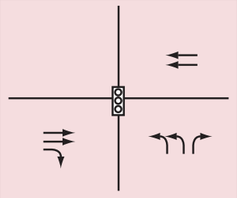
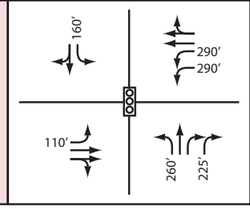
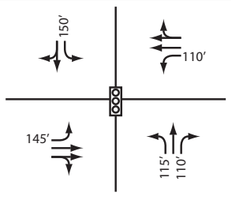
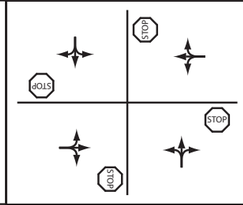
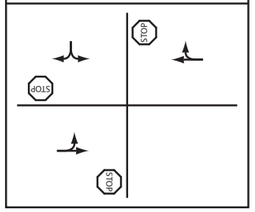
Project distribution would be different under Cumulative Conditions as the surrounding land uses and roadway network develop and change over time. A separate distribution pattern was prepared based on information obtained from the CCTA travel forecast model. **Figure 5-3** presents the traffic distribution assumed for this analysis. Based on the assumed trip distribution, new vehicle trips generated by the project were assigned to the street network as shown in **Figure 5-4** and **Figure 5-5.** The figures represent the total trips on the network, including pass-by and internal capture reductions for the two development scenarios.

Additional project distribution information is provided in **Appendix C**.



N

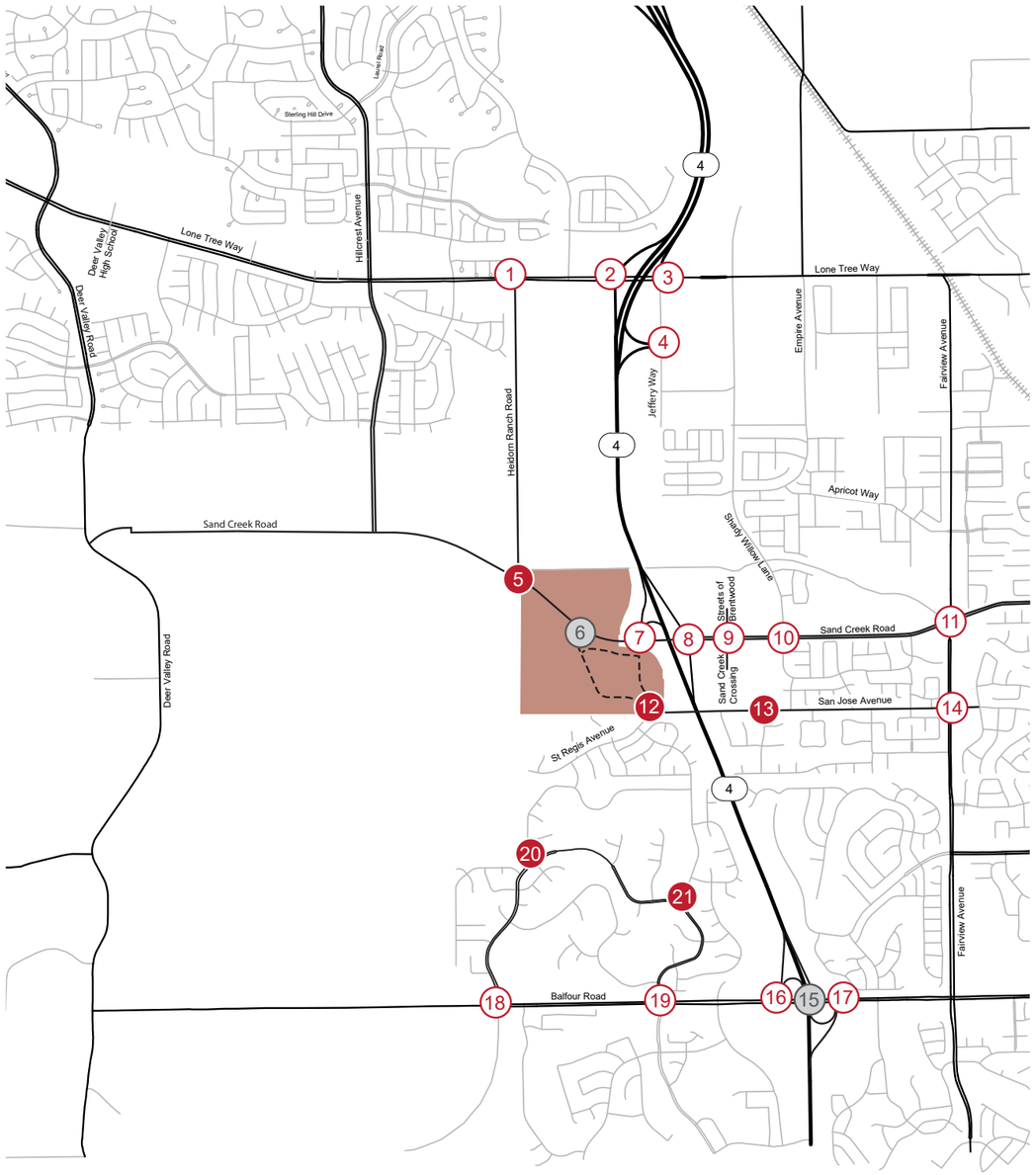
NOT TO SCALE

1. Lone Tree Wy/ Heidorn Ranch Rd/Fairside Wy	2. Lone Tree Wy/ SR-4 EB Ramps	3. Lone Tree Wy/ Jeffery Wy/SR-4 WB On-Ramp	4. SR-4 WB Ramps/ Jeffery Wy	5. Sand Creek Rd/ Heidorn Ranch Rd
				
6. Sand Creek Rd/ San Jose Ave	7. Sand Creek Rd/ SR-4 EB Ramps	8. Sand Creek Rd/ SR-4 WB Ramps	9. Sand Creek Rd/ Sand Creek Crossing	10. Sand Creek Rd/ Shady Willow Ln/Highland Wy
Intersection does not exist under this scenario				
11. Sand Creek Rd/ Fairview Ave	12. San Jose Ave/ St. Regis Ave/Wose Wood Dr	13. San Jose Ave/ Portofino Dr	14. San Jose Ave/ Fairview Ave	15. Balfour Rd/ SR-4
				Intersection does not exist under this scenario
16. Balfour Rd/ SR-4 EB Ramps	17. Balfour Rd/ SR-4 WB Ramps	18. Balfour Rd/ American Ave/W Country Club Dr	19. Balfour Rd/ Foothill Dr/E Country Club Dr	20. W Country Club Dr/ Presidio Dr
				
21. E Country Club Dr/ Roundhill Dr				
				

Legend:

Signalized	XX′ Storage Length
Unsignalized	Project Road
Does Not Exist	Project Site

Figure 5-1
Cumulative Conditions Lane Geometry and Traffic Control



1

	9 / 20	
	7 / 6	
19 / 25	19 / 26	19 / 25
1511 / 1761	Fairside Way	1359 / 1834
68 / 194		60 / 125
		Lone Tree Way
19 / 25		60 / 205
1511 / 1761	Heidorn Ranch Rd	5 / 11
68 / 194		94 / 243

2

858 / 1029		
13 / 3		
983 / 728	SR-4 EB Off-Ramp	1312 / 1874
		220 / 222
		Lone Tree Way
1421 / 1870		
824 / 989	SR-4 EB On-Ramp	

3

	SR-4 WB On-Ramp	735 / 604
		898 / 1163
		73 / 27
		Lone Tree Way
1181 / 2013		759 / 956
661 / 661	Jeffery Way	64 / 68
		463 / 429

4

	647 / 647	
	4 / 4	
	Jeffery Way	
SR-4 WB Ramps		
1249 / 1220		1 / 1
34 / 34		3 / 3

5

48 / 88		23 / 19
	Heidorn Ranch Rd	278 / 343
152 / 124		Sand Creek Rd
17 / 25		
190 / 715		

6

Intersection does not exist under this scenario

7

57 / 102		173 / 243
1081 / 1941	SR-4 SB Ramps	244 / 260
		Sand Creek Rd
104 / 146		
238 / 693		

8

	SR-4 NB On-Ramp	944 / 1048
		362 / 458
		Sand Creek Rd
356 / 383		
963 / 2251	SR-4 NB Off-Ramp	55 /45
		156 /315

9

100 /354		106 / 180
23 /77		876 / 757
57 /164	Streets of Brentwood	42 / 107
		Sand Creek Rd
139 / 422		
818 / 1339	Sand Creek Crossing	146 / 188
118 / 280		41 /68
		36 /89

10

166 /281		231 / 138
116 /105		902 / 932
252 /202	Shady Willow Ln	22 / 20
		Sand Creek Rd
163 / 333		
791 / 1384	Highland Way	84 /67
55 / 97		99 /78
		19 /7

11

80 /96		58 / 84
353 /368		737 / 709
91 /134	Fairview Ave	183 / 131
		Sand Creek Rd
46 / 148		
703 / 987		474 /427
355 / 590		296 /330
		204 / 149

12

		432 / 344
		San Jose Ave
	St. Regis Ave	288 /275

13

28 / 0		1 / 11
2 / 3		400 / 293
78 / 7	Dwy	15 / 39
		San Jose Ave
0 / 3		
371 / 224	Portofino Drive	34 / 5
7 / 6		24 / 12

14

137 / 94		100 / 74
606 / 736		87 / 19
60 / 97	Fairview Ave	50 / 19
		San Jose Ave
147 / 103		
55 / 27		154 / 184
176 / 165		582 / 594
		19 / 44

15

Intersection does not exist under this scenario

16

415 / 161		162 / 811
469 / 323	SR-4 SB Ramps	1320 / 1167
		Balfour Rd
339 / 437		
1292 / 713		

17

		2295 / 1695
		Balfour Rd
1647 / 930		
669 / 102	SR-4 NB Ramps	174 / 488
		77 / 610

18

12 / 254		242 / 99
471 / 103		460 / 269
256 / 136	W Country Club Dr	791 / 212
		Balfour Rd
26 / 269		
332 / 401		123 / 144
354 / 152		213 / 90
	American Ave	728 / 192

19

253 / 24		77 / 212
148 / 44		965 / 577
258 / 156	E Country Club Dr	65 / 152
		Balfour Rd
53 / 23		
973 / 662		212 / 37
122 / 51		108 / 24
	Foothill Dr	113 / 84

20

282 / 165		5 / 5
11 / 10		34 / 26
9 / 3	Presidio Drive	4 / 1
		W Country Club Dr
96 / 137		
28 / 33		3 / 4
		5 / 7
		3 / 3

21

12 / 20		105 / 95
139 / 93	Roundhill Dr	35 / 40
		E Country Club Dr
21 / 27		
84 / 33		

Legend:

- Signalized
- Unsignalized
- Does Not Exist
- X/Y AM/ PM Peak Hour Turning Volume
- Project Road
- Project Site

NOT TO SCALE

Figure 5-2
Cumulative Conditions Peak Hour Turning Movement Volumes

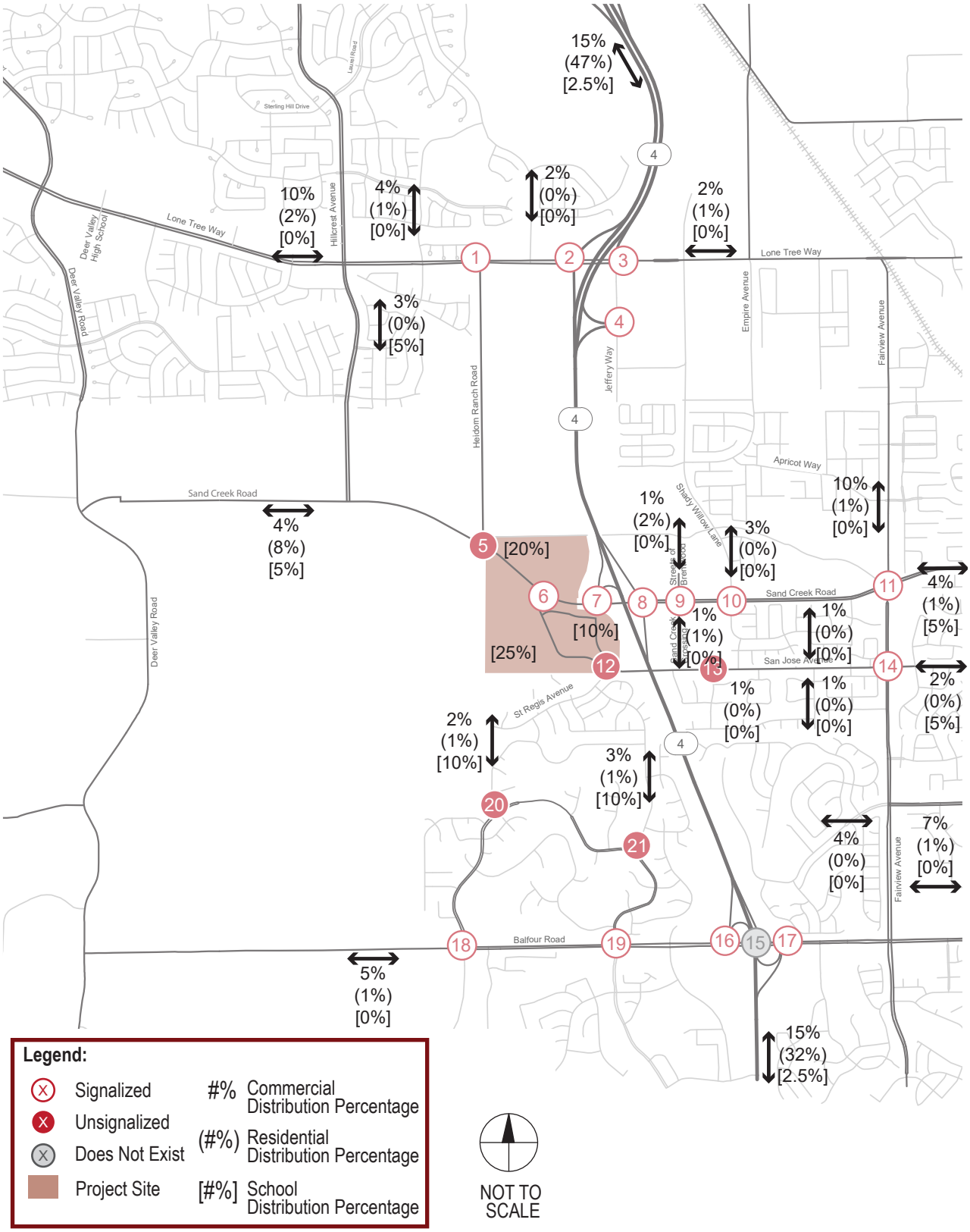
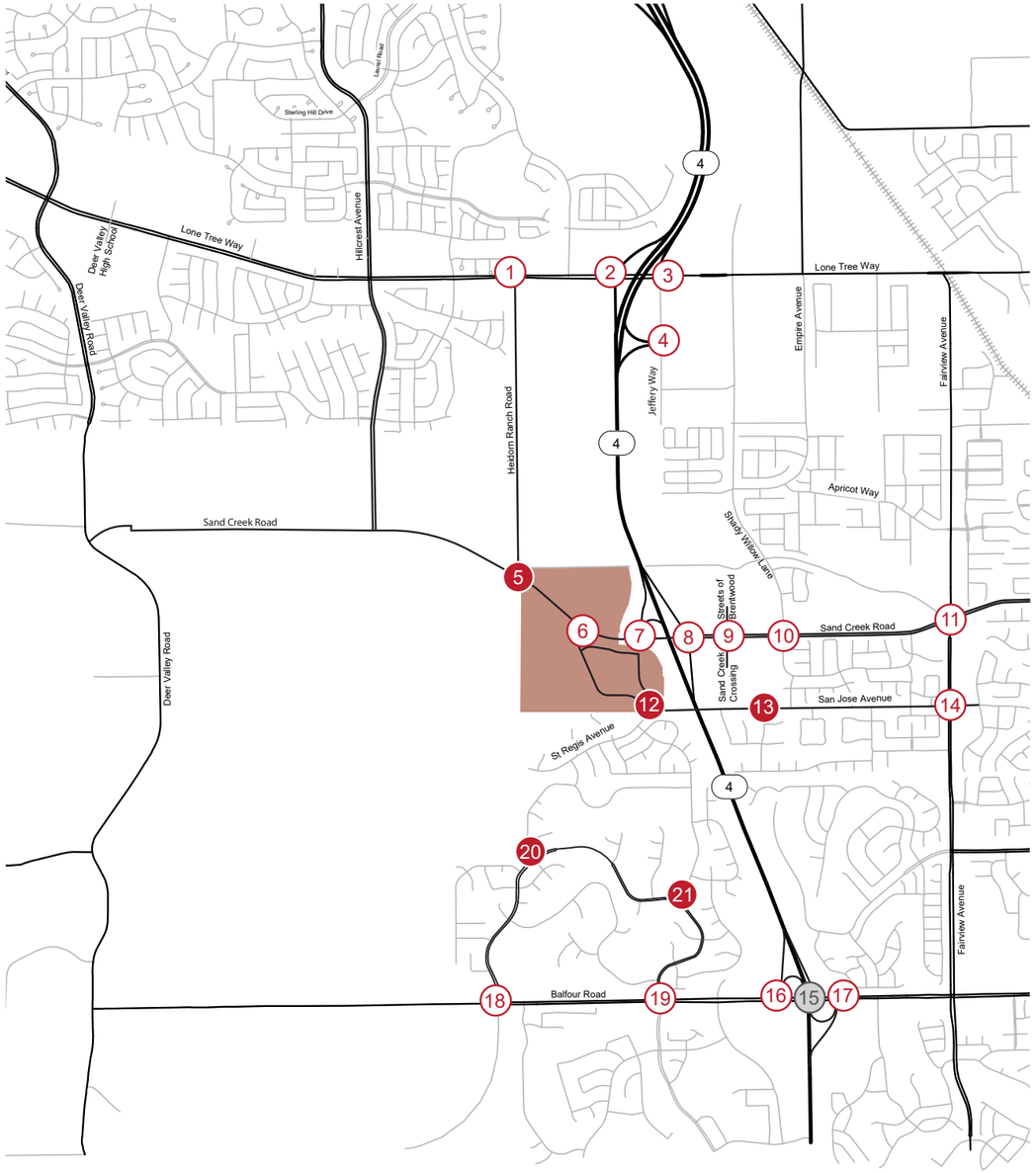


Figure 5-3
Project Trip Distribution (Cumulative Conditions)



1

	Fairside Way ⇦ 14 / 33	Lone Tree Way
13 / 35 ⇨	Heidorn Ranch Rd	

2

	SR-4 EB Off-Ramp ⇦ 16 / 41, ⇖ 4 / 10	Lone Tree Way
16 / 42 ⇗	SR-4 EB On-Ramp	

3

	SR-4 WB On-Ramp ⇦ 4 / 10	Lone Tree Way
Jeffery Way ⇗ 16 / 41, ⇘ 5 / 10		

4

	Jeffery Way	
SR-4 WB Ramps 20 / 51 ⇦		

5

	Heidorn Ranch Rd ⇦ 29 / 69	Sand Creek Rd
27 / 74 ⇨		

6

18 / 92, 28 / 77, 111 / 344 ⇦	San Jose Ave ⇗ 125 / 407, ⇖ 0 / -31, ⇖ 56 / 162	Sand Creek Rd
22 / 64, 0 / -3, 5 / 15 ⇩		⇗ 11 / 10, ⇧ 14 / 37, ⇖ 139 / 109

7

79 / 244 ⇦	SR-4 SB Ramps ⇧ 102 / 294	Sand Creek Rd
86 / 154, 164 / 295 ⇩		

8

	SR-4 NB On-Ramp ⇦ 39 / 106	Sand Creek Rd
128 / 188, 36 / 107 ⇩	SR-4 NB Off-Ramp ⇗ 63 / 187	

9

3 / 10 ⇦	Streets of Brentwood ⇦ 34 / 90	Sand Creek Rd
7 / 7, 26 / 94, 4 / 6 ⇩	Sand Creek Crossing ⇗ 2 / 7	

10

4 / 11 ⇦	Shady Willow Ln ⇦ 30 / 79	Sand Creek Rd
3 / 12, 23 / 82 ⇩	Highland Way	

11

15 / 40 ⇦	Fairview Ave ⇧ 7 / 18	Sand Creek Rd
12 / 42, 6 / 18, 4 / 20 ⇩	⇗ 7 / 18	

12

47 / 28, 19 / 3, 3 / 2 ⇦	Rose Wood Dr ⇗ 1 / 3, ⇧ 7 / 18	San Jose Ave
14 / 50, 4 / 20, 60 / 20 ⇩	St. Regis Ave ⇗ 7 / 18, ⇧ 2 / 6	

13

	Dwy ⇦ 7 / 18	San Jose Ave
6 / 18, 1 / 4 ⇩	Portofino Drive ⇦ 1 / 4	

14

3 / 16, 1 / 4 ⇦	Fairview Ave ⇗ 1 / 4, ⇧ 1 / 4	San Jose Ave
1 / 4, 5 / 10 ⇩		⇧ 4 / 10, ⇖ 6 / 15

15

Intersection does not exist under this scenario

16

7 / 22, 4 / 20 ⇦	SR-4 SB Ramps	Balfour Rd
28 / 0, 44 / 21 ⇩		

17

		⇦ 7 / 18 Balfour Rd
44 / 21 ⇨	SR-4 NB Ramps	

18

1 / 4, 42 / 0 ⇦	W Country Club Dr ⇦ 8 / 26, ⇖ 28 / 0	Balfour Rd
1 / 4, 9 / 25 ⇩	American Ave ⇗ 6 / 0, ⇧ 64 / 0	

19

29 / 4 ⇦	E Country Club Dr ⇦ 7 / 22	Balfour Rd
1 / 4, 72 / 21 ⇩	Foothill Dr	

20

15 / 4 ⇦	Presidio Drive ⇦ 28 / 0	W Country Club Dr
1 / 4 ⇩		

21

28 / 0 ⇦	Roundhill Dr ⇦ 1 / 4	E Country Club Dr
29 / 4 ⇨		

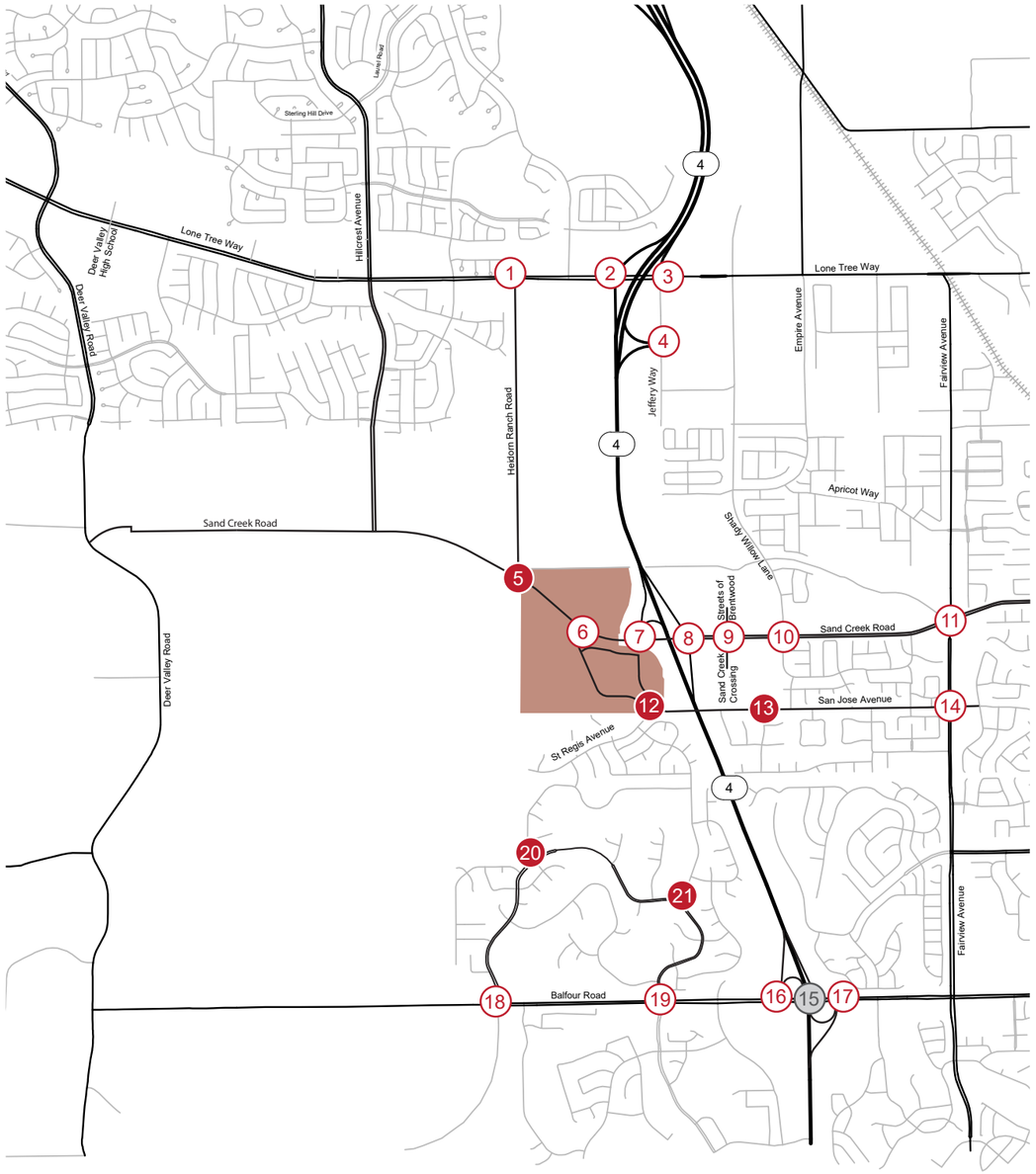
Legend:

- (X) Signalized
- X Unsignalized
- (X) Does Not Exist
- X/Y AM/ PM Peak Hour Turning Volume
- Project Road
- Project Site

NOT TO SCALE

Figure 5-4

Total Project Generated Traffic Volumes for Development Scenario 1 (Cumulative Conditions)



1

	Fairside Way ⇦	13 / 32
		Lone Tree Way
12 / 34 ⇩	Heidorn Ranch Rd	

2

	SR-4 EB Off-Ramp ⇦ ⇦	15 / 40 4 / 10
		Lone Tree Way
15 / 41 ⇨	SR-4 EB On-Ramp	

3

	SR-4 WB On-Ramp ⇦	4 / 10
		Lone Tree Way
	Jeffery Way ⇨ ⇨	15 / 40 4 / 9

4

	Jeffery Way	
SR-4 WB Ramps ⇨		

5

	11 / 3 ⇦ Heidorn Ranch Rd ⇦	9 / 3 36 / 71
		Sand Creek Rd
37 / 75 ⇩		

6

	17 / 92 71 / 90 105 / 340 ⇦ ⇩ ⇦ San Jose Ave	123 / 399 0 / -31 71 / 146 ⇦ ⇦ ⇦
		Sand Creek Rd
21 / 63 0 / -3 26 / 19 ⇨ ⇩ ⇨		28 / 16 50 / 51 141 / 104 ⇨ ⇨ ⇨

7

	80 / 228 ⇩ SR-4 SB Ramps	115 / 286 ⇦
		Sand Creek Rd
83 / 149 163 / 289 ⇨ ⇨		

8

	SR-4 NB On-Ramp	50 / 107 ⇦
		Sand Creek Rd
120 / 180 43 / 109 ⇩ ⇩	SR-4 NB Off-Ramp	65 / 178 ⇩

9

	2 / 9 ⇩ Streets of Brentwood	44 / 92 ⇦
		Sand Creek Rd
6 / 7 34 / 97 3 / 5 ⇩ ⇩ ⇩	Sand Creek Crossing	2 / 7 ⇩

10

	4 / 11 ⇩ Shady Willow Ln	40 / 81 ⇦
		Sand Creek Rd
3 / 12 31 / 85 ⇩ ⇩	Highland Way	

11

	15 / 40 ⇩ Fairview Ave	11 / 19 ⇦
		Sand Creek Rd
11 / 41 9 / 18 4 / 20 ⇩ ⇩ ⇩		7 / 18 ⇩

12

	42 / 25 53 / 17 11 / 4 ⇩ ⇩ ⇩ Rose Wood Dr	12 / 6 7 / 18 ⇦ ⇩
		San Jose Ave
13 / 44 4 / 20 53 / 20 ⇩ ⇩ ⇩	St. Regis Ave	7 / 18 ⇩ ⇦ 46 / 18

13

	Dwy	18 / 21 ⇦
		San Jose Ave
14 / 20 1 / 4 ⇩ ⇩	Portofino Drive	1 / 4 ⇩

14

	3 / 16 1 / 4 ⇩ ⇩ Fairview Ave	1 / 4 5 / 5 ⇦ ⇦
		San Jose Ave
5 / 5 4 / 9 ⇩ ⇩		4 / 10 6 / 15 ⇩ ⇩

15

Intersection does not exist under this scenario

16

	6 / 21 4 / 20 ⇩ ⇩ SR-4 SB Ramps	Balfour Rd
25 / 0 40 / 21 ⇩ ⇩		

17

		7 / 18 ⇦
		Balfour Rd
40 / 21 ⇩	SR-4 NB Ramps	

18

	1 / 4 37 / 0 ⇦ ⇩ W Country Club Dr	7 / 25 25 / 0 ⇦ ⇦
		Balfour Rd
1 / 4 9 / 25 ⇨ ⇨	American Ave	5 / 0 56 / 0 ⇨ ⇨

19

	26 / 4 ⇩ E Country Club Dr	6 / 21 ⇦
		Balfour Rd
1 / 4 64 / 21 ⇨ ⇨	Foothill Dr	

20

	22 / 7 ⇩ Presidio Drive	25 / 0 ⇦
		W Country Club Dr
12 / 7 ⇨		

21

	25 / 0 35 / 7 ⇩ ⇩ Roundhill Dr	12 / 7 ⇦
		E Country Club Dr

Legend:

- (X) Signalized
- X Unsignalized
- (X) Does Not Exist
- X/Y AM/ PM Peak Hour Turning Volume
- Project Road
- Project Site

NOT TO SCALE

Figure 5-5

Total Project Generated Traffic Volumes for Development Scenario 2 (Cumulative Conditions)

5.4 CUMULATIVE INTERSECTION LOS

Cumulative traffic volumes were evaluated at study intersections. As shown in **Table 5-1,** the following intersections would operate below acceptable LOS under Cumulative Conditions:

- #2 – SR-4 at Lone Tree Way
  - AM (LOS F) and PM (LOS F) Peaks
- #11 – Fairview Avenue at Sand Creek Road
  - AM (LOS E) and PM (LOS F) Peaks
- #14 – Fairview Avenue at San Jose Avenue
  - PM (LOS E) Peak
- #18 – W Country Club Drive/ American Avenue at Balfour Road
  - AM (LOS F) Peak

The intersections listed above would operate below acceptable thresholds regardless of the proposed project. Analysis sheets are provided in the **Appendix J.**

5.5 CUMULATIVE FREEWAY ANALYSIS

Cumulative volumes were evaluated at SR-4. Results are presented in **Table 5-2.** As shown in the Table, SR-4 between Lone Tree Way and Balfour Rad would function within acceptable standards under Cumulative Conditions.

Analysis sheets are provided in the **Appendix J.**

Table 5–1 Cumulative Intersection LOS Summary

#	Intersection	Traffic Control	Peak Hour	Delay (a)	LOS
1	Lone Tree Way / Heidorn Ranch Road/Fairside Way	Signal	AM	12.5	B
			PM	26.1	C
2	Lone Tree Way / SR-4 SB Ramps	Signal	AM	108.1	**F**
			PM	137.2	**F**
3	Lone Tree Way / Jeffrey Way/SR-4 NB Entrance Ramp	Signal	AM	39.5	D
			PM	28.3	C
4	Jeffrey Way / SR-4 NB Ramps	Signal	AM	49.1	D
			PM	47.2	D
5	Sand Creek Road / Heidorn Ranch Road (Future	SSSC	AM	*Intersection does not exist in this scenario*	
			PM		
6	Sand Creek Road / San Jose Avenue (Future)	Signal	AM	*Intersection does not exist in this scenario*	
			PM		
7	Sand Creek Road / SR-4 SB Ramps	Signal	AM	14.3	B
			PM	39.1	D
8	Sand Creek Road / SR-4 NB Ramps	Signal	AM	15.8	B
			PM	35.0	D
9	Sand Creek Road / Sand Creek Crossing/Streets of Brentwood	Signal	AM	18.1	B
			PM	37.2	D
10	Sand Creek Road / Shady Willow Lane/Highland Way	Signal	AM	23.6	C
			PM	43.8	D
11	Sand Creek Road / Fairview Avenue	Signal	AM	71.1	**E**
			PM	89.4	**F**
12	San Jose Avenue / St. Regis Avenue	SSSC	AM	0.0	A
			PM	0.0	A
13	San Jose Avenue / Portofino Drive	SSSC	AM	15.1	C
			PM	10.2	B
14	San Jose Avenue/ Fairview Avenue	Signal	AM	54.7	D
			PM	65.4	**E**
15	Balfour Road / SR-4	Signal	AM	*Intersection does not exist in this scenario*	
			PM		
16	Balfour Road / SR-4 SB Ramps (Future)	Signal	AM	29.9	C
			PM	47.4	D
17	Balfour Road / SR-4 NB Ramps (Future)	Signal	AM	7.2	A
			PM	43.5	D
18	Balfour Road / American Avenue / West Country Club Drive	Signal	AM	88.2	**F**
			PM	23.1	C
19	Balfour Road / Foothill Drive / E Country Club Drive	Signal	AM	45.4	D
			PM	16.9	B
20	West Country Club / Presidio Drive	AWSC	AM	8.9	B
			PM	8.4	A
21	East Country Club / Roundhill Drive	AWSC	AM	8.4	A
			PM	7.9	A

Notes: Signal = Traffic Signal, SSSC = Side Street Stop Control, AWSC = All Way Stop Control. **Bold** indicates substandard per jurisdiction minimum thresholds.

(a) Delay is measured in seconds.

Table 5–2 Cumulative Routes of Regional Significance Travel Time Summary

Facility	Direction	Travel Time (a)	Free-Flow Time (a)	Delay Index
AM Peak				
SR-4				
North of Lone Tree Way (Basic)	NB	11.6	11.4	1.02
	SB	17.2	14.8	1.17
Lone Tree Way NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	19.4	17.0	1.14
	SB	20.3	17.0	1.19
Jeffery Way NB On-Ramp (Merge)	NB	18.8	17.0	1.10
Lone Tree Way/ Jeffery Way NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	19.9	17.0	1.17
	SB	19.4	17.0	1.14
Lone Tree Way to Sand Creek Road (Basic)	NB	3.4	3.4	1.01
	SB	9.9	9.7	1.02
Sand Creek Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	19.4	17.0	1.14
	SB	19.9	17.0	1.17
Sand Creek Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	19.3	17.0	1.13
	SB	18.6	17.0	1.09
Sand Creek Road to Balfour Road (Basic)	NB	31.8	31.8	1.00
	SB	30.1	30.1	1.00
Balfour Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	18.5	17.0	1.08
	SB	19.7	17.0	1.15
Balfour Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	19.3	17.0	1.13
	SB	18.5	17.0	1.08
South of Balfour Road (Basic)	NB	90.0	90.0	1.00
	SB	90.0	90.0	1.00

Bold indicates a segment with a delay index greater than the allowable threshold of 2.5.

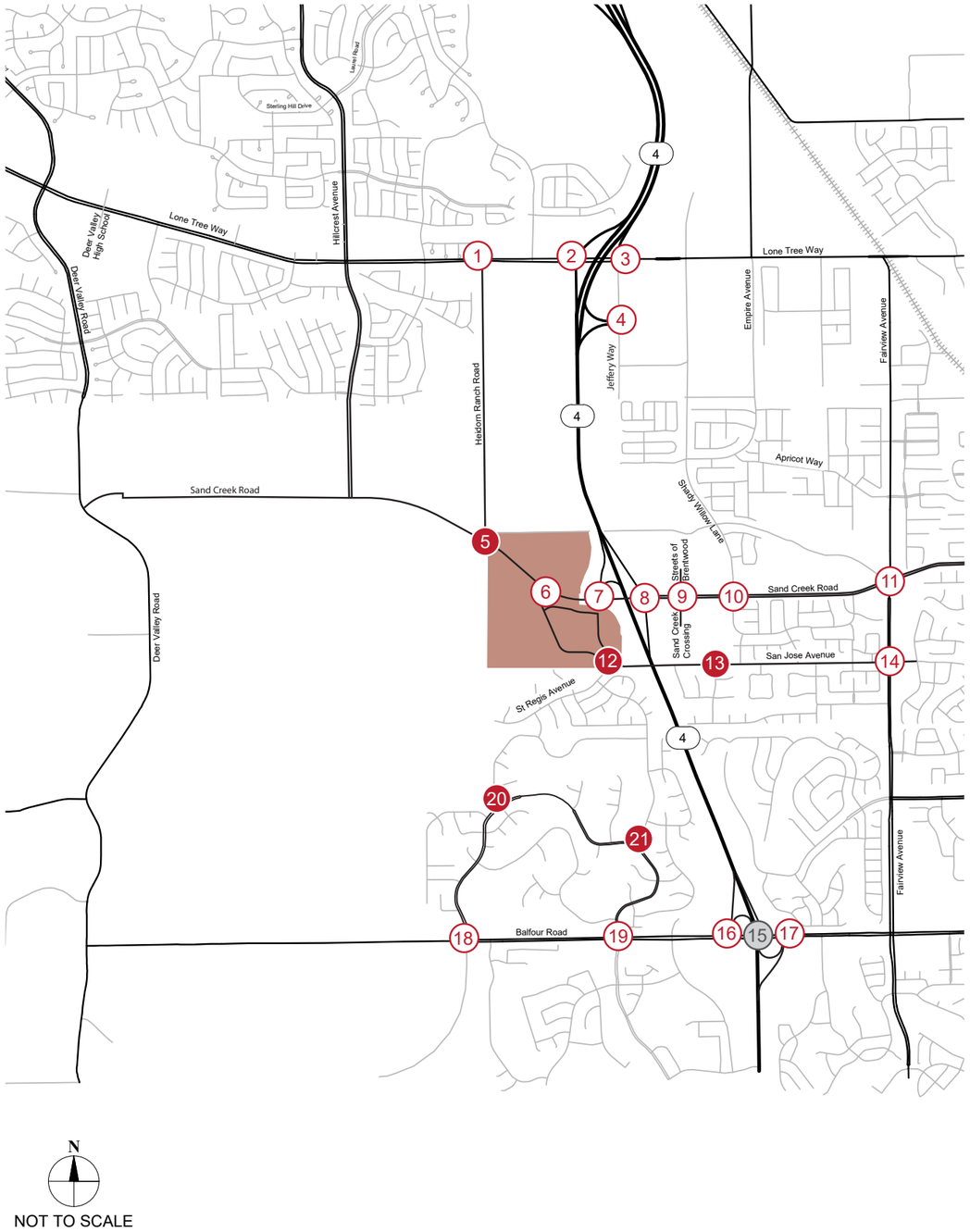
(a) Travel Time and Free-Flow Time are measured in seconds.
Results were obtained using HCM freeway facility level of service analysis. The travel time is calculated using the average travel speed or free flow speed and segment length.

Table 5–2 Cumulative Routes of Regional Significance Travel Time Summary (Cont.)

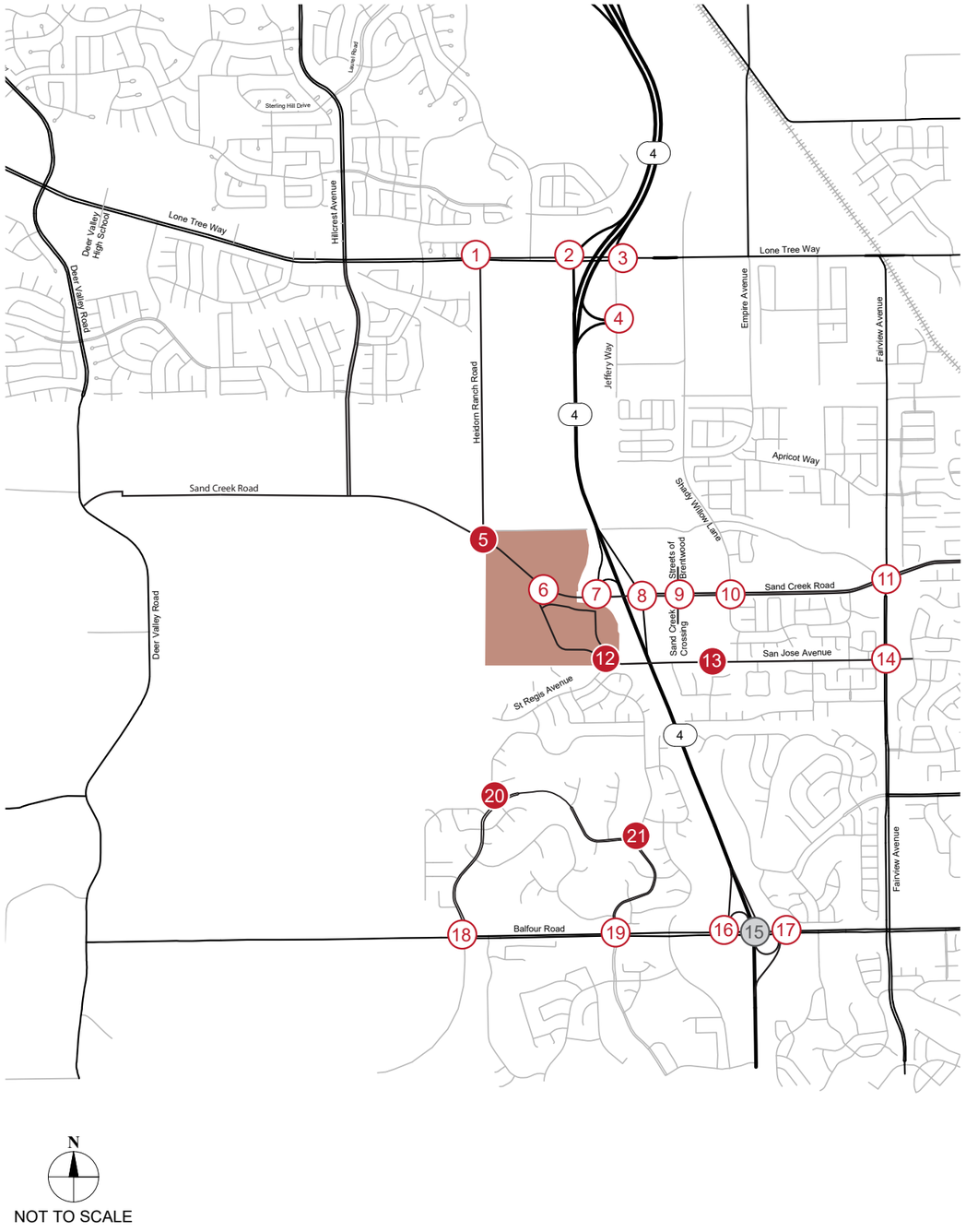
Facility	Direction	Travel Time (a)	Free-Flow Time (a)	Delay Index
PM Peak				
SR-4				
North of Lone Tree Way (Basic)	NB	11.4	11.4	1.00
	SB	17.3	14.8	1.17
Lone Tree Way NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	18.8	17.0	1.10
	SB	20.3	17.0	1.19
Jeffery Way NB On-Ramp (Merge)	NB	18.5	17.0	1.09
Lone Tree Way/ Jeffery Way NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	19.9	17.0	1.17
	SB	20.1	17.0	1.18
Lone Tree Way to Sand Creek Road (Basic)	NB	3.4	3.4	1.00
	SB	10.5	9.7	1.08
Sand Creek Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	19.0	17.0	1.11
	SB	20.0	17.0	1.17
Sand Creek Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	19.3	17.0	1.13
	SB	18.5	17.0	1.09
Sand Creek Road to Balfour Road (Basic)	NB	31.8	31.8	1.00
	SB	30.2	30.1	1.00
Balfour Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	18.3	17.0	1.08
	SB	19.4	17.0	1.14
Balfour Road NB Off Ramp (Diverge) / SB On-Ramp (Merge)	NB	19.8	17.0	1.16
	SB	19.0	17.0	1.11
South of Balfour Road (Basic)	NB	90.0	90.0	1.00
	SB	90.6	90.0	1.01

Bold indicates a segment with a delay index greater than the allowable threshold of 2.5.

(a) Travel Time and Free-Flow Time are measured in seconds.
Results were obtained using HCM freeway facility level of service analysis. The travel time is calculated using the average travel speed or free flow speed and segment length.


Lone Tree Way
Deer Valley High School
Deer Valley Road
Hillcrest Avenue
Sterling Hill Drive
Lone Tree Road
Heidorn Ranch Road
Jeffery Way
Empire Avenue
Fairview Avenue
Apricot Way
Shady Willow Lane
Streets of Brentwood
Sand Creek Crossing
Sand Creek Road
San Jose Avenue
St Regis Avenue
Balfour Road
Deer Valley Road
1
2
3
4
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N
NOT TO SCALE

| 1 | | |



1

	9 / 20 7 / 6 19 / 26	Fairside Way
		19 / 25 1372 / 1866 60 / 125 Lone Tree Way
19 / 25 1523 / 1795 68 / 194	Heidorn Ranch Rd	60 / 205 5 / 11 94 / 243

2

	858 / 1029 13 / 3 983 / 728	SR-4 EB Off-Ramp
		1327 / 1914 224 / 232 Lone Tree Way
1421 / 1870 839 / 1030	SR-4 EB On-Ramp	

3

		SR-4 WB On-Ramp
		735 / 604 902 / 1173 73 / 27 Lone Tree Way
1181 / 2013 661 / 661	Jeffery Way	774 / 996 64 / 68 467 / 438

4

	647 / 647 4 / 4	Jeffery Way
1268 / 1270 34 / 34	SR-4 WB Ramps	1 / 1 3 / 3

5

48 / 88		
163 / 127	Heidorn Ranch Rd	32 / 22 314 / 414 Sand Creek Rd
17 / 25 227 / 790		

6

17 / 92 71 / 90 105 / 340	San Jose Ave	123 / 399 301 / 331 71 / 146 Sand Creek Rd
21 / 63 342 / 836 26 / 19		28 / 16 50 / 51 141 / 104

7

137 / 330		
1081 / 1941	SR-4 SB Ramps	173 / 243 359 / 546 Sand Creek Rd
187 / 295 401 / 982		

8

		SR-4 NB On-Ramp
		944 / 1048 412 / 565 Sand Creek Rd
476 / 563 1006 / 2360	SR-4 NB Off-Ramp	120 / 223 156 / 315

9

102 / 363 23 / 77 57 / 164	Streets of Brentwood	
		106 / 180 920 / 849 42 / 107 Sand Creek Rd
145 / 429 852 / 1436 121 / 285	Sand Creek Crossing	148 / 195 41 / 68 36 / 89

10

170 / 292 116 / 105 252 / 202	Shady Willow Ln	
		231 / 138 942 / 1013 22 / 20 Sand Creek Rd
166 / 345 822 / 1469 55 / 97	Highland Way	84 / 67 99 / 78 19 / 7

11

95 / 136 353 / 368 91 / 134	Fairview Ave	
		58 / 84 748 / 728 183 / 131 Sand Creek Rd
57 / 189 712 / 1005 359 / 610		481 / 445 296 / 330 204 / 149

12

42 / 25 53 / 17 11 / 4	Rose Wood Dr	
		12 / 6 7 / 18 432 / 344 San Jose Ave
13 / 44 4 / 20 53 / 20	St. Regis Ave	7 / 18 46 / 18 288 / 275

13

28 / 0 2 / 3 78 / 7	Dwy	
		1 / 11 418 / 314 15 / 39 San Jose Ave
0 / 3 385 / 244 8 / 10	Portofino Drive	35 / 9 24 / 12

14

137 / 94 609 / 752 61 / 101	Fairview Ave	
		101 / 78 92 / 24 50 / 19 San Jose Ave
147 / 103 60 / 32 180 / 174		158 / 194 588 / 609 19 / 44

15

Intersetion does not exist under this scenario

16

421 / 182		
473 / 343	SR-4 SB Ramps	162 / 811 1320 / 1167 Balfour Rd
364 / 437 1332 / 734		

17

		2302 / 1713 Balfour Rd
1647 / 930 709 / 123	SR-4 NB Ramps	174 / 488 77 / 610

18

13 / 258 508 / 103 256 / 136	W Country Club Dr	
		242 / 99 467 / 294 816 / 212 Balfour Rd
27 / 273 341 / 426 354 / 152	American Ave	128 / 144 213 / 90 784 / 192

19

279 / 28 148 / 44 258 / 156	E Country Club Dr	
		77 / 212 971 / 598 65 / 152 Balfour Rd
54 / 27 1037 / 683 122 / 51	Foothill Dr	212 / 37 108 / 24 113 / 84

20

304 / 172 11 / 10 9 / 3	Presidio Drive	
		5 / 5 59 / 26 4 / 1 W Country Club Dr
108 / 144 28 / 33		3 / 4 5 / 7 3 / 3

21

37 / 20 174 / 100	Roundhill Dr	
		117 / 102 35 / 40 E Country Club Dr
21 / 27 84 / 33		

Legend:

- Signalized
- Unsignalized
- Does Not Exist
- X/Y AM/ PM Peak Hour Turning Volume
- Project Road
- Project Site

NOT TO SCALE

Figure 5-7

Cumulative Plus Project Conditions Peak Hour Turning Movement Volumes for Development Scenario 2

5.6 CUMULATIVE PLUS PROJECT INTERSECTION LOS

Cumulative plus Project traffic volumes are presented in **Figure 5-5** and were evaluated at the study intersections. As shown in **Table 5-3**, the following study intersections are forecasted to operate below acceptable LOS:

Development Scenario 1

- # 2 – SR-4 SB Ramps at Lone Tree Way
  - AM (Increased delay, LOS F) and PM (Increased delay, LOS F) Peaks – Significant Impact
- #7 – SR-4 SB Ramps at Sand Creek Rd
  - PM (Worsened from LOS D to LOS E) Peak – Significant Impact
- #11 – Fairview Avenue at Sand Creek Road
  - AM (Increased delay, LOS E) and PM (Increased delay, LOS F) Peaks – Significant Impact
- #14 – Fairview Avenue at San Jose Avenue
  - AM (Worsened from LOS D to LOS E) and PM (Increased delay, LOS E) Peaks – Significant Impact
- #18 – W Country Club Drive/ American Avenue at Balfour Road
  - AM (Increased delay, LOS F) Peaks – Significant Impact

Development Scenario 2

- # 2 – SR-4 SB Ramps at Lone Tree Way
  - AM (Increased delay, LOS F) and PM (Increased delay, LOS F) Peaks – Significant Impact
- #7 – SR-4 SB Ramps at Sand Creek Rd
  - PM (Worsened from LOS D to LOS E) Peak – Significant Impact
- #11 – Fairview Avenue at Sand Creek Road
  - AM (Increased delay, LOS E) and PM (Increased delay, LOS F) Peaks – Significant Impact
- #14 – Fairview Avenue at San Jose Avenue
  - AM (Worsened from LOS D to LOS E) and PM (Increased delay, LOS E) Peaks – Significant Impact
- #18 – W Country Club Drive/ American Avenue at Balfour Road
  - AM (Increased delay, LOS F) Peaks – Significant Impact

Analysis sheets are provided in the **Appendix K.**

5.7 CUMULATIVE PLUS PROJECT FREEWAY ANALYSIS

Traffic operations were evaluated at SR-4 under Cumulative plus Project Conditions. Results of the analysis are presented in **Table 5-4.** As shown in the Table, SR-4 between Lane Tree Way and Balfour Road does function within acceptable standards under Cumulative plus Project Conditions.

Analysis sheets are provided in the **Appendix K.**

Table 5–3 Cumulative plus Project Intersection LOS Summary

#	Intersection	Traffic Control	Peak Hour	Baseline		Plus Project (Scenario 1)			Plus Project (Scenario 2)		
				Delay (a)	LOS	Delay (a)	LOS	Δ (b)	Delay (a)	LOS	Δ (b)
1	Lone Tree Way / Heidorn Ranch Road/Fairside Way	Signal	AM	12.5	B	12.5	B	0.0	12.5	B	0.0
			PM	26.1	C	26.5	C	0.4	26.5	C	0.4
2	Lone Tree Way / SR-4 SB Ramps	Signal	AM	108.1	**F**	109.4	**F**	1.3	109.4	**F**	1.3
			PM	137.2	**F**	142.7	**F**	5.5	142.7	**F**	5.5
3	Lone Tree Way / Jeffrey Way/SR-4 NB Entrance Ramp	Signal	AM	39.5	D	39.9	D	0.4	39.9	D	0.4
			PM	28.3	C	29.5	C	1.2	29.5	C	1.2
4	Jeffrey Way / SR-4 NB Ramps	Signal	AM	49.1	D	50.4	D	1.3	50.4	D	1.3
			PM	47.2	D	50.8	D	3.6	50.6	D	3.4
5	Sand Creek Road / Heidorn Ranch Road (Future	SSSC	AM	*Intersection does not exist in this scenario*		10.9	C	-	10.9	B	-
			PM			29.0	D		29.5	D	
6	Sand Creek Road / San Jose Avenue (Future)	Signal	AM	*Intersection does not exist in this scenario*		9.6	A	-	9.6	A	-
			PM			12.5	B		12.2	B	
7	Sand Creek Road / SR-4 SB Ramps	Signal	AM	14.3	B	20.4	C	6.1	20.4	C	6.1
			PM	39.1	D	70.4	**E**	31.3	68.9	**E**	29.8
8	Sand Creek Road / SR-4 NB Ramps	Signal	AM	15.8	B	28.6	C	12.8	28.6	C	12.8
			PM	35.0	D	53.5	D	18.5	52.5	D	17.5
9	Sand Creek Road / Sand Creek Crossing/Streets of Brentwood	Signal	AM	18.1	B	18.4	B	0.3	18.4	B	0.3
			PM	37.2	D	43.5	D	6.3	43.6	D	6.4
10	Sand Creek Road / Shady Willow Lane/Highland Way	Signal	AM	23.6	C	24.4	C	0.8	24.4	C	0.8
			PM	43.8	D	50.4	D	6.6	50.6	D	6.8
11	Sand Creek Road / Fairview Avenue	Signal	AM	71.1	**E**	72.9	**E**	1.8	72.9	**E**	1.8
			PM	89.4	**F**	96.1	**F**	6.7	96.0	**F**	6.6
12	San Jose Avenue / St. Regis Avenue	SSSC	AM	0.0	A	18.5	C	18.5	18.5	C	18.5
			PM	0.0	A	12.8	B	12.8	13.2	B	13.2
13	San Jose Avenue / Portofino Drive	SSSC	AM	15.1	C	16.2	C	1.1	17.3	C	2.2
			PM	10.2	B	10.5	B	0.3	10.5	B	0.3

Notes: Signal = Traffic Signal, SSSC = Side Street Stop Control, AWSC = All Way Stop Control. **Bold** indicates substandard per jurisdiction minimum thresholds. **Bold and shaded** indicates significant project impact.

(a) Delay is measured in seconds.

(b) Change in delay due to the addition of project traffic

Table 5–3 Cumulative plus Project Intersection LOS Summary (Cont.)

#	Intersection	Traffic Control	Peak Hour	Baseline		Plus Project (Scenario 1)			Plus Project (Scenario 2)		
				Delay (a)	LOS	Delay (a)	LOS	Δ (b)	Delay (a)	LOS	Δ (b)
14	San Jose Avenue/ Fairview Avenue	Signal	AM	54.7	D	56.9	**E**	2.2	56.9	**E**	2.2
			PM	65.4	**E**	71.0	**E**	5.6	70.9	**E**	5.5
15	Balfour Road / SR-4	Signal	AM	*Intersection does not exist in this scenario*		*Intersection does not exist in this scenario*			*Intersection does not exist in this scenario*		
			PM								
16	Balfour Road / SR-4 SB Ramps (Future)	Signal	AM	29.9	C	31.8	C	1.9	31.8	C	1.9
			PM	47.4	D	50.1	D	2.7	50.1	D	2.7
17	Balfour Road / SR-4 NB Ramps (Future)	Signal	AM	7.2	A	7.3	A	0.1	7.3	A	0.1
			PM	43.5	D	44.4	D	0.9	44.4	D	0.9
18	Balfour Road / American Avenue / West Country Club Drive	Signal	AM	88.2	**F**	94.5	**F**	6.3	94.5	**F**	6.3
			PM	23.1	C	23.7	C	0.6	23.7	C	0.6
19	Balfour Road / Foothill Drive / E Country Club Drive	Signal	AM	45.4	D	54.1	D	8.7	54.1	D	8.7
			PM	16.9	B	17.0	B	0.1	17.0	B	0.1
20	West Country Club / Presidio Drive	AWSC	AM	8.9	B	9.3	A	0.4	9.3	A	0.4
			PM	8.4	A	8.5	A	0.1	8.5	A	0.1
21	East Country Club / Roundhill Drive	AWSC	AM	8.4	A	8.9	A	0.5	8.9	A	0.5
			PM	7.9	A	8.0	A	0.1	8.0	A	0.1

Notes: Signal = Traffic Signal, SSSC = Side Street Stop Control, AWSC = All Way Stop Control. **Bold** indicates substandard per jurisdiction minimum thresholds. **Bold and shaded** indicates significant project impact.

(a) Delay is measured in seconds.

(b) Change in delay due to the addition of project traffic

Table 5–4 Cumulative plus Project Routes of Regional Significance Travel Time Summary

Facility	Dir.	Scenario	Travel Time (a)	Free-Flow Time (a)	Delay Index
AM Peak					
SR-4					
North of Lone Tree Way (Basic)	NB	Baseline	11.6	11.4	1.02
		With Scenario 1	11.6	11.4	1.02
		With Scenario 2	11.7	11.4	1.03
	SB	Baseline	17.2	14.8	1.17
		With Scenario 1	17.3	14.8	1.17
		With Scenario 2	17.1	14.8	1.16
Lone Tree Way NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	Baseline	19.4	17.0	1.14
		With Scenario 1	19.4	17.0	1.14
		With Scenario 2	19.5	17.0	1.15
	SB	Baseline	20.3	17.0	1.19
		With Scenario 1	20.3	17.0	1.19
		With Scenario 2	20.3	17.0	1.19
Jeffery Way NB On-Ramp (Merge)	NB	Baseline	18.8	17.0	1.10
		With Scenario 1	18.8	17.0	1.10
		With Scenario 2	18.8	17.0	1.10
Lone Tree Way/ Jeffery Way NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	Baseline	19.9	17.0	1.17
		With Scenario 1	19.9	17.0	1.17
		With Scenario 2	19.9	17.0	1.17
	SB	Baseline	19.4	17.0	1.14
		With Scenario 1	19.4	17.0	1.14
		With Scenario 2	19.4	17.0	1.14
Lone Tree Way to Sand Creek Road (Basic)	NB	Baseline	3.4	3.4	1.01
		With Scenario 1	3.4	3.4	1.01
		With Scenario 2	3.5	3.4	1.02
	SB	Baseline	9.9	9.7	1.02
		With Scenario 1	9.9	9.7	1.03
		With Scenario 2	9.9	9.7	1.02
Sand Creek Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	Baseline	19.4	17.0	1.14
		With Scenario 1	19.4	17.0	1.14
		With Scenario 2	19.5	17.0	1.15
	SB	Baseline	19.9	17.0	1.17
		With Scenario 1	19.9	17.0	1.17
		With Scenario 2	19.9	17.0	1.17
Sand Creek Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	Baseline	19.3	17.0	1.13
		With Scenario 1	19.3	17.0	1.13
		With Scenario 2	19.3	17.0	1.13
	SB	Baseline	18.6	17.0	1.09
		With Scenario 1	18.6	17.0	1.09
		With Scenario 2	18.6	17.0	1.09
Sand Creek Road to Balfour Road (Basic)	NB	Baseline	31.8	31.8	1.00
		With Scenario 1	31.8	31.8	1.00
		With Scenario 2	31.8	31.8	1.00
	SB	Baseline	30.1	30.1	1.00
		With Scenario 1	30.1	30.1	1.00
		With Scenario 2	30.1	30.1	1.00

Bold indicates a segment with a delay index greater than the allowable threshold of 2.5.

(a) Travel Time and Free-Flow Time are measured in seconds.
Results were obtained using HCM freeway facility level of service analysis. The travel time is calculated using the average travel speed or free flow speed and segment length.

Table 5–4 Cumulative plus Project Routes of Regional Significance Travel Time Summary (Cont.)

Facility	Dir.	Scenario	Travel Time (a)	Free-Flow Time (a)	Delay Index
AM Peak					
SR-4					
Balfour Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	Baseline	18.5	17.0	1.08
		With Scenario 1	18.5	17.0	1.08
		With Scenario 2	18.5	17.0	1.08
	SB	Baseline	19.7	17.0	1.15
		With Scenario 1	19.7	17.0	1.15
		With Scenario 2	19.7	17.0	1.16
Balfour Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	Baseline	19.3	17.0	1.13
		With Scenario 1	19.3	17.0	1.13
		With Scenario 2	19.3	17.0	1.13
	SB	Baseline	18.5	17.0	1.08
		With Scenario 1	18.5	17.0	1.08
		With Scenario 2	18.5	17.0	1.08
South of Balfour Road (Basic)	NB	Baseline	90.0	90.0	1.00
		With Scenario 1	90.0	90.0	1.00
		With Scenario 2	90.0	90.0	1.00
	SB	Baseline	90.0	90.0	1.0
		With Scenario 1	90.0	90.0	1.00
		With Scenario 2	90.0	90.0	1.00

Bold indicates a segment with a delay index greater than the allowable threshold of 2.5.

(a) Travel Time and Free-Flow time are measured in seconds.
Results were obtained using HCM freeway facility level of service analysis. The travel time is calculated using the average travel speed or free flow speed and segment length.

Table 5–4 Cumulative plus Project Routes of Regional Significance Travel Time Summary (Cont.)

Facility	Dir.	Scenario	Travel Time (a)	Free-Flow Time (a)	Delay Index
PM Peak					
SR-4					
North of Lone Tree Way (Basic)	NB	Baseline	11.4	11.4	1.00
		With Scenario 1	11.4	11.4	1.00
		With Scenario 2	11.4	11.4	1.00
	SB	Baseline	17.3	14.8	1.17
		With Scenario 1	17.3	14.8	1.17
		With Scenario 2	17.3	14.8	1.17
Lone Tree Way NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	Baseline	18.8	17.0	1.10
		With Scenario 1	18.8	17.0	1.10
		With Scenario 2	18.8	17.0	1.10
	SB	Baseline	20.3	17.0	1.19
		With Scenario 1	20.3	17.0	1.19
		With Scenario 2	20.3	17.0	1.19
Jeffery Way NB On-Ramp (Merge)	NB	Baseline	18.5	17.0	1.09
		With Scenario 1	18.5	17.0	1.09
		With Scenario 2	18.5	17.0	1.09
Lone Tree Way/ Jeffery Way NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	Baseline	19.9	17.0	1.17
		With Scenario 1	19.9	17.0	1.17
		With Scenario 2	19.9	17.0	1.17
	SB	Baseline	20.1	17.0	1.18
		With Scenario 1	20.3	17.0	1.19
		With Scenario 2	20.3	17.0	1.19
Lone Tree Way to Sand Creek Road (Basic)	NB	Baseline	3.4	3.4	1.00
		With Scenario 1	3.4	3.4	1.00
		With Scenario 2	3.4	3.4	1.00
	SB	Baseline	10.5	9.7	1.08
		With Scenario 1	10.6	9.7	1.10
		With Scenario 2	10.6	9.7	1.10
Sand Creek Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	Baseline	19.0	17.0	1.11
		With Scenario 1	19.0	17.0	1.11
		With Scenario 2	19.0	17.0	1.11
	SB	Baseline	20.0	17.0	1.17
		With Scenario 1	20.0	17.0	1.17
		With Scenario 2	20.0	17.0	1.17
Sand Creek Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	Baseline	19.3	17.0	1.13
		With Scenario 1	19.5	17.0	1.14
		With Scenario 2	19.5	17.0	1.14
	SB	Baseline	18.5	17.0	1.09
		With Scenario 1	18.6	17.0	1.09
		With Scenario 2	18.6	17.0	1.09
Sand Creek Road to Balfour Road (Basic)	NB	Baseline	31.8	31.8	1.00
		With Scenario 1	31.8	31.8	1.00
		With Scenario 2	31.8	31.8	1.00
	SB	Baseline	30.2	30.1	1.00
		With Scenario 1	30.2	30.1	1.00
		With Scenario 2	30.2	30.1	1.00

Bold indicates a segment with a delay index greater than the allowable threshold of 2.5.

(a) Travel Time and Free-Flow Time are measured in seconds.
Results were obtained using HCM freeway facility level of service analysis. The travel time is calculated using the average travel speed or free flow speed and segment length.

Table 5–4 Cumulative plus Project Routes of Regional Significance Travel Time Summary (Cont.)

Facility	Dir.	Scenario	Travel Time (a)	Free-Flow Time (a)	Delay Index
PM Peak					
SR-4					
Balfour Road NB On-Ramp (Merge) / SB Off-Ramp (Diverge)	NB	Baseline	18.3	17.0	1.08
		With Scenario 1	18.3	17.0	1.08
		With Scenario 2	18.3	17.0	1.08
	SB	Baseline	19.4	17.0	1.14
		With Scenario 1	19.4	17.0	1.14
		With Scenario 2	19.4	17.0	1.14
Balfour Road NB Off-Ramp (Diverge) / SB On-Ramp (Merge)	NB	Baseline	19.8	17.0	1.16
		With Scenario 1	19.8	17.0	1.16
		With Scenario 2	19.8	17.0	1.16
	SB	Baseline	19.0	17.0	1.11
		With Scenario 1	19.0	17.0	1.11
		With Scenario 2	19.0	17.0	1.11
South of Balfour Road (Basic)	NB	Baseline	90.0	90.0	1.00
		With Scenario 1	90.0	90.0	1.00
		With Scenario 2	90.0	90.0	1.00
	SB	Baseline	90.6	90.0	1.01
		With Scenario 1	90.5	90.0	1.01
		With Scenario 2	90.5	90.0	1.01

Bold indicates a segment with a delay index greater than the allowable threshold of 2.5.

(a) Travel Time and Free-Flow Time are measured in seconds.
Results were obtained using HCM freeway facility level of service analysis. The travel time is calculated using the average travel speed or free flow speed and segment length.

6 PEAK HOUR SIGNAL WARRANT EVALUATION

A planning level assessment of the need for traffic signalization was performed for the un-signalized study intersections. This evaluation was performed consistent with the peak-hour warrant methodologies noted in Section 4C of the California Manual on Uniform Traffic Control Devices (CMUTCD), 2014 Edition. Summaries of the peak-hour warrant results are presented in **Table 6-1** and **Table 6-2.**

As shown in the tables, the addition of the proposed project does not result in any peak-hour signal warrants to be satisfied at any of the study intersections under any analysis conditions for both development scenarios. Detailed results of this analysis are presented in the **Appendix L.**

Table 6–1 Traffic Signal Warrant Analysis Results for Development Scenario 1

#	Intersection	Analysis Scenario					
		Existing (2017)	**Existing (2017) plus Project**	**Existing Plus Approved Projects**	**Existing Plus Approved Projects plus Project**	**Cumulative (2040)**	**Cumulative (2040) plus Project**
5	Heidorn Ranch Rd @ Old Sand Creek Rd	No/No	No/No	No/No	No/No	No/No	No/No
12	St Regis Ave @ San Jose Ave	No/No	No/No	No/No	No/No	No/No	No/No
13	Portofino Dr/Loma Vista School @ San Jose Ave	No/No	No/No	No/No	No/No	No/No	No/No
20	W Country Club Dr @ Presidio Dr	No/No	No/No	No/No	No/No	No/No	No/No
21	E Country Club Dr @ Roundhill Dr	No/No	No/No	No/No	No/No	No/No	No/No

Results are presented in AM / PM format.
Note: Peak-hour warrant is satisfied if Condition A or B is satisfied.

Table 6–2 Traffic Signal Warrant Analysis Results for Development Scenario 2

#	Intersection	Analysis Scenario					
		Existing (2017)	Existing (2017) plus Project	Existing Plus Approved Projects	Existing Plus Approved Projects plus Project	Cumulative (2040)	Cumulative (2040) plus Project
5	Heidorn Ranch Rd @ Old Sand Creek Rd	No/No	No/No	No/No	No/No	No/No	No/No
12	St Regis Ave @ San Jose Ave	No/No	No/No	No/No	No/No	No/No	No/No
13	Portofino Dr/Loma Vista School @ San Jose Ave	No/No	No/No	No/No	No/No	No/No	No/No
20	W Country Club Dr @ Presidio Dr	No/No	No/No	No/No	No/No	No/No	No/No
21	E Country Club Dr @ Roundhill Dr	No/No	No/No	No/No	No/No	No/No	No/No

Results are presented in AM / PM format.
Note: Peak-hour warrant is satisfied if Condition A or B is satisfied.

7 POTENTIAL EFFECTS ON TRANSIT, BICYCLE, AND PEDESTRIAN MOBILITY

The proposed project was evaluated to determine if it would likely conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks) or generate pedestrian, bicycle, or transit travel demand that would not be accommodated by transit, bicycle, or pedestrian facilities and plans.

Patrons and residents to or from the proposed development have the option of driving, taking transit, walking, or bicycling. Those patrons and residents that choose to take transit have routes that provide services to nearby Park and Ride facilities and other areas of Brentwood. The transit routes currently do not go west of SR-4 at Sand Creek Road, but with the proposed project, Tri-Delta Transit will evaluate the potential ridership and adjust routes as necessary. If it is conservatively assumed (from the standpoint of transit demand) that one percent of the patrons and residents of the retail and residential uses will use transit during the peak hours of the day, it represents approximately six passengers in the weekday AM peak period and 13 passengers in the weekday PM peak period. The proposed project does not conflict with adopted plans and does not prohibit implementing transit facilities or plans.

Sidewalks and Class II bicycle lanes will be constructed along Sand Creek Road between the new SR-4 interchange and the project site and will connect with the existing sidewalks and Class II bicycle lanes on Sand Creek Road. Similarly, sidewalks and Class II bicycle lanes will be constructed along San Jose Avenue and Saint Regis Avenue to connect with existing facilities. Crosswalks will be provided at the new intersections constructed by the project. In addition, the project will construct necessary on-site sidewalks, walkways, and other amenities in compliance with adopted policies, plans and programs. Internal pedestrian connections link the retail uses with the adjacent residential areas to allow retail patrons and employees to conveniently walk from nearby destinations. Many of the roadways have low traffic volumes where it is reasonable for cyclists to share the roadway with automobiles. Thus, the impact on transit, pedestrian or bicycle facilities is determined to be less than significant.

8 SITE ACCESS AND CIRCULATION

Project access and circulation was evaluated as part of this study. As reflected in **Figure 1-2,** primary access is anticipated to be provided at the Sand Creek Road intersection with San Jose Avenue (Intersection #6). Access will also be provided at the intersection of San Jose Avenue and St Regis Avenue. Given the unknown nature of the ultimate commercial type, configuration, etc. no further assessment was performed. For the purposes of this study it is anticipated that sight distances, emergency access truck access, and on-site circulation for these subareas will be appropriated designed in accordance with the City's applicable design standards.

9 SUMMARY OF IMPACTS AND RECOMMENDED MITIGATIONS

Based on the results of the traffic analysis and evaluation of the proposed site plan, the project impacts which require mitigation are listed below and are identified as being significant unless mitigated. Recommended mitigation measures are provided for each significant impact.

It should be noted that the impact at the intersection of SR-4 at Balfour Road (Intersection # 15) will be mitigated by the SR-4 at Balfour Road Interchange Improvements. The East Contra Costa Regional Fee and Financing Authority (ECCRFFA) is a regional planning agency charge with obtaining funding for regional transportation improvement projects, such as the SR-4 interchange improvements. The proposed project is required to pay the ECCRFFA a fee based on per dwelling unit and per square foot of development. Thus, the proposed project contributes their fair share to the SR-4 interchange improvements and other regional improvements that would mitigate or avoid potential project impacts. The following discussion describes additional improvements necessary that are not covered in the fees paid to ECCRFFA.

Existing Plus Project (Development Scenario 1 & 2)

- #14 – Fairview Avenue at San Jose Avenue
  - AM (Increased delay, LOS E) and PM (Increased delay, LOS E) Peaks – Significant Impact
- #15 – SR-4 at Balfour Road
  - PM (Increased delay, LOS F) Peaks – Significant Impact
- #18 – W Country Club Drive/ American Avenue at Balfour Road
  - AM (Increased delay, LOS F)

Existing Plus Approved Projects Plus Project (Development Scenario 1 & 2)

- # 2 – SR-4 SB Ramps at Lone Tree Way
  - AM (Increased delay, LOS E) and PM (Increased delay, LOS F) Peaks – Significant Impact
- #11 – Fairview Avenue at Sand Creek Road
  - AM (Increased delay, LOS E) Peak – Significant Impact
- #14 – Fairview Avenue at San Jose Avenue
  - AM (Increased delay, LOS D-) and PM (Worsened from LOD D to LOS E) Peaks – Significant Impact
- #18 – W Country Club Drive/ American Avenue at Balfour Road
  - AM (Increased delay, LOS F)

Cumulative Plus Project (Development Scenario 1 & 2)

- # 2 – SR-4 SB Ramps at Lone Tree Way
  - AM (Increased delay, LOS F) and PM (Increased delay, LOS F) Peaks – Significant Impact
- #7 – SR-4 SB Ramps at Sand Creek Rd
  - PM (Worsened from LOS D to LOS E) Peak – Significant Impact
- #11 – Fairview Avenue at Sand Creek Road
  - AM (Increased delay, LOS E) and PM (Increased delay, LOS F) Peaks – Significant Impact
- #14 – Fairview Avenue at San Jose Avenue
  - AM (Worsened from LOS D to LOS E) and PM (Increased delay, LOS E) Peaks – Significant Impact
- #18 – W Country Club Drive/ American Avenue at Balfour Road

- AM (Increased delay, LOS F)

9.1 SIGNIFICANT UNLESS MITIGATED

Existing Plus Project

Impact #1: Intersection #14 – Fairview Avenue at San Jose Avenue
The intersection of Fairview Avenue at San Jose Avenue will operate at LOS E during both peak hours under Existing Conditions and will experience an increase in delay due to the proposed project. The increase in delay to a pre-existing failing intersection results in a significant impact.

Mitigation #1
The change in signal timing to increase the cycle length to give more time to the northbound and southbound through movements will improve the intersection operations to acceptable standards.

Impact #2: Intersection #15 – SR-4 and Balfour Road
The intersection of SR-4 and Balfour Road will operate at LOS F during the PM peak hour under Existing Conditions and will experience an increase in delay due to the proposed project. The increase in delay to a pre-existing failing intersection results in a significant impact.

Mitigation #2
The construction of the new SR-4 / Balfour Road interchange will eliminate this intersection and replace it with two new intersections that provide access to SR-4. This improvement is a planned project that is assumed to be in place under Existing plus Approved Projects and Cumulative Conditions. The interchange and associated SR-4 widening is being funded by ECCRFFA. The project applicant would be required to pay their ECCRFFA fees for development which would be considered mitigation for the impact at this location. The interchange improvement improves the intersection operations to acceptable standards.

Impact #3: Intersection #18 – W Country Club Drive/ American Avenue at Balfour Road
The intersection of W Country Club Drive/ American Avenue at Balfour Road will operate at LOS F during the AM peak hour under Existing Conditions and will experience an increase in delay due to the proposed project. The increase in delay to a pre-existing failing intersection results in a significant impact.

Mitigation #3
The addition of a third westbound left turn lane on Balfour road is recommended. Queue storage would be lengthened. Signage will be placed along Balfour Road and on the Signal Gantry to improve lane utilization and access to the school sire. These recommendations will improve the intersection operations to acceptable standards.

Prior to issuance of the first building permit, the applicant shall design and construct the improvements needed to accommodate a third westbound left turn lane. With the installation of the third left turn lane, the project would mitigate its impact.

Existing Plus Approved Projects Plus Project

Impact #4: Intersection #2 – SR-4 SB Ramps at Lone Tree Way
The intersection of the SR-4 Southbound Ramps at Lone Tree Way will operate at LOS E/F during both peak hours, respectively, under Existing plus Approved Projects plus Project Conditions and will experience an increase in delay due to the proposed project. The increase in delay to a pre-existing failing intersection results in a significant impact.

Mitigation #4
The installation of a second eastbound right-turn lane and the restriping of the southbound approach to provide a right-turn lane, shared right and left-turn lane, and left-turn lane will improve the intersection operations to acceptable standards. It should be noted that this intersection is located in the City of Antioch and within Caltrans right-of-way. Therefore, since the governing agency for this traffic study is the City of Brentwood and they could not implement the proposed mitigation in another agency's right-of-way, this impact would remain significant and unavoidable.

Impact #5: Intersection #11 – Fairview Avenue at Sand Creek Road
The intersection of Fairview Avenue at Sand Creek Road will operate at LOS E during the AM peak hour under Existing plus Approved Projects Conditions and will experience an increase in delay due to the proposed project. The increase in delay to a pre-existing failing intersection results in a significant impact.

Mitigation #5
The restriping of the southbound approach to provide a left-turn lane, a through lane, and a shared through and right-turn lane and the change in signal timing to increase the cycle length to give more time to the eastbound and westbound through movements will improve the intersection operations to acceptable standards.

Impact #6: Intersection #14 – Fairview Avenue at San Jose Avenue
The intersection of Fairview Avenue at San Jose Avenue will operate at LOS E/D during the AM/PM peak hours, respectively, under Existing plus Approved Projects Conditions and will experience an increase in delay due to the proposed project. The increase in delay to a pre-existing failing intersection results in a significant impact.

Mitigation #6
The applicant shall implement **Mitigation #1** which is to change in signal timing to increase the cycle length to give more time to the northbound and southbound through movements. With the change in signal timing, the intersection will operate at acceptable standards. the project would mitigate its impact.

Impact #7: Intersection #18 – W Country Club Drive/ American Avenue at Balfour Road
The intersection of W Country Club Drive/ American Avenue at Balfour Road will operate at LOS F during the AM peak hour under Existing plus Approved Projects Conditions and will experience an increase in delay due to the proposed project. The increase in delay to a pre-existing failing intersection results in a significant impact.

Mitigation #7
The applicant shall implement **Mitigation #3** which is to construct the addition of a westbound left turn lane at Intersection #18. With the addition of a westbound left, the intersection will operate at acceptable standards.

Cumulative Plus Project

Impact #8: Intersection #2 – SR-4 SB Ramps at Lone Tree Way
The intersection of the SR-4 Southbound Ramps at Lone Tree Way will operate at LOS F during both peak hours under Cumulative Conditions and will experience an increase in delay due to the proposed project. The increase in delay to a pre-existing failing intersection results in a significant impact.

Mitigation #8
The applicant shall implement **Mitigation #4** which is to install a second eastbound right-turn lane and restripe the southbound approach to provide a right-turn lane, shared right and left-turn lane, and left-turn lane. With the installation of an additional eastbound right-turn lane and the restriping of the southbound approach, the intersection will operate at acceptable standards. It should be noted that this intersection is located in the City of Antioch and within Caltrans right-of-way. Therefore, since the governing agency for this traffic study is the City of Brentwood and they could not implement the proposed mitigation in another agency's right-of-way, this impact would remain significant and unavoidable.

Impact #9: Intersection #7 – SR-4 SB Ramps at Sand Creek Road
The intersection of the SR-4 Southbound Ramps at Sand Creek Road will operate at LOS D during the PM peak hours under Cumulative Conditions and will experience an increase in delay and decrease to LOS E due to the proposed project. The increase in delay results in a significant impact.

Mitigation #9
The restriping of the southbound approach to provide a right shared left-turn lane and two left-turn lanes will improve the intersection operations to acceptable standards. It should be noted that this intersection is located within Caltrans right-of-way. Therefore, since the governing agency for this traffic study is the City of Brentwood and they could not implement the proposed mitigation in another agency's right-of-way, this impact would remain significant and unavoidable. It should also be noted that there is a future project to construct the diagonal on-ramp from eastbound Sand Creek Road to southbound SR-4. However, this project has no identified funding source or timeline and therefore was not included as an improvement or potential mitigation.

Impact #10: Intersection #11 – Fairview Avenue at Sand Creek Road
The intersection of Fairview Avenue at Sand Creek Road will operate at LOS E/F during the AM/PM peak hours, respectively, under Cumulative Conditions and will experience an increase in delay due to the proposed project. The increase in delay to a pre-existing failing intersection results in a significant impact.

Mitigation #10
The applicant shall implement **Mitigation #5** which is to restripe the southbound approach to provide a left-turn lane, a through lane, and a shared through and right-turn lane and to change the signal timing to increase the cycle length to give more time to the eastbound and westbound through movements. With the restriping of the southbound approach and retiming, the intersection will operate better than Cumulative Baseline Conditions.

Impact #11: Intersection #14 – Fairview Avenue at San Jose Avenue
The intersection of Fairview Avenue at San Jose Avenue will operate at LOS E during the peak hour under Cumulative Conditions and will experience an increase in delay and decrease to a LOS E during the AM peak hour due to the proposed project. The increase in delay to a pre-existing failing intersection results in a significant impact.

Mitigation #11

The applicant shall implement **Mitigation #1** which is to change in signal timing to increase the cycle length to give more time to the northbound and southbound through movements. With the change in signal timing, the intersection will operate at acceptable standards.

Impact #12: Intersection #18 – W Country Club Drive/ American Avenue at Balfour Road

The intersection of W Country Club Drive/ American Avenue at Balfour Road will operate at LOS F during the AM peak hour under Existing plus Approved Projects Conditions and will experience an increase in delay due to the proposed project. The increase in delay to a pre-existing failing intersection results in a significant impact.

Mitigation #12

The applicant shall implement **Mitigation #3** which is to construct the addition of a westbound left turn lane at Intersection #18. With the addition of a westbound left, the intersection will operate at acceptable standards.

Table 9-1, Table 9-2, and **Table 9-3** present the intersection operations with the mitigation measures identified under Existing and Existing plus Approved Projects, and Cumulative Conditions, respectively. Analysis sheets are provided in the **Appendix M.**

Table 9–1 Mitigated Existing Plus Project Intersection LOS Summary

#	Intersection	Peak Hour	Before Mitigation		After Mitigation	
			Delay (a)	LOS	Delay (a)	LOS
Development Scenario 1						
14	San Jose Avenue/ Fairview Avenue	AM	68.8	**E**	41.2	D
		PM	63.7	**E**	51.7	D
18	W Country Club Drive/ Balfour Road	AM	80.4	**F**	44.3	D
		PM	15.3	B	15.2	B
Development Scenario 2						
14	San Jose Avenue/ Fairview Avenue	AM	69.0	**E**	41.5	D
		PM	63.7	**E**	51.7	D
18	W Country Club Drive/ Balfour Road	AM	88.3	**F**	49.2	D
		PM	15.3	B	15.2	B

Notes: **Bold** indicates substandard per jurisdiction minimum thresholds. **Bold and shaded** indicates significant project impact. Intersection 15 is not shown because the intersection will be mitigated with the SR-4 at Balfour interchange roadway project that is assumed to be constructed by Existing plus Approved Projects Conditions.

(a) Delay is measured in seconds.

Table 9–2 Mitigated Existing Plus Approved Projects plus Project Intersection LOS Summary

#	Intersection	Peak Hour	Before Mitigation		After Mitigation	
			Delay (a)	LOS	Delay (a)	LOS
Development Scenario 1						
2	Lone Tree Way / SR-4 SB Ramps	AM	71.5	**E**	24.0	C
		PM	104.0	**F**	33.1	C
11	Fairview Avenue / Sand Creek Road	AM	57.2	**E**	51.6	D
		PM	53.3	D	42.3	D
14	Fairview Avenue / San Jose Avenue	AM	66.9	**E**	42.8	D
		PM	59.7	**E**	54.0	D
18	W Country Club Drive/ Balfour Road	AM	80.1	**F**	43.6	D
		PM	16.2	B	16.1	B
Development Scenario 2						
2	Lone Tree Way / SR-4 SB Ramps	AM	71.4	**E**	24.0	C
		PM	103.9	**F**	33.1	C
11	Fairview Avenue / Sand Creek Road	AM	57.4	**E**	51.8	D
		PM	53.3	D	42.3	D
14	Fairview Avenue / San Jose Avenue	AM	67.0	**E**	43.1	D
		PM	59.7	**E**	54.0	D
18	W Country Club Drive/ Balfour Road	AM	87.9	**F**	48.2	D
		PM	16.2	B	16.0	B

Notes: **Bold** indicates substandard per jurisdiction minimum thresholds. **Bold and shaded** indicates significant project impact.

(a) Delay is measured in seconds.

Table 9–3 Mitigated Cumulative plus Project Intersection LOS Summary

#	Intersection	Peak Hour	Before Mitigation		After Mitigation	
			Delay (a)	LOS	Delay (a)	LOS
Development Scenario 1						
2	Lone Tree Way / SR-4 SB Ramps	AM	109.4	**F**	35.4	D
		PM	142.7	**F**	44.7	D
7	Sand Creek Road / SR-4 SB Ramps	AM	20.4	C	16.6	B
		PM	70.4	**E**	49.6	D
11	Sand Creek Road / Fairview Avenue	AM	72.9	**E**	69.4	**E**
		PM	96.1	**F**	83.4	**F**
14	San Jose Avenue/ Fairview Avenue	AM	56.9	**E**	47.7	D
		PM	71.0	**E**	41.6	D
18	W Country Club Drive/ Balfour Road	AM	94.5	**F**	53.8	D
		PM	23.7	C	24.2	C
Development Scenario 2						
2	Lone Tree Way / SR-4 SB Ramps	AM	109.4	**F**	35.4	D
		PM	142.7	**F**	44.7	D
7	Sand Creek Road / SR-4 SB Ramps	AM	20.4	C	16.6	B
		PM	68.9	**E**	47.8	D
11	Sand Creek Road / Fairview Avenue	AM	72.9	**E**	69.4	**E**
		PM	96.0	**F**	83.4	**F**
14	San Jose Avenue/ Fairview Avenue	AM	56.9	**E**	47.7	D
		PM	70.9	**E**	41.6	D
18	W Country Club Drive/ Balfour Road	AM	94.5	**F**	53.8	D
		PM	23.7	C	24.2	C

Notes: **Bold** indicates substandard per jurisdiction minimum thresholds. **Bold and shaded** indicates significant project impact.

(b) Delay is measured in seconds.

Appendix J

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BRENTWOOD BRIDLE GATE VMT ANALYSIS

DATE: March 2, 2022

TO: Doug Chen | Discovery Builders

FROM: Erin Vaca | DKS Associates

SUBJECT: VMT Assessment for Bridle Gate Residential Project Project #22265-000

INTRODUCTION

This memorandum documents the VMT characteristics of the proposed Bridle Gate residential development located in Brentwood, California. The proposed project (Bridle Gate Project) consists of 286 single family residential lots to be constructed in the southwest quadrant of Highway 4 and Sand Creek Road, with parcels for parks, open space, and designated remainder within a gross area of approximately 135 acres. The project site is currently vacant and is being used for grazing (see **Figure 1** for project location; a copy of the site plan is attached).

BACKGROUND ON SENATE BILL 743 AND VMT METRICS

California Senate Bill 743, adopted in 2013, brought about changes in the approach to measuring the transportation impacts of projects subject to the California Environmental Quality Act (CEQA). Effective July 2020, the transportation impacts of projects are primarily measured in terms of Vehicle Miles Traveled (VMT) characteristics.

The Governor's Office of Planning and Research (OPR) has issued technical guidance recommending that residential and employment land use projects be assessed in terms of VMT per capita, and that the recommended threshold of significance be set at 85% of the existing baseline VMT per capita or per employee. The OPR technical guidance also specifies circumstances under which projects may be presumed to have less than significant VMT impacts (i.e., screening criteria).



FIGURE 1: PROJECT LOCATION

METHODOLOGY AND ANALYSIS STANDARDS

In compliance with SB 743 and following OPR guidance, the Contra Costa Transportation Authority (CCTA) has implemented VMT analysis methodologies in its Growth Management Plan (GMP) Implementation Guide (revised February 2021). This document specifies the methodology, screening criteria, and thresholds of significance that member jurisdictions should follow to remain in compliance with the GMP. This assessment utilizes follows methodologies specified in the GMP Implementation Guide to calculate the VMT characteristics of the proposed project.

VERSION OF CCTA MODEL AND VMT SUMMARY SCRIPT

DKS conducted analysis using the 2020 version of the CCTA travel demand model[1] which incorporates the "P2017" land use forecasts. Model files previously used for analysis of other projects in Brentwood were reviewed to ensure consistency (model files used by TJKM and provided by the City of Brentwood). In particular, the land use input file (without the project) was compared and found to be identical. While the TJKM script used to calculate VMT for each TAZ appeared to differ from the script supplied by CCTA, the resulting VMT was very similar (see Project VMT Analysis, below).

Although the project's proposed residential units are in the model's land use file, the model does not forecast activation of this land use until many years in the future. To conduct the project VMT analysis, DKS modifed the master land use file to reflect project land use for a 2020 scenario.

THRESHOLD OF SIGNIFICANCE

The threshold of significance is based on a citywide average of 29.6 VMT per capita, as reported by the City of Brentwood. In conformance with the GMP, this results in a threshold of significance of 25.2 VMT per capita or 15% below the existing citywide average. For comparison, the County-wide residential VMT per capita is 19.4, which would imply a significance threshold of 16.5. Per the GMP, however, the less stringent threshold may be used.

PROJECT ANALYSIS

PROJECT SCREENING

The GMP Implementation Guide lists five screening criteria to which projects may be compared. Projects meeting at least one screening criterion may be considered to have less than significant VMT impacts, and further analysis is not required. The proposed Bridle Gate Project does not meet any of the criteria for a presumption of less than significant impacts, as discussed below.

[1] For reference, the source script for this version of the model is "cctamodel20201014.rsc".

1. CEQA Exemption – Any project that is exempt from CEQA is not required to conduct a VMT analysis. The proposed Project is not exempt from CEQA and thus does not meet this criterion.
2. Small Projects – Small projects are defined as having 10,000 square feet or less of non-residential space or 20 residential units or less, or otherwise generating less than 836 VMT per day. The proposed Project consists of 286 single family residential units and thus does not meet this criterion.
3. Local-Serving Uses – Projects that consist of Local-Serving Uses primarily draw users and customers from a relatively small geographic area that will lead to short-distance trips and trips that are linked to other destinations. This screening criterion applies to commercial or retail uses. Since the proposed Project is a residential project, this screening criterion is not applicable.
4. Projects Located in Transit Priority Areas (TPAs) – Projects located within a TPA can be presumed to have a less-than-significant impact absent substantial evidence to the contrary. The proposed Project is not located within a TPA and thus does not meet this criterion.
5. Projects Located in Low VMT Areas – Residential and employment-generating projects located within a low VMT-generating area can be presumed to have a less-than-significant impact absent substantial evidence to the contrary. For a residential project, a low VMT area is defined as cities and unincorporated portions within CCTA's five subregions that have existing home-based VMT per capita that is 85% or less of the existing County-wide average. The proposed Project is located within the city limits of Brentwood, in which the home-based VMT per capita is above the County-wide average. Therefore, the proposed Project does not meet this criterion.

PROJECT VMT ANALYSIS

BASELINE ANALYSIS

Because the proposed Project is in a Transportation Analysis Zone (TAZ) that is currently vacant, analysis of the Project's VMT effects was conducted using the CCTA Travel Demand Model. The Project was analyzed for a 2020 condition for consistency with the scenario year used for the baseline VMT calculation.

The model run was conducted using the 2020 version of the CCTA model script and outputs were summarized using the VMT tabulation script and summary spreadsheet provided by CCTA (the calculation spreadsheet is available upon request). Note that the VMT calculation script previously used for other City of Brentwood projects was also tested and the resulting outputs were almost identical.

The threshold of significance is 85% of the baseline VMT per capita for the City of Brentwood, or 25.2 VMT per capita. As shown in Table 1, while the Project TAZ home-based VMT is lower than the baseline average for the City of Brentwood, it exceeds the threshold of significance by 7%.

TABLE 1: PROJECT VMT AVERAGE RATES AND THRESHOLDS OF SIGNIFICANCE
TABLE 1: HOME-BASED VMT PER RESIDENT

GEOGRAPHIC AREA	AVERAGE VMT PER RESIDENT	85% AVERAGE VMT PER RESIDENT
TAZ WITH PROJECT	27.0	n/a
CITY OF BRENTWOOD	29.6 [a]	25.2
CONTRA COSTA COUNTY	19.4	16.5

[a] Threshold of significance based on direction from City of Brentwood (email from Raney Planning and Management dated 1/12/2023). This threshold has been selected to be consistent with previous VMT studies for projects in Brentwood (see TJKM, "VMT Analysis for the Orchard Grove Residential Development", January 2022).

MITIGATION

Applicable site-level VMT mitigation measures listed in the guide published by the California Air Pollution Control Officer's Association (CAPCOA) were evaluated for potential incorporation into the Project. Applicable mitigation strategies are listed in **Table 2**.

The most feasible and quantifiable mitigation was determined to be an increase in intersection density, listed as Measure T-17. As shown in **Table 3** "Mitigation Summary", an intersection density of 61.5 is needed for an approximately 10% VMT reduction, which would then result in a less-than-significant impact as discussed previously. The proposed project can add an intersection (a potential location is shown in the attached exhibit prepared by Apex, the project civil engineer) to achieve this intersection density. Therefore, the proposed project is found to have a less-than-significant with mitigation.

Other potential mitigation measures considered and their corresponding VMT reductions include:

T-4 "Integrate Affordable Housing" (28.6% VMT reduction): The project is proposing 10% affordable housing, but the documented effectiveness of this measure applies only to multifamily units.

TABLE 2: APPLICABLE MITIGATION STRATEGIES

STRATEGY	MAXIMUM MITIGATION EFFECTIVENESS
T-1 INCREASE RESIDENTIAL DENSITY	30.0%
T-4 INTEGRATE AFFORDABLE HOUSING	28.6%
T-9 IMPLEMENT SUBSIDIZED TRANSIT PROGRAM	5.5%
T-15 LIMIT RESIDENTIAL PARKING SUPPLY	13.7%
T-16 UNBUNDLE RESIDENTIAL PARKING COSTS	15.7%
T-17 IMPROVE STREET CONNECTIVITY	30.0%
T-19-A. CONSTRUCT OR IMPROVE BIKE FACILITY	0.8%
T-21-A IMPLEMENT CARSHARE PROGRAM	0.15%
T-22-A-C. IMPLEMENT BIKESHARE OR SCOOTER SHARE PROGRAM	0.02-0.07%
T-23 IMPLEMENT COMMUNITY BASED TRAVEL PLANNING	2.3%

Source: CAPCOA. *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*, December 2021.

TABLE 3: MITIGATION SUMMARY

FORMULA	**A = (B-C) / C x D**
A – PERCENT VMT REDUCTION	-9.97%
B - INTERSECTION DENSITY WITH MITIGATION	Area = 135 acres (0.21 square miles) Intersections with mitigation = 13 Intersection density with mitigation = 61.5 per square mile
C - AVERAGE INTERSECTION DENSITY	36
D – ELASTICITY OF VMT TO DENSITY	-0.14

Sources: CAPCOA (2021) and DKS Associates.

CUMULATIVE ANALYSIS

Although not required by the GMP since the project VMT impacts can be mitigated, a cumulative analysis was conducted for informational purposes. This analysis was conducted for a 2040 horizon year and With Project and No Project scenarios. Since, the CCTA travel demand model land use input file contained sufficient forecasted quantities of residential development, the standard inputs were used for the With Project scenario. The Project TAZ is forecasted to remain predominantly residential, with only 24 primarily retail jobs by 2040.Note that both cumulative scenarios assumed the extension of Sand Creek Road west from the project site.

The No Project scenario was developed by subtracting 286 single family residential units from the given total and proportionately adjusting the total population, household population, and employed residents variables. **Table 4** summarizes the With Project and No Project 2040 land use inputs.

The Project and No Project VMT per capita was tabulated using the CCTA-provided scripts and summary spreadsheet. In addition, the sum of study area VMT was tabulated for both scenarios, per the GMP Implementation Guide. The study area was defined as the City of Brentwood as shown in **Figure 3**. Daily VMT was calculated for all network links within or leading to the city boundaries.

The cumulative analysis results are summarized in **Table 5.** As shown, the With Project VMT per capita for the study area is lower than that of the No Project scenario. Therefore, the Project will not result in a cumulative impact to overall VMT.

TABLE 4: CUMULATIVE ANALYSIS LAND USE INPUTS
TAZ 30689

LAND USE INPUT	ORIGINAL (WITH PROJECT)	REVISED (NO PROJECT)
TOTHH_40	791	504
TOTPOP_40	2497	1591
EMPRES_40	851	542
SFDU_40	730	444
MFDU_40	60	60
TOTEMP_40	24	24

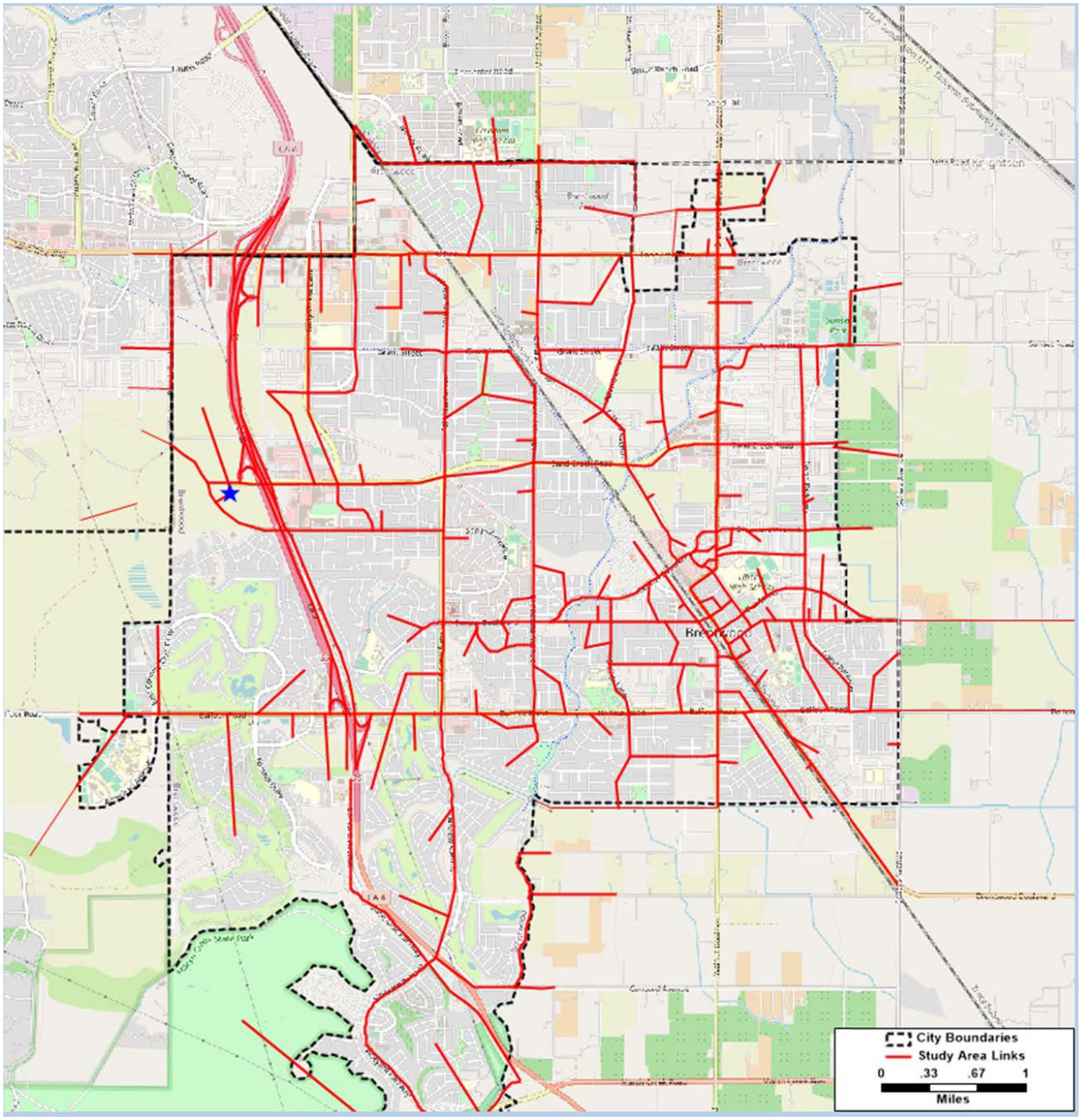


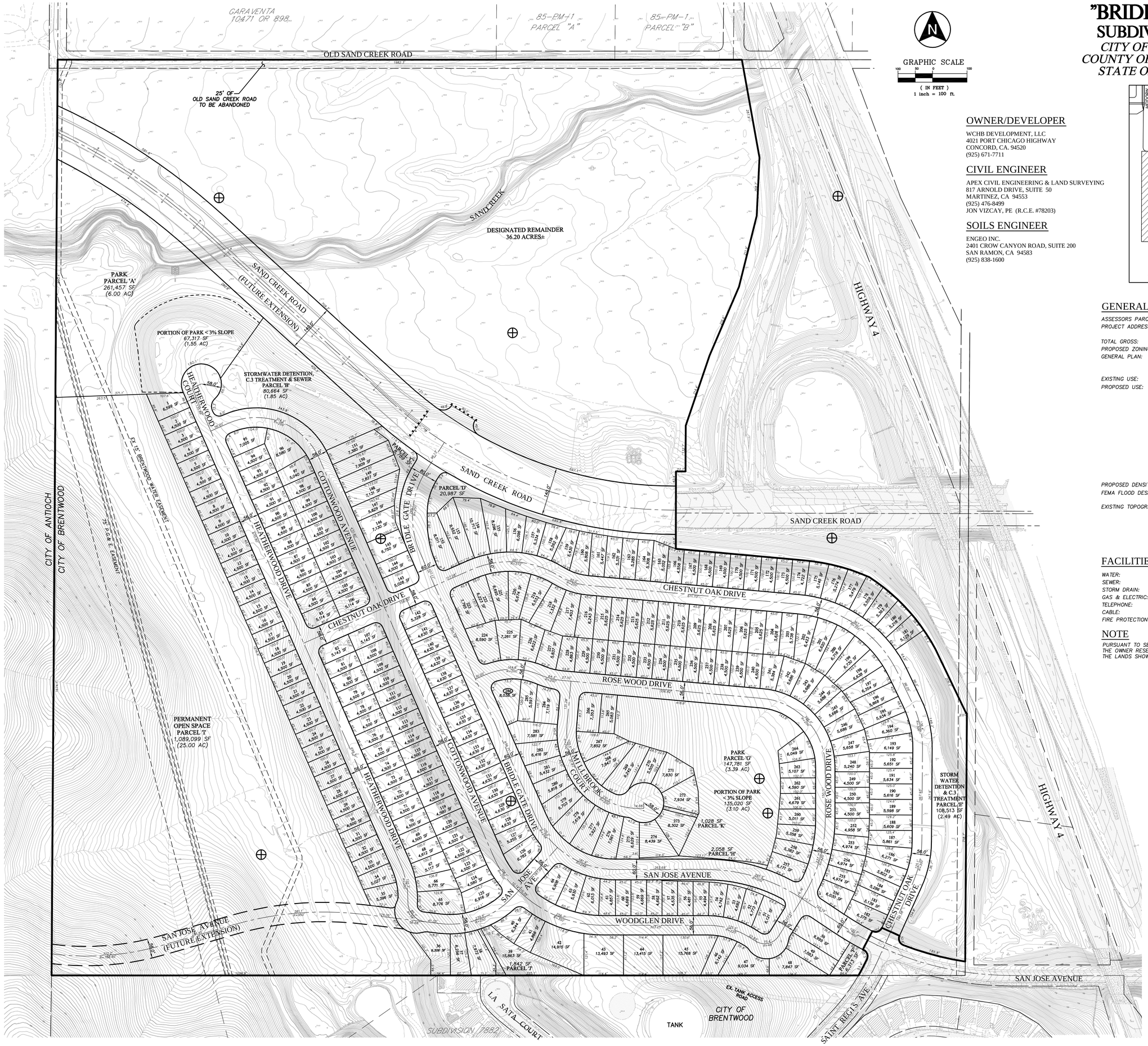
FIGURE 2: STUDY AREA FOR CUMULATIVE ANALYSIS

TABLE 5: CUMULATIVE METRICS
YEAR 2040

GEOGRAPHIC AREA	WITH PROJECT	NO PROJECT
TAZ 30689 HOME-BASED VMT PER CAPITA	19.1	19.2
STUDY AREA LINK VMT	704,816	703,602
POPULATION IN STUDY AREA TAZS	83,577	82,671
STUDY AREA VMT PER POPULATION	8.4	8.5

APPENDIX

VESTING TENTATIVE MAP
"BRIDLE GATE"
SUBDIVISION 9586
CITY OF BRENTWOOD
COUNTY OF CONTRA COSTA
STATE OF CALIFORNIA



GRAPHIC SCALE
100 50 0 100
(IN FEET)
1 inch = 100 ft.

OWNER/DEVELOPER

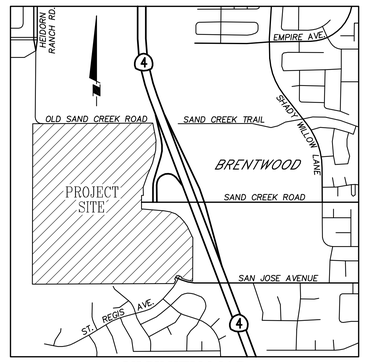
WCHB DEVELOPMENT, LLC
4021 PORT CHICAGO HIGHWAY
CONCORD, CA. 94520
(925) 671-7711

CIVIL ENGINEER

APEX CIVIL ENGINEERING & LAND SURVEYING
817 ARNOLD DRIVE, SUITE 50
MARTINEZ, CA 94553
(925) 476-8499
JON VIZCAY, PE (R.C.E. #78203)

SOILS ENGINEER

ENGEO INC.
2401 CROW CANYON ROAD, SUITE 200
SAN RAMON, CA 94583
(925) 838-1600



VICINITY MAP
NOT TO SCALE

GENERAL

ASSESSORS PARCEL NO(s):	*019-082-007*
PROJECT ADDRESS:	*WEST TERMINUS OF SAN JOSE AVENUE & SAND CREEK ROAD IN BRENTWOOD, CA*
TOTAL GROSS:	*135.31 ACRES*
PROPOSED ZONING:	*PD-PLANNED DEVELOPMENT*
GENERAL PLAN:	*R-LD: RESIDENTIAL-LOW DENSITY* *P: PARK* *P-OS: PERMANENT OPEN SPACE*
EXISTING USE:	*VACANT LAND-CATTLE GRAZING*
PROPOSED USE:	*286 SINGLE FAMILY RESIDENTIAL LOTS (4,500 SF MIN.)* *PARCEL A: 6.00 AC (PARK) (1.55 AC < 3% SLOPE)* *PARCEL B: 1.85 AC (STORM, C.3, SEWER)* *PARCEL C: 0.20 AC (LANDSCAPING)* *PARGEL D: 0.48 AC (LANDSCAPING)* *PARCEL E: 2.49 AC (STORM, C.3)* *PARCEL F: 0.14 AC (LANDSCAPING)* *PARCEL G: 3.39 AC (PARK) (3.10 AC < 3% SLOPE)* *PARCEL H: 0.05 AC (LANDSCAPING)* *PARCEL I: 25.00 AC (OPEN SPACE)* *PARCEL J: 0.04 AC (PEDESTRIAN ACCESS)* *PARCEL K: 0.02 AC (PEDESTRIAN ACCESS)*
PROPOSED DENSITY:	*3 DU/AC (SOUTH OF SAND CREEK ROAD CENTERLINE)*
FEMA FLOOD DESIGNATION:	*ZONES "A", "AE" & "X" (FIRM MAPS 06013C0335F & 06013C0353F, DATED 06-16-2009)*
EXISTING TOPOGRAPHY DATE:	*05-23-2017*

FACILITIES

WATER:	*CITY OF BRENTWOOD*
SEWER:	*CITY OF BRENTWOOD*
STORM DRAIN:	*CITY OF BRENTWOOD*
GAS & ELECTRIC:	*PACIFIC GAS & ELECTRIC*
TELEPHONE:	*AT&T*
CABLE:	*COMCAST*
FIRE PROTECTION:	*CONTRA COSTA COUNTY*

NOTE

PURSUANT TO SECTION 66456.1 OF THE SUBDIVISION MAP ACT, THE OWNER RESERVES THE RIGHT TO FILE MULTIPLE MAPS ON THE LANDS SHOWN ON THIS MAP.

BENCHMARK

CONTRA COSTA COUNTY BM. NO. 982, A P.K. NAIL SET IN SOUTWEST LEG OF P.G.&E. TOWER 200 FEET EAST OF BRIDGE CROSSING SAND CREEK ON OLD SAND CREEK ROAD 40 FEET NORTH OF CENTERLINE OF ROAD. ELEV.=135.43

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS MAP IS DETERMINED BY FOUND MONUMENTS SHOWN HEREON; THE BEARING BEING N89°28'41"W BETWEEN STATION 2129 AND STATION 2120 PER RECORD OF SURVEY NO. 2496 (118 LSM 40). THE BEARING SHOWN ARE ON CALIFORNIA COORDINATE SYSTEM ZONE III (NAD 83). MULTIPLY DISTANCES AS SHOWN BY 0.99993501 TO OBTAIN GRID DISTANCES.

SHEET INDEX

SHEET No.	DESCRIPTION
1	TITLE SHEET
2	PRELIMINARY GRADING & UTILITY PLAN

LEGEND

EXISTING	*PROPOSED*	*ITEM*
		PAVEMENT
		SIDEWALK
		CURB & GUTTER
8" SS	8" SS	*SANITARY SEWER MAIN*
		SANITARY SEWER MANHOLE
8" SD	8" SD	*STORM DRAIN LINE*
		STORM DRAIN MH
		INLET OR CATCH BASIN
		FIRE HYDRANT
6" W	6" W	*WATER LINE & VALVE*
		WATER METER & BACKFLOW DEVICE
		AIR RELEASE VALVE
		SIGN
		STREET LIGHT
		UTILITY POLE
		STREET MONUMENTS
71	75	*CONTOURS*
		RIGHT-OF-WAY
		LOT BOUNDARY
		ADJACENT PROPERTY LINE
		DIRECTION OF DRAINAGE FLOW
		RETAINING WALL
		ABANDONED OIL WELL

THE CITY OF BRENTWOOD
PUBLIC WORKS DEPARTMENT
708 Third Street, Brentwood, CA 94513
Ph: (925) 516-5420 • FAX: (925) 516-5421
www.ci.brentwood.ca.us

APEX CIVIL ENGINEERING & LAND SURVEYING
817 Arnold Drive, Ste. 50
Martinez, CA 94553
Ph: (925) 476-8499
www.apexce.net

NO.	REVISIONS	NO	BY	DATE

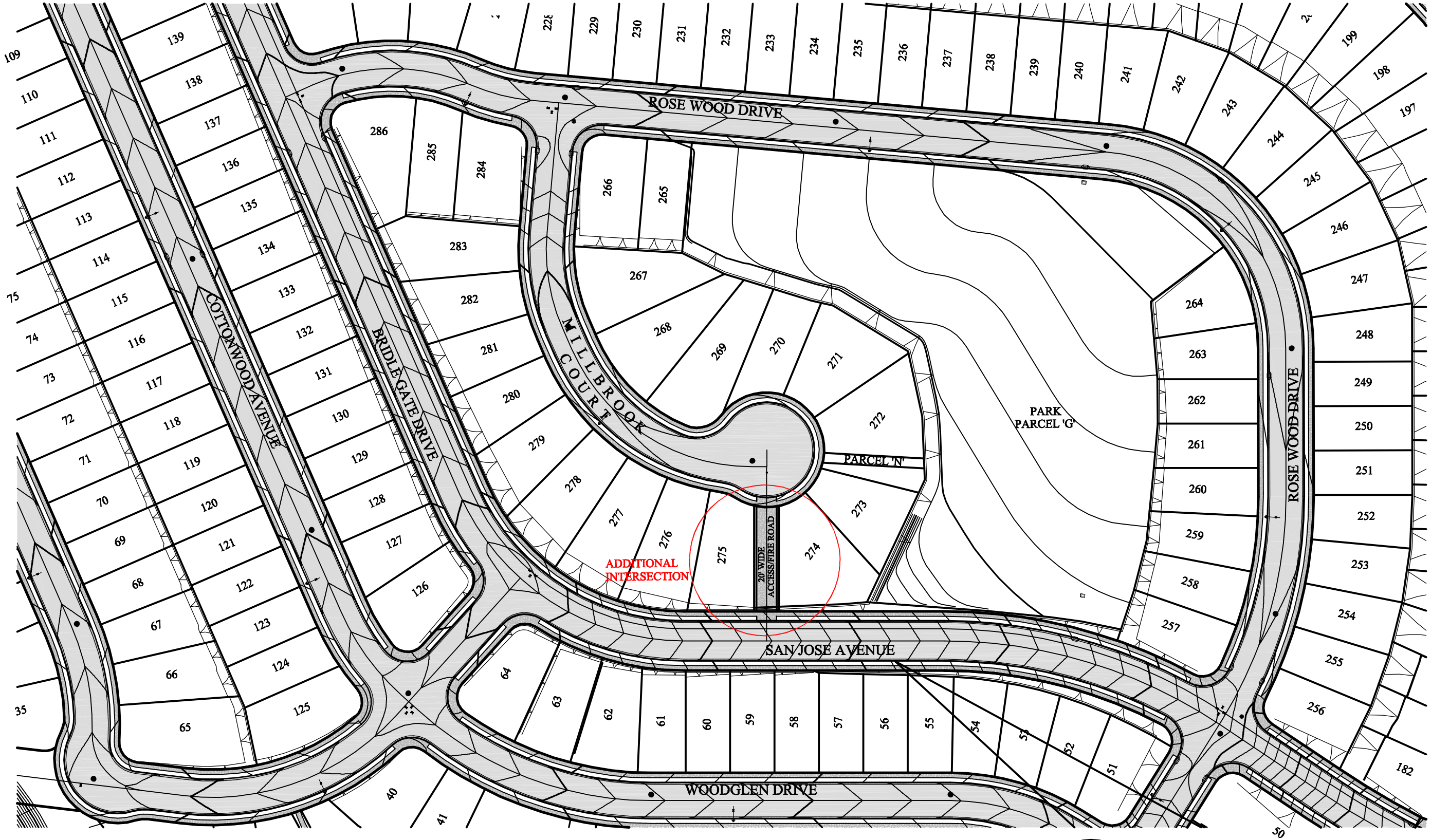
DESIGN: JV
DRAWN: STAFF
CHECKED: JV
PROJECT #: 20066

REGISTERED PROFESSIONAL ENGINEER
JON J. VIZCAY
NO. 78203
CIVIL
STATE OF CALIFORNIA

VESTING TENTATIVE MAP
"BRIDLE GATE" SUB # 9586 BRENTWOOD, CA

SHEET 1 OF 2
DATE 01-06-2022

BRIDLE GATE - VESTING TENTATIVE MAP - 01-06-2022



GRAPHIC SCALE

100 50 0 100

(IN FEET)

1 inch = 100 ft.

N

APEX
CIVIL ENGINEERING & LAND SURVEYING

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Martinez, CA 94553
Ph: (925) 476-8499

ADDITIONAL INTERSECTION "BRIDLEGATE" BRENTWOOD, CA

DRAWN BY: STAFF	SHEET 1 OF 1
PROJECT NO: 20066	
SCALE: 1"=100'	DATE: 01-31-23