CITY OF MORGAN HILL

PLANNING DIVISION

17575 Peak Avenue Morgan Hill CA 95037 (408) 778-6480 Fax (408) 779-7236
Website Address: www.morgan-hill.ca.gov

MITIGATED NEGATIVE DECLARATION

I. DESCRIPTION OF PROJECT:

Date: August 6, 2021

Application #s: SR2020-0027/EA2020-0020

APN: 726-36-059

Project Title: The Monterey-Miner (JEMCOR) Apartments Project

Project Location: North of Monterey Road and Madrone Parkway Intersection
Morgan Hill, CA 95037

Project Proponent: Jemcor Development Partners
1700 South El Camino Real, Ste 400
San Mateo, CA 94402

Project Description: The Monterey-Miner (JEMCOR) Project would include the demolition of all on-site structures to construct two, two-story buildings and 12, three-story buildings containing 249 multi-family units, all of which would be affordable to low-income households. Project amenities would be located in a separate building on-site and would include a club terrace containing a fitness room, computer room, kitchen, clubroom, and leasing office. The proposed project would require City approval of Design Review. Because 100 percent of the proposed units would be affordable to lower income households, the proposed project would qualify for a density bonus and is expected to follow the entitlement guidelines of the Senate Bill 330 program and Government Code Section 65915 regarding density bonus.

The proposed project would require the following City approval:

- Design Review Permit

II. DETERMINATION

In accordance with the City of Morgan Hill procedures for compliance with the California Environmental Quality Act (CEQA), the City has completed an Initial Study to determine whether the proposed project may have a significant adverse effect on the environment. On the basis of that study, the City makes the following determination:

- Although the project, as proposed, could have had a significant effect on the environment, there will not be a significant effect in this case because mitigation measures will be included in the project, and, therefore, this **MITIGATED NEGATIVE DECLARATION** has been prepared.

III. MITIGATION AND AVOIDANCE MEASURES

A. Biological Resources

IV-1 *If construction is proposed during the breeding season (February 1 to August 31), a pre-construction nesting survey for raptors and other protected migratory birds shall be conducted by a qualified biologist and submitted to the City of Morgan Hill Development Services Department for review no more than 14 days prior to the start of construction. Pre-construction surveys during the non-breeding season (September 1 to January 31) are not necessary for birds, including roosting raptors, as they are expected to abandon their roosts during construction. If these species are deemed absent from the area, no further mitigation is required and construction may occur within 14 days following the survey during the early nesting season (February to May) and within 30 days following the survey during the late nesting season (June to August).*

If nesting migratory birds or raptors are detected on or adjacent to the site during the survey, a suitable construction-free buffer shall be established around all active nests. The precise dimension of the buffer (250-foot minimum for certain raptors) shall be determined by the qualified biologist at that time and may vary depending on location, topography, type of construction activity, and species. The buffer areas shall be enclosed with temporary fencing, and construction equipment and workers shall not enter the enclosed setback areas. Buffers shall remain in place for the duration of the breeding season or until it has been confirmed by a qualified biologist that all chicks have fledged and are independent of their parents.

IV-2. *The project applicant shall mitigate for the removal of the Ordinance Sized Trees located within the project site, as identified in the tree survey prepared for the proposed project, by providing an on-site replacement planting at a minimum 1:1 ratio with 15-gallon minimum size trees.*

For the Ordinance Sized Trees to be preserved as part of the project, the project applicant shall retain a certified arborist to prepare a tree protection plan, subject to review and approval by the Development Services Department. The plan shall demonstrate how any retained trees are to be protected during and after construction. The tree protection plan may include, but not be limited to, the following:

- *Locate structures, grade changes, etc. as far as feasible from the 'dripline' area of the tree.*
- *Avoid root damage through grading, trenching, compaction, etc., at least within an area 1.5 times the 'dripline' area of trees. Where root damage cannot be avoided, roots encountered (over one inch in diameter) should be exposed approximately 12 inches beyond the area to be disturbed (towards tree stem), by hand excavation, or with specialized hydraulic or pneumatic equipment, cut cleanly with hand pruners or power saw, and immediately back-filled with soil. Tearing, or otherwise disturbing the portion of the root(s) to remain, shall be avoided.*
- *A temporary fence shall be constructed as far from the tree stem (trunk) as possible, completely surrounding the tree, and six to eight feet in height. 'No parking or storage' signs shall be posted outside/on the fencing. Postings shall not be attached to the main stem of the tree.*

- *Vehicles, equipment, pedestrian traffic, building materials, debris storage, and/or disposal of toxic or other materials shall not be permitted inside of the fenced off area.*
- *The project applicant shall avoid pruning immediately before, during, or immediately after construction impact. Perform only that pruning which is unavoidable due to conflicts with proposed development. Aesthetic pruning should not be performed for at least one to two years following completion of construction.*
- *Trees that will be impacted by construction may benefit from fertilization, ideally performed in the fall, and preferably prior to any construction activities, with not more than six pounds of actual nitrogen per 1,000 square feet of accessible 'drip line' area or beyond.*
- *The 'rooting' area shall be mulched with an acidic, organic compost or mulch.*
- *The project applicant shall arrange for periodic (Biannual/Quarterly) inspection of tree's condition, and treatment of damaging conditions (insects, diseases, nutrient deficiencies, etc.) as such conditions occur, or as appropriate.*
- *Subject to the discretion of the Development Services Department, individual trees likely to suffer significant impacts may require specific, more extensive efforts and/or a more detailed specification than those contained within the above general guidelines.*

B. Geology and Soils

VII-1 *All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the Director of Public Works/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 Engineering Study prepared for the proposed project by Geo-Engineering Solutions are properly incorporated and utilized in the project design.*

C. Hazards and Hazardous Materials

IX-1 *Under the oversight of the Santa Clara County Department of Environmental Health (SCCDEH), the project applicant shall remove all wrecked vehicles and scrap metal from the site prior to implementation of the Workplan for Shallow Soil Remediation prepared by GeoSolve (April 12, 2021). The SCCDEH shall oversee implementation of the Workplan for Shallow Soil Remediation, which shall include, but shall not be limited to, the excavation and disposal of the COCs identified in the environmental investigations conducted by Earth Systems Pacific (March 26, 2020) and GeoSolve (October 5, 2020) by a State-licensed hazardous waste contractor, and the collection of confirmation soil samples to be analyzed by a state-certified hazardous waste testing laboratory for diesel (TEPHd), motor oil (TEPHmo), chromium, lead, and nickel . A qualified field geologist shall be present to observe excavation, disposal, and soil collection activities. The field geologist shall prepare a report summarizing the results of the Workplan for Shallow Soil Remediation upon completion of soil remediation activities. The report shall be submitted to the City of Morgan Hill Development Services Department for review and approval prior to demolition activities.*

IX-2 *Prior to issuance of a demolition permit for on-site structures, the project applicant shall consult with certified Asbestos and/or Lead Risk Assessors to complete and submit for review to the Building Department an asbestos and lead survey. If asbestos-containing materials or lead-containing materials are not discovered during the survey, further mitigation related to asbestos-containing materials or lead-containing materials shall not be required. If asbestos-containing materials and/or lead-containing materials are discovered by the survey, the project applicant shall prepare a work plan to demonstrate how the on-site asbestos-containing materials and/or lead-containing materials shall be removed in accordance with current California Occupational Health and Safety (Cal-OSHA) Administration regulations and disposed of in accordance with all CalEPA regulations, prior to the demolition and/or removal of the on-site structures. The plan shall include the requirement that work shall be conducted by a Cal-OSHA registered asbestos and lead abatement contractor in accordance with Title 8 CCR 1529 and Title 8 CCR 1532.1 regarding asbestos and lead training, engineering controls, and certifications. The applicant shall submit the work plan to the City for review and approval. The City has the right to defer the work plan to the Santa Clara County Department of Environmental Health for additional review. Materials containing more than one (1) percent asbestos that is friable are also subject to BAAQMD regulations. Removal of materials containing more than one (1) percent friable asbestos shall be completed in accordance with BAAQMD Section 11-2-303.*

D. Noise

XIII-1 *Noise-generating construction activities associated with the proposed project shall only occur within the hours identified in MHMC Section 8.28.040(D). The above language shall be included on final project improvement plans prior to approval by the City of Morgan Hill Development Services Department.*

XIII-2 *To the maximum extent practical, the following measures shall be implemented during project construction:*

- *All noise-producing project equipment and vehicles using internal-combustion engines shall be equipped with manufacturers-recommended mufflers and be maintained in good working condition;*
- *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 construction;*
- *Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible;*
- *Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors;*
- *Project area and site access road speed limits shall be established and enforced during the construction period.*

XIII-3 *Mechanical equipment shall be selected and designed to reduce impacts on surrounding to meet the City's noise level requirements. A qualified acoustical consultant shall be retained to review mechanical noise as these systems are selected to determine specific noise reduction measures necessary, if any, to reduce noise to comply with the City's noise level requirements. Noise reduction measures could include, but are not limited to, selection of equipment that emits low noise levels*

and the installation of noise barriers, such as enclosures or parapet walls to block the line-of-sight between the noise source and the nearest receptors. The proposed mechanical equipment systems and noise reduction measures shall be included on project improvement plans and building plans, subject to review and approval by the City of Morgan Hill Development Services Department.

XIII-4 *During construction activities associated with the proposed project, any compaction required within 26 feet of existing structures adjacent to the project site shall be accomplished by using static drum rollers rather than vibratory compactors. The above requirement shall be included via notation on any grading plans approved for the project to the satisfaction of the City of Morgan Hill Development Services Department*

E. Transportation

XVII-1 *The project applicant shall install a dedicated eastbound left-turn lane on Madrone Parkway to serve the project driveway. The turn lane shall be designed in accordance with City standards and included on project Improvement Plans to be reviewed and approved by the City Engineer.*

XVII-2 *The project applicant shall install a right-turn channelization island at the Monterey Road Driveway with the project site to restrict inbound and outbound left-turns at the driveway. Design of the channelization island shall be included on project Improvement Plans to be reviewed and approved by the City Engineer.*

III. FINDING

The City of Morgan Hill hereby finds that the proposed project could have a significant effect on the environment; however, there would not be a significant effect in this case because mitigation measures summarized above and described in the initial study will reduce the impacts to a less-than-significant level.

_____ _____

Jennifer Carman, Development Services Director Date

City of Morgan Hill
Development Services Department

Monterey-Miner (JEMCOR) Apartments Project

Initial Study Checklist

August 2021

Prepared by

RANEY PLANNING & MANAGEMENT, INC. 20 years
1501 Sports Drive, Suite A, Sacramento, CA 95834

TABLE OF CONTENTS

A. BACKGROUND 1

B. SOURCES 2

C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED 4

D. DETERMINATION 5

E. BACKGROUND AND INTRODUCTION 6

F. PROJECT DESCRIPTION 6

G. ENVIRONMENTAL CHECKLIST 18

I. AESTHETICS 19
II. AGRICULTURE AND FOREST RESOURCES 23
III. AIR QUALITY 24
IV. BIOLOGICAL RESOURCES 33
V. CULTURAL RESOURCES 39
VI. ENERGY 42
VII. GEOLOGY AND SOILS 45
VIII. GREENHOUSE GAS EMISSIONS 50
IX. HAZARDS AND HAZARDOUS MATERIALS 60
X. HYDROLOGY AND WATER QUALITY 70
XI. LAND USE AND PLANNING 76
XII. MINERAL RESOURCES 78
XIII. NOISE 79
XIV. POPULATION AND HOUSING 93
XV. PUBLIC SERVICES 95
XVI. RECREATION 97
XVII. TRANSPORTATION 98
XVIII. TRIBAL CULTURAL RESOURCES 103
XIX. UTILITIES AND SERVICE SYSTEMS 104
XX. WILDFIRE 108
XXI. MANDATORY FINDINGS OF SIGNIFICANCE 109

APPENDICES

Appendix A: Air Quality and Greenhouse Gas Modeling Results
Appendix B: Tree Report
Appendix C: Geotechnical Engineering Study
Appendix D: Phase I and Limited Phase II Environmental Site Assessment
Appendix E: Phase II Environmental Site Assessment
Appendix F: Workplan for Shallow Soil Remediation
Appendix G: Exterior Noise Level Assessment at Common Outdoor Activity Areas
Appendix H: Trip Generation and Operations Analysis
Appendix I: Vehicle Miles Travelled Assessment

INITIAL STUDY

August 2021

A. BACKGROUND

1. Project Title: Monterey-Miner (JEMCOR) Apartments Project

2. Lead Agency Name and Address: City of Morgan Hill
Development Services Department
Morgan Hill, CA
17575 Peak Avenue
Morgan Hill, CA 95037

3. Contact Person and Phone Number: Gina Paolini
Principal Planner
(408) 310-4676

4. Project Location: North of the Monterey Road and Madrone Parkway Intersection
Morgan Hill, CA 95037
APN 726-36-059

5. Project Sponsor's Name and Address: Jonathan Emami
Jemcor Development Partners
1700 South El Camino Real, Suite 400
San Mateo, California 94402

6. Existing General Plan Designation: Mixed-Use Flex (MU-F)
Residential Attached Low

7. Existing Zoning Designation: Mixed-Use Flex (MU-F) (7 to 24 du/ac)
Residential Attached Low (6 to 16 du/ac)

8. Required Approvals from Other Public Agencies: Santa Clara County
Environmental Health

9. Surrounding Land Uses and Setting:

The project site consists of a 7.5-acre parcel located north of the Monterey Road and Madrone Parkway intersection in the City of Morgan Hill, California. The site is identified by Assessor's Parcel Number (APN) 726-36-059. The City's General Plan land use and zoning designations for the site are Residential Attached Low and Mixed-Use Flex (MU-F). Currently, the site is developed with a vehicle scrap yard and U-Haul rental yard. A large warehouse structure and single-story building are located within the southwestern portion of the site. Dozens of vehicles have historically been stored on the site, but have since been removed. Scattered trees are planted along the southern, northern, and western site boundaries.

The project site is bounded by Monterey Road to the west and Madrone Parkway to the south. Surrounding uses include a vacant lot (designated for future residential development) to the north beyond which are single-family residences, commercial and industrial uses to the west and south across Madrone Parkway, and single-family residences to the east. In addition, a storm drainage canal runs parallel to the project site's southern boundary and terminates in a water quality basin located south of the project site.

10. Project Description Summary:

The proposed project would include demolition of all on-site structures in order to construct two, two-story buildings and 12, three-story buildings containing 249 multi-family units, all of which would be affordable to lower income households. Project amenities would be located in a separate building and would include a club terrace containing a fitness room, computer room, kitchen, clubroom, and leasing office. The proposed project would require City approval of Design Review. Because 100 percent of the proposed units would be affordable to lower income households, the proposed project would qualify for a density bonus and is expected to follow the entitlement guidelines of the Senate Bill (SB) 330 program and Government Code Section 65915 regarding density bonus.

B. SOURCES

The following documents are referenced information sources used within this analysis:

1. Areana Flores, Bay Area Air Quality Management District. Personal communication [phone], Jacob Byrne, Senior Associate/Air Quality Technician, Raney Planning & Management. September 17, 2019.
2. Association of Bay Area Governments. *Dam Failure Inundation Hazard Map for Morgan Hill*. 1995. Available at: http://www.mhcert.com/prepare/dam_failure.shtml. Accessed April 2021.
3. Association of Bay Area Governments. *Resilience Program.* Available at: http://gis.abag.ca.gov/website/Hazards/?hlyr=liqSusceptibility. Accessed October 2019.
4. Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines* [pg. 7-1]. May 2017.
5. California Air Resources Board. *The 2017 Climate Change Scoping Plan Update.* January 20, 2017.
6. California Department of Conservation. *California Important Farmland Finder.* Available at: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed April 2021.
7. California Department of Resources Recycling and Recovery (CalRecycle). *Facility/Site Summary Details: Johnson Canyon Sanitary Landfill (27-AA-0005)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2636?siteID=1971. Accessed May 2021.
8. California Department of Transportation. *Scenic Highways*. Available at: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed April 2021.
9. California Energy Commission. *Title 24 2019 Building Energy Efficiency Standards FAQ*. November 2018.
10. City of Morgan Hill. *2015 Urban Water Management Plan*. 2016.
11. City of Morgan Hill. *2035 General Plan, City of Morgan Hill.* Adopted July 2016.
12. City of Morgan Hill. *City Council Staff Report 2163, Accept Report Regarding Wastewater System Needs and Rate Study Schedule.* February 6, 2019.

13. City of Morgan Hill. *City of Morgan Hill Wildland Urban Interface Map.* March 2009.
14. City of Morgan Hill. *Emergency Operations Plan.* January 11, 2018.
15. City of Morgan Hill. *Housing Element.* Adopted February 18, 2015.
16. City of Morgan Hill. *Morgan Hill 2035 General Plan Final Environmental Impact Report.* Adopted July 2016.
17. Dwight Good, Assistant Chief Cooperative Fire Protection, Morgan Hill Fire Department. Personal communication [phone] with Nick Pappani, Vice President, Raney Planning and Management, Inc. June 1, 2021.
18. Earth Systems Pacific. *Phase I Environmental Site Assessment and Limited Phase II Soil Screening, Monterey Road Development, 18960 Monterey Road, Morgan Hill, California.* March 26, 2020.
19. Federal Emergency Management Agency. *National Flood Hazard Layer FIRMette* 06085C0443H. Accessed May 2021.
20. Geo-Engineering Solutions, Inc. *Geotechnical Engineering Study, Residential Development, 18960 Monterey Road, Morgan Hill, CA 95037*. August 25, 2020.
21. GeoSolve, Inc. *Phase II Environmental Site Assessment for Parts and Tow 18960 Monterey Road, Morgan Hill, California, for JEMCOR Development Partners.* October 5, 2020.
22. GeoSolve, Inc. *Workplan for Shallow Soil Remediation, for Parts and Tow, 18960 Monterey Road, Morgan Hill, California, for JEMCOR Development Partners, LLC*. April 12, 2021.
23. Governor's Office of Planning and Research. *Technical Advisory on Evaluation Transportation Impacts in CEQA*. December 2018.
24. Hexagon Transportation Consultants, Inc. *Trip Generation and Operations Analysis for the Proposed Monterey-Madrone Affordable Housing Development in Morgan Hill, California.* March 23, 2021.
25. Hexagon Transportation Consultants, Inc. *VMT Assessment for the Proposed Monterey-Madrone Residential Development in Morgan Hill, California.* April 15, 2021.
26. Illingworth & Rodkin, Inc. *Monterey & Madrone, Morgan Hill, California – Assessment of Exterior Noise Levels at Common Outdoor Activity Areas*. October 20, 2020.
27. Illingworth & Rodkin, Inc. *Peninsula Heights Noise and Vibration Assessment, San Mateo, California.* September 17, 2020.
28. Moki Smith Tree Specialists, Inc. *Tree Summary Report.* June 9, 2021.
29. National Renewable Energy Laboratory. *California Plug-In Electric Vehicle Infrastructure Projections: 2017-2025 (Table C.1)*. 2018.
30. Salinas Valley Solid Waste Authority. *2019-20 Annual Report*. 2021.
31. Santa Clara County. *Comprehensive Land Use Plan, Santa Clara County, South County Airport.* Amended November 16, 2016.
32. Santa Clara Valley Habitat Agency. *Geobrowser*. Available at: http://www.hcpmaps.com/habitat/. Accessed March 2020.
33. Santa Clara Valley Transportation Authority. *2015 Congestion Management Plan.* October 2015.
34. Santa Clara Valley Water District. *2016 Groundwater Management Plan, Santa Clara and Llagas Subbasins.* November 2016.
35. Santa Clara Valley Water District. *C1: Anderson Dam Seismic Retrofit.* Available at: https://www.valleywater.org/anderson-dam-project. Updated November 2018.
36. South Coast Air Quality Management District. 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 October 2020.

37. Weather Spark. *Average Weather in Morgan Hill*. Available at: https://weatherspark.com/y/1089/Average-Weather-in-Morgan-Hill-California-United-States-Year-Round#:~:text=The%20predominant%20average%20hourly%20wind,of%2095%25%20on%20August%201. Accessed March 2021.

C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Less Than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

☐ **Aesthetics**	☐ **Agriculture and Forest 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
Gina Paolini, Principal Planner	City of Morgan Hill
Printed Name	For

E. BACKGROUND AND INTRODUCTION

The mitigation measures prescribed for environmental effects described in this Initial Study/Mitigated Negative Declaration (IS/MND) would be implemented in conjunction with the project, as required by CEQA. The mitigation measures would be incorporated into the project through project Conditions of Approval. The City would adopt findings and a Mitigation Monitoring/Reporting Program for the project in conjunction with approval of the project.

In July 2016, the City of Morgan Hill adopted the 2035 General Plan,[1] as well as an associated Environmental Impact Report (EIR) for the updated General Plan.[2] The General Plan EIR is a program EIR, prepared pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations [CCR], Sections 15000 *et seq*.). The General Plan EIR analyzed full implementation of the General Plan and identified measures to mitigate the significant adverse impacts associated with the General Plan. The City of Morgan Hill 2035 General Plan designates approximately 70 percent of the site as Residential Attached Low (6 to 16 dwelling units per acre [du/ac]) and approximately 30 percent of the site as MU-F (7 to 24 du/ac). Because the proposed project would develop 100 percent deed-restricted affordable housing for lower income households, the proposed project is eligible to utilize an 80 percent density bonus above the base density in accordance with Government Code Section 65915(f)(3)(D)(i), which would allow a maximum density of 33.12 du/ac on the 7.5-acre project site. The proposed project would include multi-family residential uses at a density of 33 du/ac. Thus, the proposed project would be consistent with the General Plan land use designations with approval of the density bonus.

Pursuant to Section 15152 of the CEQA Guidelines, a project which is consistent with the General Plan and zoning of the City may tier from the analysis contained in the General Plan EIR, incorporating by reference the general discussions from the broader EIR. Given that the proposed project would be consistent with the site's current General Plan land use designations of MU-F and Residential Attached Low, the environmental analysis contained in this IS/MND tiers, where applicable, from the General Plan EIR in accordance with CEQA Guidelines Section 15152. Because the density is significantly higher than that analyzed in the General Plan EIR, the larger density bonus project requires additional CEQA analysis for approval.

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 a 7.5-acre parcel located north of the Monterey Road and Madrone Parkway intersection (see Figure 1 and Figure 2). The site is identified by APN 726-36-059. The City's General Plan land use and zoning designations for the site are MU-F and Residential Attached Low. Currently, the project site is developed with a vehicle scrap yard and U-Haul rental yard. A large warehouse structure associated with the vehicle scrap yard is located within the southwestern portion of the site, as well as a single-story building operated by the U-Haul rental yard just northwest of the warehouse. Inoperable vehicles have historically been stored on the site, but have since been removed. The project site is currently accessed by one driveway connected to Madrone Parkway. Scattered trees are planted along the site boundaries. The topography of the site is relatively flat, with an elevation of approximately 349 to 350 feet above mean sea level (msl).

---

1 City of Morgan Hill. *2035 General Plan, City of Morgan Hill.* Adopted July 2016.

2 City of Morgan Hill. *Morgan Hill 2035 Final Environmental Impact Report.* Adopted July 2016.

Figure 1
Regional Project Location

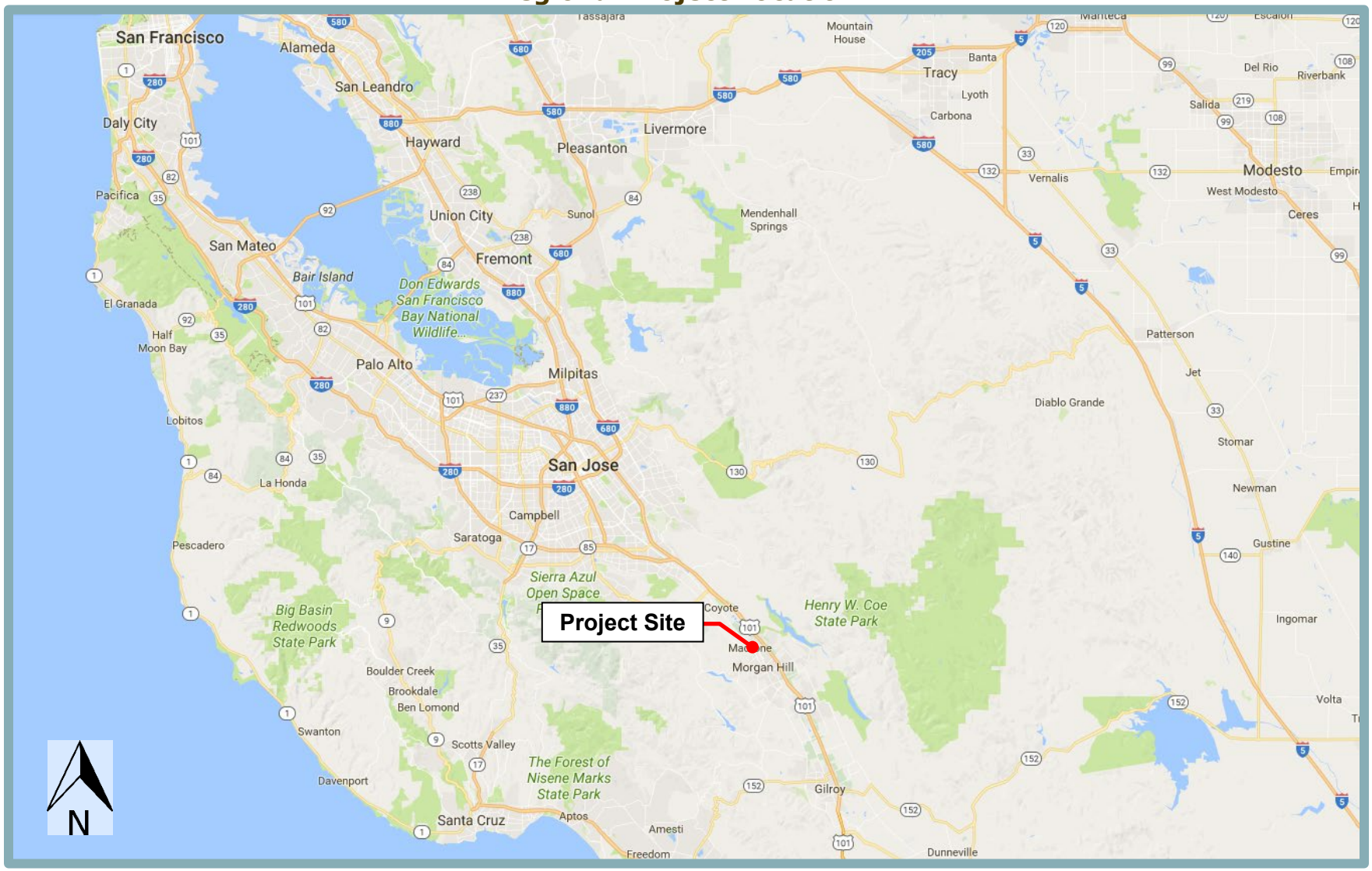


Figure 2
Project Vicinity Map



The project site is generally bounded by Monterey Road to the west and Madrone Parkway to the south. A storm drainage canal runs parallel to the southern boundary of the project site and terminates in a water quality basin located south of the project site. A vacant lot (designated for future residential uses) is located north of the site, beyond which are single-family residences. Single-family residences are also located east of the site. In addition, commercial and industrial uses, such as the Madrone Food Market, the Rancho Motel, and Paramit Corporation, are located to the west and south of the site.

Project Components

The existing warehouse structure and single-story building within the southwestern portion of the project site would be demolished as part of project development. In addition, soil remediation would be performed in limited areas under the supervision of the Santa Clara County Health Department. After demolition and soil remediation, the proposed project would construct 246 affordable multi-family units and three manager's units, spread across two, two-story buildings and 12, three-story buildings, a club terrace, and circulation and utility improvements (see Figure 3). The two, two-story buildings, Building 12 and Building 13, have been designed as two-story structures to soften the transition between the proposed project's three-story buildings and the existing single-family homes east/northeast of the project site on Taylor Avenue.

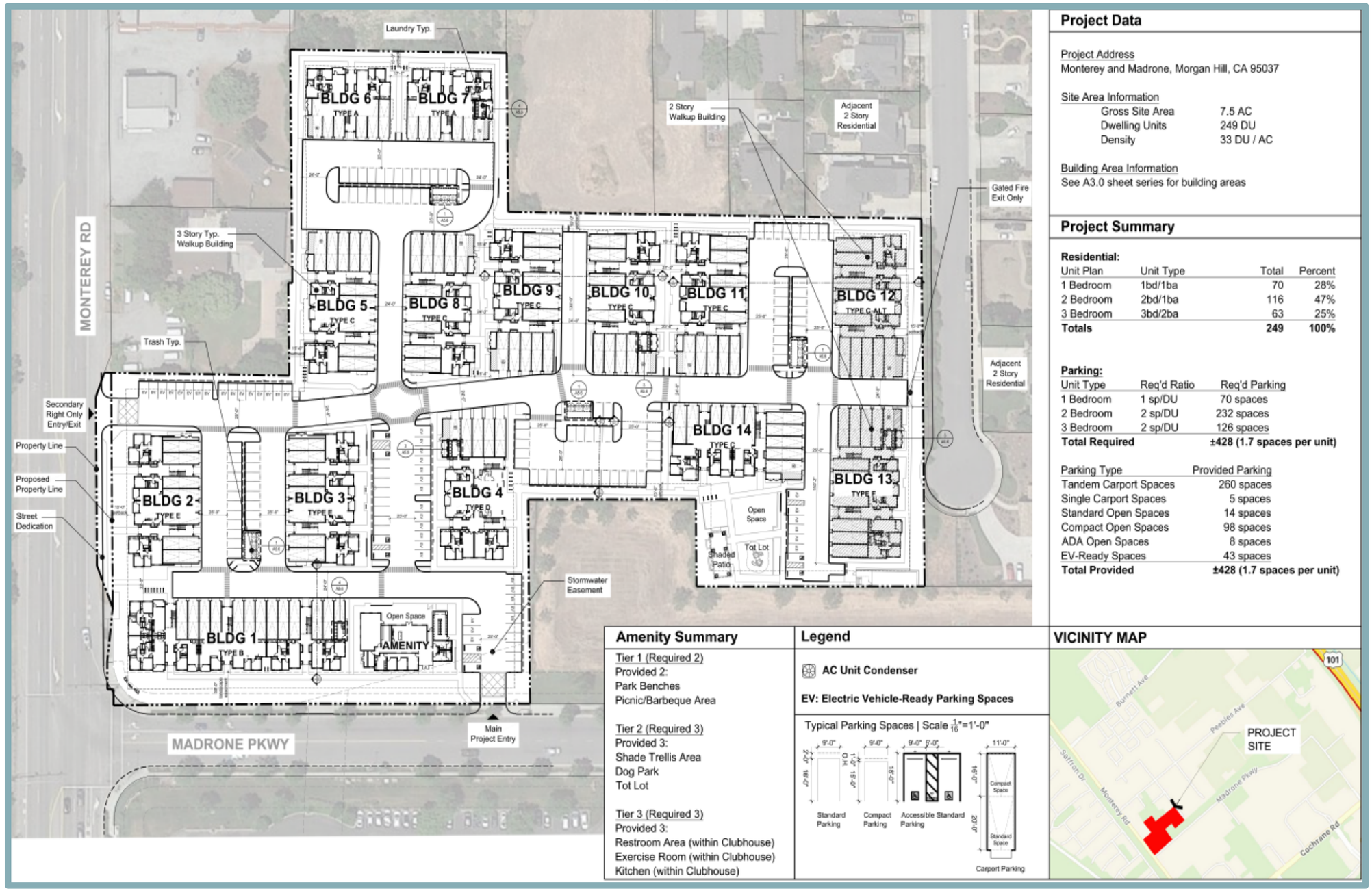
Of the 249 units, 246 would be affordable to lower income households, and three of the units would be manager's units. The proposed residences would consist of one-, two- and three-bedroom units varying between 617 square feet and 1,122 square feet. The units would include living areas, kitchens, bathroom areas, and private patios/balconies. The approximately 4,000 square-foot one-story clubhouse would be located to the east of Building 1, near the main project entry on Madrone Parkway. The clubhouse would be accessible to all residents and would include a fitness room, a computer room, a kitchen, a clubroom, a mailroom, and public restrooms. The leasing office and associated workrooms would also be located in the clubhouse.

Parking, Access, and Circulation

To meet the required parking ratio, the proposed project would include a total of 428 parking spaces. Of the 428 parking spaces, 260 would be tandem carport spaces, 98 would be compact open spaces, 43 would be electric-vehicle (EV) ready parking spaces (nine of which would be required to have EV-charging stations in accordance with Morgan Hill Municipal Code [MHMC] Section 18.72.040), 14 would be standard open spaces, eight would be Americans with Disabilities (ADA)-compliant open spaces, and five would be single carport spaces. In order to comply with MHMC Section 18.72.080, which requires short-term bicycle spaces to be provided at a rate of 10 percent of the total number of vehicle parking spaces, the proposed project would include 56 short-term bicycle parking spaces located throughout the project site.

Access to the project site would be provided by two driveways. The main driveway would be located along the southern project boundary on Madrone Parkway, and the secondary, right-only driveway would be located along the western project boundary on Monterey Road. Both access driveways would be 24-feet-wide and would provide sufficient turning radii for emergency vehicle access (EVA).

Figure 3
Site Plan



Project Data

Project Address
Monterey and Madrone, Morgan Hill, CA 95037

Site Area Information

Gross Site Area	7.5 AC
Dwelling Units	249 DU
Density	33 DU / AC

Building Area Information
See A3.0 sheet series for building areas

Project Summary

Residential:

Unit Plan	Unit Type	Total	Percent
1 Bedroom	1bd/1ba	70	28%
2 Bedroom	2bd/1ba	116	47%
3 Bedroom	3bd/2ba	63	25%
Totals		**249**	**100%**

Parking:

Unit Type	Req'd Ratio	Req'd Parking
1 Bedroom	1 sp/DU	70 spaces
2 Bedroom	2 sp/DU	232 spaces
3 Bedroom	2 sp/DU	126 spaces
Total Required		**±428 (1.7 spaces per unit)**

Parking Type	Provided Parking
Tandem Carport Spaces	260 spaces
Single Carport Spaces	5 spaces
Standard Open Spaces	14 spaces
Compact Open Spaces	98 spaces
ADA Open Spaces	8 spaces
EV-Ready Spaces	43 spaces
Total Provided	**±428 (1.7 spaces per unit)**

Amenity Summary

Tier 1 (Required 2)
Provided 2:
Park Benches
Picnic/Barbeque Area

Tier 2 (Required 3)
Provided 3:
Shade Trellis Area
Dog Park
Tot Lot

Tier 3 (Required 3)
Provided 3:
Restroom Area (within Clubhouse)
Exercise Room (within Clubhouse)
Kitchen (within Clubhouse)

Legend

AC Unit Condenser

EV: Electric Vehicle-Ready Parking Spaces

Typical Parking Spaces | Scale $\frac{1}{16}$"=1'-0"

VICINITY MAP

The project would include roadway frontage improvements along Monterey Road and Taylor Avenue. With respect to Monterey Road, the applicant would dedicate approximately 15.5 feet of right-of-way to the City of Morgan Hill, within which would be included approximately 5.5 feet of roadway widening, new curb, gutter, and separated 5-foot sidewalk. Regarding the project's Taylor Avenue frontage, the project would include new curb, gutter, and attached 5-foot sidewalk, as well as dedication of right-of-way. Improvements along Taylor Avenue would also include a gated EVA entrance located centrally between Building 12 and Building 13.

Utilities

Water and sewer service for the proposed project would be provided by the City through connections to existing infrastructure located in the site vicinity. More specifically, the proposed project would include new eight-inch water connections from the proposed buildings to the existing 12-inch water mains in Monterey Road and Madrone Parkway. Additionally, new six-inch sanitary sewer lines extending from the proposed buildings would convey wastewater to a new sewer lift station near the southwest corner of the project site. From the lift station, wastewater would be pumped through a four-inch force main to a six-inch sewer line that would connect to the existing City sewer main in Monterey Road (see Figure 4). Electricity would be provided to the proposed project by Pacific Gas & Electric (PG&E), and as part of project development, the existing overhead utility lines along Monterey Road would be undergrounded.

According to the Preliminary Stormwater Control Plan, the project site would be divided into four drainage management areas (DMAs). New storm drainage inlets and internal 15- to 18-inch storm drain lines would allow stormwater runoff within DMAs 1 and 2 to flow toward one of two underground retention facilities, referred to as Stormwater Control Measure (SCM)-1 and SCM-2 within the Preliminary Stormwater Control Plan. SCM-1 would be located in the southwestern portion of the project site within Drive Aisle E. The approximate volume and footprint of SCM-1 is 12,080 cubic feet and 4,830 square feet, respectively. SCM-2 would be located in the northeastern portion of the project site within Drive Aisle K. The approximate volume and footprint of SCM-2 is 7,900 cubic feet and 3,160 square feet, respectively. With the installation of outlet control structures to manage peak flows, both retention facilities would be sized to restrict post-project flows to pre-project levels for the 2-year, 10-year, and 25-year 24-hour storm events as required by the City and the Central Coast Regional Water Quality Control Board (CCRWQCB).

Treated water from SCM-1 and SCM-2 would ultimately be routed to an existing 21-inch storm drain in Taylor Avenue. In comparison, DMAs 3 and 4 include curb, gutter, sidewalk, and landscape improvements which drain to existing public streets. Because these DMAs are within the public right-of-way and tributary to the public streets, the proposed project is not required to treat these areas pursuant to Chapter 2.3 of the C.3. Stormwater Handbook.

Common Space, Landscaping, and Fencing Improvements

Landscaping would be provided throughout the site, as shown in Figure 5. A majority of the existing trees within the project site would be removed; however, the proposed landscape plantings would exceed replacement requirements identified in MHMC Chapter 12.32. The existing trees along Madrone Parkway and two live oak trees within the project site would be protected. As shown in the Preliminary Tree Plan, approximately 213 24- to 36-inch box trees would be planted along the project site perimeters, surrounding the residential buildings, and along the drive aisles and parking medians. Street trees planted along Monterey Road would be chosen and designed in accordance with the Morgan Hill Master Street Tree Plan. The proposed landscaping improvements would also include shrubs and bushes throughout the site. In addition, a six-foot high masonry wall would be constructed along the northern site boundary.

Figure 4
Preliminary Utility Plan

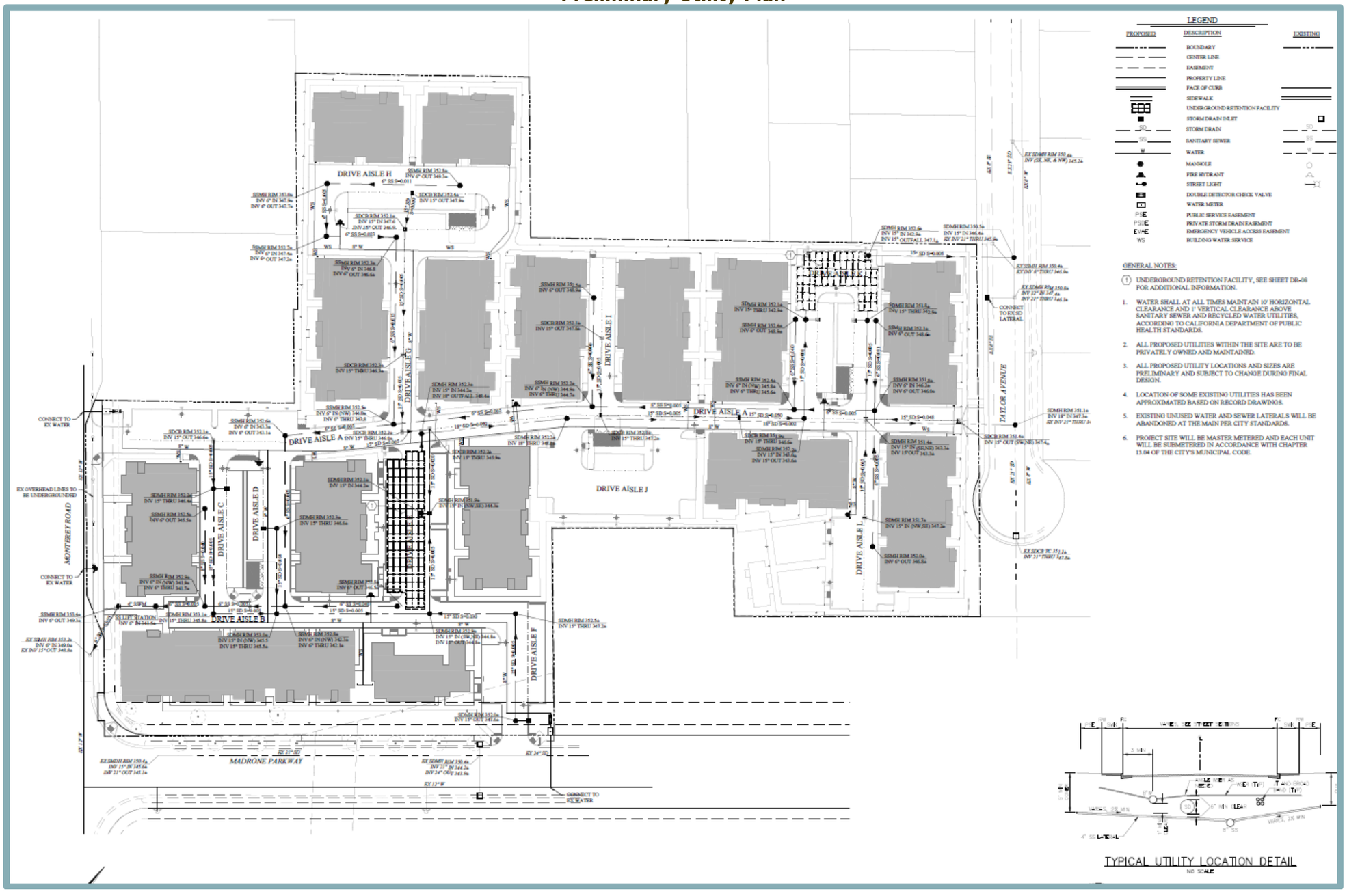
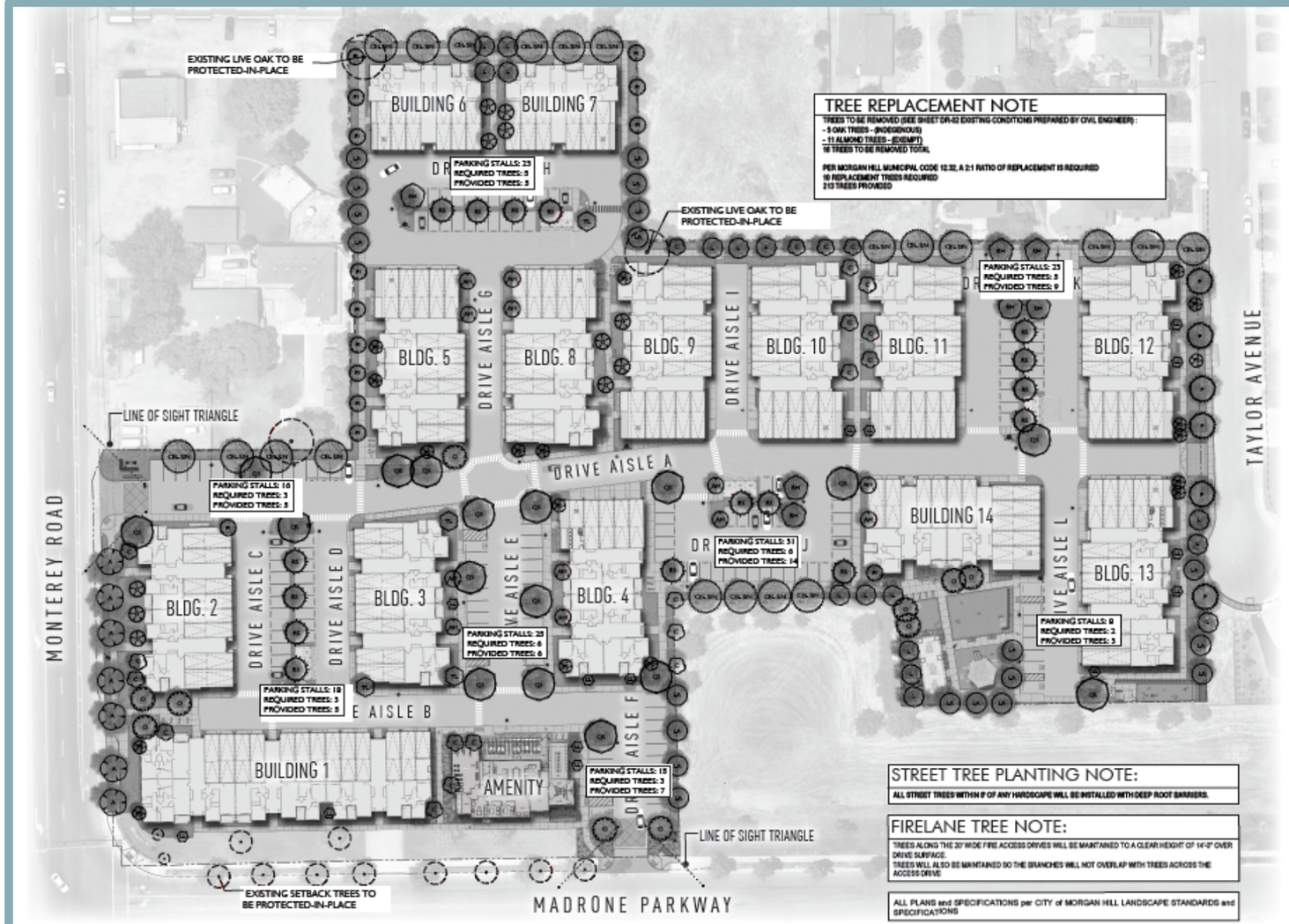


Figure 5
Preliminary Tree Plan



TREE REPLACEMENT NOTE

TREES TO BE REMOVED (SEE SHEET DR-02 EXISTING CONDITIONS PREPARED BY CIVIL ENGINEER):
- 5 OAK TREES - (INDEGENOUS)
- 11 ALMOND TREES - (EXEMPT)

18 TREES TO BE REMOVED TOTAL

PER MORGAN HILL MUNICIPAL CODE 12.32, A 2:1 RATIO OF REPLACEMENT IS REQUIRED
18 REPLACEMENT TREES REQUIRED
213 TREES PROVIDED

STREET TREE PLANTING NOTE:

ALL STREET TREES WITHIN 8' OF ANY HARDSCAPE WILL BE INSTALLED WITH DEEP ROOT BARRIERS.

FIRELANE TREE NOTE:

TREES ALONG THE 20' WIDE FIRE ACCESS DRIVES WILL BE MAINTAINED TO A CLEAR HEIGHT OF 14'-0" OVER DRIVE SURFACE.
TREES WILL ALSO BE MAINTAINED SO THE BRANCHES WILL NOT OVERLAP WITH TREES ACROSS THE ACCESS DRIVE

ALL PLANS and SPECIFICATIONS per CITY of MORGAN HILL LANDSCAPE STANDARDS and SPECIFICATIONS

PARKING LOT SHADE COVERAGE NOTE

PER MORGAN HILL MUNICIPAL CODE SECTION 18.72.070, ONE SHADE TREE SHALL BE PROVIDED FOR EVERY FIVE PARKING SPACES IN PARKING LOTS. SHADE TREES WILL HAVE MINIMUM TWENTY FOUR INCH BOX IN SIZE AND SHALL PROVIDE A MINIMUM THIRTY FOOT CANOPY AT MATURITY.

SHADE TREES SHALL BE OF A TYPE THAT CAN REACH MATURITY WITHIN FIFTEEN YEARS OF PLANTING AND SHALL BE SELECTED FORM THE CITY RECOMMENDED LIST OF CANOPY TREE SPECIES.

SHADE TREES SHALL BE ARRANGED IN A PARKING LOT TO PROVIDE MAXIMUM SHADE COVERAGE AND WILL APPROXIMATE NEARLY FIFTY PERCENT SHADE COVERAGE.

TWENTY PERCENT OF SURFACE PARKING AREA TO BE LANDSCAPED

PARKING LOT LANDSCAPING NOTE

PARKING LOT SCREENING AND PARKING LOT LANDSCAPING PER SECTIONS 18.72.063.I (PARKING DESIGN) AND 18.72.070 (PARKING LOT LANDSCAPING) OF MORGAN HILL MUNICIPAL CODE.

PLANT SCHEDULE

LARGE ACCENT TREES	BOTANICAL / COMMON NAME	SIZE	WUCOLS	QTY
	GINKGO BILOBA 'AUTUMN GOLD' MAIDENHAIR TREE	24"BOX	MODERATE	11
	LAGERSTROEMIA HYBRID 'MUSKOGEE' CRAPE MYRTLE	24"BOX	LOW	16
	OLEA EUROPAEA 'SWAN HILL' TM FRUITLESS OLIVE	36"BOX	LOW	10
	PISTACIA CHINESIS 'RED PUSH' CHINESE PISTACHE	24"BOX	MODERATE	6
MEDIUM & SMALL ACCENT TREES	BOTANICAL / COMMON NAME	SIZE	WUCOLS	QTY
	CERCIS OCCIDENTALIS WESTERN REDBUD	24"BOX	VERY LOW	21
MONTEREY ROAD STREET TREE	BOTANICAL / COMMON NAME	SIZE	WUCOLS	QTY
	ACER FREEMANII 'JEFFSRED' AUTUMN BLAZE MAPLE (per master street tree plan)	24"BOX	MODERATE	7
PROJECT PERIMETER TREES	BOTANICAL / COMMON NAME	SIZE	WUCOLS	QTY
CEL.SIN	CELTIS SINENSIS CHINESE HACKBERRY	24" B.T.H.	LOW	20
LA	LAURUS NOBILIS 'SARATOGA' SARATOGA HYBRID LAUREL	24"BOX	LOW	20
	PRUNUS ILICIFOLIA HOLLY LEAF CHERRY	24" B.T.H.	LOW	14
SURFACE PARKING & DRIVE AISLE TREES	BOTANICAL / COMMON NAME	SIZE	WUCOLS	QTY
AM	ARBUTUS X 'MARINA' HYBRID STRAWBERRY TREE	36"BOX	LOW	12
QS	QUERCUS SHUMARDII SHUMARD RED OAK	24"BOX	LOW	17
RS	RHUS LANCEA AFRICAN SUMAC	24" B.T.H.	LOW	16
RH	ROBINIA IDAHOENSIS IDAHO LOCUST	24" B.T.H.	VERY LOW	7
TL	TRISTANIA LAURINA 'ELEGANT' ELEGANT WATER GUM	24"BOX	MODERATE	4
VERTICAL ADJACENT BUILDINGS & TRASH ENCLOSURES	BOTANICAL / COMMON NAME	SIZE	WUCOLS	QTY
	FREMONTODENDRON X 'PACIFIC SUNSET' PACIFIC SUNSET FLANNEL BUSH	15 GAL.	VERY LOW	18
	LEPTOSPERMUM LAEVIGATUM AUSTRALIAN TEA TREE	24" B.T.H.	LOW	14

TOTAL # OF TREES MODERATE: 28 (14%)
TOTAL # OF TREES LOW: 185 (86%)
TOTAL # of PROPOSED TREES: 213

EXISTING TREE NOTE

TREE SURVEY AS REPORT PREPARED BY MOHR SMITH TREE SPECIALIST, INC. DATED OCTOBER 19, 2020

As shown in Figure 6, a recreation area with a tot lot and dog park would be provided behind Building 14 and Building 13, adjacent to the southern project boundary. A shaded pavilion/picnic area with three barbeque stations would be located to the west of the tot lot, and 14 park benches would be located within the recreation area and surrounding the residential buildings. In addition, an indoor club terrace would also be provided near the main project entrance and would include a fitness room, computer room, kitchen, clubroom, mailroom, and management leasing office. Furthermore, in accordance with the Morgan Hill Zoning Code, the proposed project would provide 68,917 square feet of common open space area, which primarily surrounds the proposed residential buildings and club terrace. The size of the proposed open space areas would exceed the City's required amount of 49,200 square feet of common open space area (see Figure 7).

Grading

Pursuant to the Preliminary Grading and Drainage Plan, approximately 10,200 cubic yards of soil would be cut and 8,200 cubic yards of soil would be required to be filled, thus resulting in approximately 2,000 cubic yards of soil to be exported from the site. The site would be graded to create building pads for the 14 proposed buildings and the proposed drive aisles (see Figure 8).

Density Bonus and Concessions

Because the proposed project is a 100 percent deed-restricted affordable housing development, the proposed project would qualify for a density bonus and four concessions or incentives pursuant to SB 330 and Government Code Section 65915 (Density Bonus). Incentives or concessions may include reductions in development or architectural design standards intended to reduce the cost of construction in order to facilitate the development of affordable housing. Government Code Section 65915(e)(1) also states that a project is entitled to waivers or a reduction of development standards if the standard would have the effect of physically precluding the construction of a development at the required density or with the concessions or incentives permitted.

The City's General Plan Land Use map identifies approximately 70 percent of the site as Residential Attached Low, which permits a density of six to 16 du/ac. Approximately 30 percent of the site is identified as Mixed-Use Flex, which permits a density of seven to 24 du/ac. The split General Plan land use designation (Mixed Use Flex and Residential Attached Low) allows for a maximum of 140 units. Because the proposed project would develop 100 percent deed-restricted affordable housing for lower income households, it is eligible for a density bonus of 80 percent, as allowed by Government Code 65915 – the State Affordable Housing Density Bonus program. As a result, the proposed project includes 249 units.

As is permitted by Government Code Section 65915(d)(2)(D), the project applicant has requested the following three concessions:

a. Parking Space Dimensions: Reduce the size of the garage tandem parking spaces to 10 feet by 18 feet (the MHMC requires 10 feet by 20 feet);

b. Bicycle Parking and Storage: Eliminate covered and long-term bicycle parking required by the MHMC (86 spaces required); and,

Figure 6
Conceptual Landscape Plan



Figure 7
Open Space Exhibit



OPEN SPACE CALCULATIONS		
	COMMON OPEN SPACE WITHIN SETBACK	18,483 SF
	COMMON OPEN SPACE	50,434 SF
	TOTAL COMMON OPEN SPACE	68,917 SF

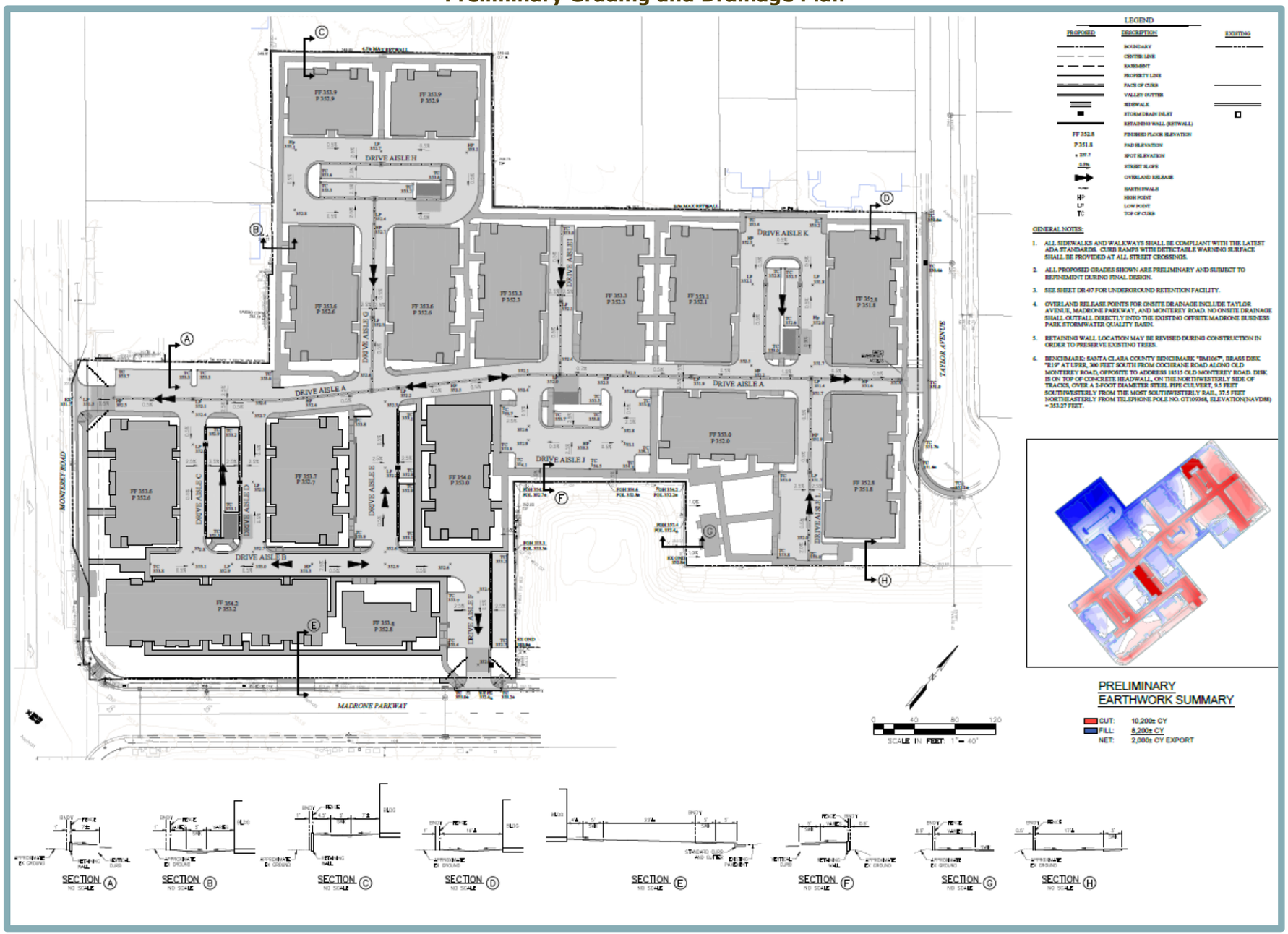
COMMON OPEN SPACE TABULATION:
15% of SITE AREA to be DEDICATED to COMMON OPEN SPACE

(328,000 s.f. net site area) x 15% =
49,200 s.f. COMMON OPEN SPACE REQUIRED
68,917 s.f. = COMMON OPEN SPACE PROVIDED

COMMON OPEN SPACE DEFINITIONS:

- minimum useable width of 15'
- minimum area of 500 s.f.
- a slope of no more than 10%
- accessibility to all units
- open to sky
- may contain amenities which enchance usability such as swimming pools, play equipement, benches, tables and barbecues.
- parking, loading and service areas may not be counted as open space

Figure 8
Preliminary Grading and Drainage Plan



c. Design Standard No. 38- Pavement Design: The Residential Development Design and Development Standards (RDDS) requires projects to incorporate decorative, pervious paving into 10 percent of paved areas to reduce the visual impact of paved surfaces. The project has reduced decorative pavement material to 2 percent.

The density bonus and above-listed concessions were approved by City Council on April 21, 2021.

Design Waivers

Separate from the concessions, the applicant has requested waivers and reductions to development standards that include a three-foot increase in building height to 38 feet (35 feet allowed), increase in Floor Area Ratio within the MU-F portion of the site, and reduced setback along Taylor Avenue (15.7 feet at its narrowest point, whereas 20 feet is required). Waivers are automatically allowed if they are necessary to achieve the full density allowed pursuant to State Density Bonus Law.

Requested/Required Entitlements

The proposed project would require the City's approval of a Design Review Permit. The purpose of Design Review is to allow the City to review all development, signs, buildings, structures, and other facilities in order to further enhance the City's appearance, as well as the livability and usefulness of the proposed project.

In addition, the project site is located in the MU-F Zoning District within Block Three of the Monterey Road Corridor for which a block level master plan (BLMP) is generally required for all projects wanting to develop within the block. Furthermore, a Conditional Use Permit is required for a residential-only project within the MU-F zone. California Senate Bill 330 (SB 330) established the "Housing Crisis Act of 2019", effective January 1, 2020, making changes to the local approval process until January 1, 2025. The project, as proposed, is consistent with the General Plan and meets the base zoning standards; therefore, although a BLMP, PD master plan and a Conditional Use Permit for the site are required by the MHMC, SB 330 supersedes these requirements.

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,c. The Morgan Hill General Plan does not designate official scenic view corridors or vistas. However, according to the General Plan, the hillsides that surround the City to the east and west are considered scenic. The City's western hillsides are located less than 0.25-mile to the west of the project site and are visible from the project site and surrounding roadways. Views of the western hillsides would remain visible from Monterey Road and Madrone Parkway upon buildout of the proposed project. In addition, while distant views of the hills to the east of the City are visible across the project site from motorists, bicyclists, and pedestrians travelling along Monterey Road, existing views are partially obscured by utility overhead lines and the existing single-story building and warehouse within the project site. Therefore, the proposed project would not substantially degrade views of the surrounding hillsides located on either side of the project site.

The project site is currently developed with a vehicle scrap yard and U-Haul rental yard, with several scattered trees located along the project site boundaries. An existing warehouse structure and single-story building are located within the southwestern area of the project site. Implementation of the proposed project would include the demolition of the existing structures, removal of 39 trees, and grading of the project site. Upon development of the proposed project, the visual setting of the project site would be changed from an industrial style parking lot to a residential community comprised of 14 two- to three-story buildings, a club terrace, 428 parking spaces, landscaping, and open space.

The site is located in an urbanized area of the City of Morgan Hill. Therefore, in accordance with CEQA Checklist question 1.c., the relevant threshold is whether the project would conflict with applicable zoning and other regulations governing scenic quality, rather than whether the project would substantially degrade the existing visual character or quality of public views of the site and its surroundings.

With respect to zoning and other regulations, the proposed apartments meet the base standards of the underlying zoning districts, Residential Attached Low and MU-F, which anticipate development of the site with urban uses. Goal CNF-8 and Goal CNF-11 of the City and Neighborhood Form element of the General Plan anticipate new development to contribute to a "visually attractive urban environment" and to provide "high quality,

aesthetically pleasing, livable, sustainable, well-planned residential neighborhoods." The proposed project would meet these goals through compliance with General Plan policies regarding project aesthetics; for example, the proposed project would provide landscaping throughout the project site and along the project frontages to soften the visual impacts of parking areas and new structures. The landscaping trees proposed along the western boundary adjacent to Monterey Road would consist of autumn blaze maple trees, consistent with the Morgan Hill Master Street Tree Plan; other project perimeter trees would include Chinese hackberry, Saratoga hybrid laurel, and holly leaf cherry trees. Vehicle parking spaces would be located behind the proposed buildings and further screened by landscaping trees along the project perimeters and within the parking areas, thus, reducing the visual impact of parking areas consistent with General Plan Policy CNF-8.12.

The proposed project would undergo Design Review pursuant to MHMC Section 18.108.040, which would ensure that the proposed project exhibits high quality design consistent with the Residential Development Design and Development Standards (adopted December 2019). The standards augment the standards in the MHMC and provide qualitative direction to meet the City's goal for high-quality design of residential projects. Design Review would also ensure that the proposed project is compatible with surrounding residential uses and minimizes negative impacts on neighboring properties. For example, the easternmost buildings of the proposed project would be designed as two-story structures so as to provide a transition between the existing single-family homes to the east of the project site and the proposed three-story buildings of the project. The architectural quality of the proposed project would be consistent with Design Review criteria regarding community character and architectural style and materials, such as the use of trim, eaves, window boxes, and balconies/patios (see Figure 9).

It should be noted that several of the proposed buildings are planned to have a maximum height of 38 feet as part of a density waiver. The proposed heights would be in exceedance of the maximum allowable building height of 35 feet as required by the underlying zoning district. However, given that the site lacks meaningful surplus land area to accommodate ground-level mechanical equipment, the height exceedance is aimed primarily to screen rooftop mechanical equipment from views within the public-right-way and common areas. Thus, the proposed 38-foot building heights would help to reduce negative visual impacts resulting from views of mechanical equipment as compared to the 35-foot City standard.

The above discussion demonstrates that the proposed project would not conflict with applicable zoning and other regulations governing scenic quality. Given that existing development on the project site currently consists of a scrap yard with minimal landscaping, the proposed project may be considered to enhance, rather than degrade, the visual character of the site by providing new landscaping and open space features and residential structures designed in harmony with development in the surrounding area. Thus, the proposed project would result in a ***less-than-significant impact*** in regard to impacting a scenic vista or conflicting with regulations governing scenic quality.

b. According to the California Department of Transportation (Caltrans), officially designated State or County scenic highways do not occur in the project vicinity.[3]

[3] California Department of Transportation. *Scenic Highways.* Available at: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed April 2021.

Figure 9
Full Site Conceptual Architectural Rendering



Because the project site is not located in the vicinity of any State scenic highway, the proposed project would not damage any scenic resources within a State scenic highway. Therefore, ***no impact*** related to damaging scenic resources within a State scenic highway would occur.

d. Existing development on the project site is limited to an existing warehouse structure and single-family building within the southwestern portion of the site. Thus, the site contains existing sources of light and glare (i.e., lights on building exteriors, reflections from building windows, etc.). Nonetheless, development of the proposed project would increase the amount of light emanating from the project site, including, but not limited to, headlights on cars using the on-site street system, exterior light fixtures, and interior light spilling through windows.

New sources of lighting would be required to comply with the standards set forth in Section 18.76.060 (Glare), and Section 15.40.310 (Open parking lots) of the MHMC, which includes such requirements as cut-off lenses to direct light downward and minimum maintained lighting on parking surfaces. Compliance with such would help to ensure that the light and glare created by the proposed project would be consistent with the levels of light and glare currently emitted in the surrounding developed environment. For example, existing residential and commercial development on all sides of the project site currently generate light and glare in the project vicinity. Therefore, the proposed project would not introduce new sources of substantial light or glare to the site which would adversely affect day or nighttime views in the area, and a ***less-than-significant*** impact would occur.

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 site is designated as "Urban and Built-Up Land" according to the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP).[4] Given the designation of the site as Urban and Built-Up Land, development of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use, or otherwise result in the loss of Farmland to non-agricultural use. Therefore, ***no impact*** would occur as a result of the proposed project.

b. The project site is not under a Williamson Act contract and is not zoned for agricultural uses. The site is currently zoned Residential Attached Low and MU-F. Therefore, buildout of the proposed project would not conflict with an agricultural use or a Williamson Act contract, and ***no impact*** would occur.

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.

[4] California Department of Conservation. *California Important Farmland Finder.* Available at: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed April 2021.

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,b. The City of Morgan Hill 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 SFBAAB area is currently designated as a nonattainment area for State and federal ozone, State and federal fine particulate matter 2.5 microns in diameter ($PM_{2.5}$), and State respirable particulate matter 10 microns in diameter (PM_{10}) ambient air quality standards (AAQS). The SFBAAB is designated attainment or unclassified for all other AAQS. It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (USEPA) issued a final rule to determine that the Bay Area has attained the 24-hour $PM_{2.5}$ federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal $PM_{2.5}$ AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation. The USEPA has not yet approved a request for redesignation of the SFBAAB; therefore, the SFBAAB remains in nonattainment for 24-hour $PM_{2.5}$.

In compliance with regulations, due to the nonattainment designations of the area, 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 are 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 was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the USEPA on November 30, 2001 for review and approval. 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, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State PM_{10} standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2017 Clean Air Plan. The control strategy serves as the backbone of the BAAQMD's current PM control program.

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 AAQS within the SFBAAB. Adopted BAAQMD rules and regulations, as well as thresholds of significance, have been developed with the intent to ensure

continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. The BAAQMD's established significance thresholds associated with development projects for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_x), as well as for PM_{10} and $PM_{2.5}$, expressed in pounds per day (lbs/day) and tons per year (tons/yr), are listed in Table 1. By exceeding the BAAQMD's mass emission thresholds for ROG, NO_X, PM_{10}, or $PM_{2.5}$, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts.

Table 1
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} (exhaust)	82	82	15
$PM_{2.5}$ (exhaust)	54	54	10

Source: BAAQMD, CEQA Guidelines, May 2017.

Emissions of particulate matter can be split into two categories: fugitive emissions and exhaust emissions. The BAAQMD thresholds of significance for exhaust PM emissions are presented in Table 1. The BAAQMD does not maintain quantitative thresholds for fugitive emissions of PM_{10} or $PM_{2.5}$; rather, BAAQMD requires all projects within the district's jurisdiction to implement Basic Construction Mitigation Measures (BCMMs) related to dust suppression.

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2020.4.0 – a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, trip generation rates, vehicle mix, trip length, average speed, compliance with the California Building Standards Code (CBSC), etc. Where project-specific information is available, such information should be applied in the model. Accordingly, the proposed project's modeling assumes the following project and/or site-specific information:

- Construction would commence in May of 2022 and occur over an approximately two-year period;
- Approximately 11,000 square feet of building material would be removed during demolition;
- Approximately 2,000 cubic yards of soils/materials would be exported during site preparation;
- Approximately 2,000 cubic yards of soils/materials would be exported during grading;
- The trip generation rates were updated to 3.84 daily trips per dwelling unit, consistent with the project-specific Trip Generation and Operations Analysis;
- Hearths/fireplaces would not be included in the proposed residences;

- Consistent with City Ordinance No. 2306, the proposed units would not include natural gas infrastructure;
- The project would comply with the Model Water Efficient Landscape Ordinance (MWELO) and the 2019 CALGreen Code; and
- The project would comply with all applicable provisions of the 2019 CBSC, including meeting 100 percent of electricity demand through on-site renewable energy generation.

The proposed project's estimated emissions associated with construction and operation are provided below. All CalEEMod results are included as Appendix A to this Initial Study.

Construction Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 2.

Table 2
Maximum Unmitigated Construction Emissions (lbs/day)

Pollutant	Proposed Project Emissions	Threshold of Significance	Exceeds Threshold?
ROG	9.91	54	**NO**
NO_X	37.50	54	**NO**
PM_{10}*	1.65	82	**NO**
$PM_{2.5}$*	1.52	54	**NO**

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

Source: CalEEMod, June 2021 (see Appendix A).

As shown in the table, the construction of the proposed project would generate criteria pollutant emissions below all applicable thresholds of significance.

All projects within the jurisdiction of the BAAQMD are required to implement all of the BAAQMD's BCMMs, which would be required by the City as conditions of approval:

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 miles per hour (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. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure CCR Title 13, Section 2485). Clear signage shall be provided for construction workers at all access points.

7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and 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 phone number shall also be visible to ensure compliance with applicable regulations.

The proposed project's required implementation of the BAAQMD's BCMMs listed above for the project's construction activities would help to minimize construction-related emissions.

Overall, because construction of the proposed project would not exceed any applicable thresholds of significance, project construction would result in a less-than-significant impact.

Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated operational criteria air pollutant emissions as shown in Table 3.

Table 3
Unmitigated Maximum Operational Emissions

Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold?
	lbs/day	tons/yr	lbs/day	tons/yr	
ROG	8.40	1.44	54	10	**NO**
NO_X	3.43	0.58	54	10	**NO**
PM_{10}*	0.15	0.02	82	15	**NO**
$PM_{2.5}$*	0.15	0.02	54	10	**NO**

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

Source: CalEEMod, June 2021 (see Appendix A).

As shown in the table, the proposed project's operational emissions would be below the applicable thresholds of significance. Because the proposed project's operational emissions would be below the applicable thresholds of significance, the proposed project would not be considered to conflict with air quality plans during project operation.

Cumulative Emissions

Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented in Table 1 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively

considerable contribution to the SFBAAB's existing air quality conditions. If a project exceeds the significance thresholds presented in Table 1, the proposed project's emissions would be cumulatively considerable, resulting in a significant adverse cumulative air quality impact to the region's existing air quality conditions. Because the proposed project would not generate criteria pollutant emissions above the applicable thresholds of significance, the project would not 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.

Conclusion

As stated previously, the applicable regional air quality plans include the 2001 Ozone Attainment Plan and the 2017 Clean Air Plan. Because construction and operation of the proposed project would not result in emissions of criteria air pollutants in excess of BAAQMD's thresholds of significance, conflicts with or obstruction of the implementation of the applicable regional air quality plans would not occur. As a result, the project would not result in a cumulatively considerable net increase of a criteria pollutant for which the project region is nonattainment under an applicable federal or State AAQS. Thus, a ***less-than-significant*** impact would occur.

c. 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, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest existing sensitive receptors would be the single-family residences along Ginger Way and Taylor Avenue, with the closest located approximately 25 feet north of the project site's northern boundary.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions, TAC emissions, and criteria pollutants, 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. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. Emissions of CO are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood.

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 proposed project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project:

- 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.).

Considering the project would be consistent with the General Plan land use designations for the site, the project would not conflict with the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program (CMP).[5] Traffic volumes along Monterey Road were evaluated in a 2019 Traffic Impact Analysis prepared for a separate development project in Morgan Hill. The 2019 Traffic Impact Analysis prepared by Hexagon Transportation Consultants, Inc. shows that all of the intersections in the project area experience traffic levels far below 44,000 vehicles during AM and PM peak hour periods[6] and, as a result, traffic associated with the proposed development would not increase traffic volumes at an affected intersection to more than 44,000 vehicles per hour. Furthermore, intersections where vertical and/or horizontal mixing is limited due to tunnels, underpasses, or similar features do not exist in the project area. Therefore, based on the BAAQMD's screening criteria for localized CO emissions, 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 or cause health hazards.

TAC Emissions

Another category of environmental concern is TACs. 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, gas dispensing facilities, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk. As noted above, the nearest sensitive receptors to the project site are the single-family homes to the northwest of the project site.

The proposed project does not include any operations that would be considered a substantial source of TACs. Accordingly, operations of the proposed project would not expose sensitive receptors to excess concentrations of TACs.

Short-term, construction-related activities would result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions.

---

5 Santa Clara Valley Transportation Authority. *2015 Congestion Management Plan.* October 2015.

6 Hexagon Transportation Consultants, Inc. *Monterey Gateway Traffic Impact Analysis (TIA).* November 27, 2019.

Construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Health risks are typically associated with exposure to high concentrations of TACs over extended periods of time (e.g., 30 years or greater), whereas the construction period associated with the proposed project is estimated to be approximately two years.

All construction equipment and operation thereof would be regulated in accordance with the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with Chapter 18.76 of the MHMC, which states that sources of air pollution shall comply with all rules established by the USEPA, CARB, and BAAQMD. Operators of activities, processes, or uses that require approval to operate from the BAAQMD shall file a copy of the permit with the City's Development Services Division within 30 days of permit approval. In addition, only portions of the site would be disturbed at a time throughout the construction period, with operation of construction equipment occurring intermittently throughout the course of a day rather than continuously at any one location on the project site. Operation of construction equipment within portions of the development area would allow for the dispersal of emissions, and would ensure that construction-activity is not continuously occurring in the portions of the project site closest to existing receptors. In addition, the prevailing wind direction in Morgan Hill is from the west.[7] Therefore, emissions of DPM from the use of construction equipment would be blown towards the eastward direction and away from the nearest sensitive receptors.

Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, the potential for any one sensitive receptor in the area to be exposed to concentrations of pollutants for a substantially extended period of time would be low.

Criteria Pollutants

The BAAQMD thresholds of significance were established with consideration given to the health-based air quality standards established by the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS), and are designed to aid the district in achieving attainment of the NAAQS and CAAQS.[8] Although the BAAQMD's thresholds of significance are intended to aid achievement of the NAAQS and CAAQS for which the SFBAAB is in nonattainment, the thresholds of significance do not represent a level above which individual project-level emissions would directly result in public health impacts. Nevertheless, a project's compliance with BAAQMD's thresholds of significance provides an indication that criteria pollutants released as a result of project implementation would not inhibit attainment of the health-based regional NAAQS and CAAQS. Because project-related emissions would not exceed the BAAQMD's thresholds, and, thus, would not inhibit attainment of regional NAAQS and CAAQS, the criteria pollutants emitted during project implementation would not be anticipated to result in measurable health impacts to sensitive receptors. Accordingly, the proposed project would not expose sensitive receptors to excess concentrations of criteria pollutants.

---

7 Weather Spark. *Average Weather in Morgan Hill*. Available at: https://weatherspark.com/y/1089/Average-Weather-in-Morgan-Hill-California-United-States-Year-Round#:~:text=The%20predominant%20average%20hourly%20wind,of%2095%25%20on%20August%201. Accessed March 2021.

8 Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2017.

Conclusion

Based on the above discussion, the proposed project would not expose any sensitive receptors to excess concentrations of localized CO, TACs, or criteria pollutants during operations of the project. Consequently, the proposed project would result in a ***less-than-significant*** impact related to the exposure of sensitive receptors to substantial pollutant concentrations.

d. Emissions of concern include those leading to odors, emission of dust, or emissions considered to constitute air pollutants. Air pollutants have been discussed in questions 'a' through 'c' above. Therefore, the following discussion focuses on emissions of odors and dust.

According to the BAAQMD CEQA Guidelines, odors are generally regarded as an annoyance rather than a health hazard.[9] 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. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative analysis to determine the presence of a significant odor impact is difficult. 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 and is not located in the vicinity of any such existing or planned 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 hours of operation for construction equipment would be prohibited between 8:00 PM and 7:00 AM, Monday through Friday, and between 6:00 PM and 9:00 AM on Saturdays as required by Chapter 8.28 of the MHMC. 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.

With respect to dust, as noted previously, the proposed project would be required to implement BAAQMD's BCMMs during project construction. The BCMMs would act to reduce construction-related dust by requiring that haul trucks with loose material are covered, reducing vehicle dirt track-out, and limiting vehicle speeds within the project site, among other methods, which would ensure that construction of the proposed project does not result in substantial emissions of dust. Following project construction, vehicles operating within the project site would be limited to paved areas of the site, and non-paved areas would be landscaped. Thus, project operations would not include sources of dust that could adversely affect a substantial number of people.

[9] Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2017.

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.

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. The proposed project site is located within the boundaries of the Santa Clara Valley Habitat Plan (SCVHP). Currently, the project site consists of a vehicle scrap yard and U-Haul rental yard, with a large warehouse structure and a single-family building occupying the southwestern portion of the site. Approximately 118 trees are planted along the southern, western, and northern boundaries of the project site. The observed site conditions are consistent with the SCVHP, which designates the site as an Urban-Suburban developed land cover type. The Urban-Suburban land cover type is described in the SCVHP as characterizing developed areas "where the native vegetation has been cleared for residential, commercial, industrial, transportation, or recreational structures, and is defined as one or more structures per 2.5 acres." Typically, species covered by the SCVHP are unlikely to occur within Urban-Suburban areas.

According to the SCVHP Geobrowser program, the project site is not located within a designated Wildlife Survey Area. Although approximately 0.09-acre in the southwestern corner of the site is located within a designated Plant Survey area, this portion of the site consists of paved sidewalk, a parking area, and actively maintained landscaping features; thus, special-status plants and plants covered by the SCVHP are not anticipated to occur within this area of the project site. In addition, the SCVHP Geobrowser program indicates that the project site is located outside of the SCVHP Burrowing Owl Fee Area, and is not identified in the SCVHP as Occupied Nesting Burrowing Owl Habitat, Potential Burrowing Owl Nesting/Overwintering Habitat Depending on Site Conditions, or Overwintering Only Habitat. Due to the heavily

disturbed nature of the project site and existing development in the project vicinity, the project site does not provide habitat for endangered, rare, or threatened species.

The existing on-site trees and immediately adjacent off-site trees represent potential nesting habitat for nesting and migratory birds protected by the Migratory Bird Treaty Act (MBTA). The MBTA prohibits killing, possessing, or trading of migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. The MBTA covers take of whole birds, parts of birds, and bird nests and eggs. Because project construction activities, including initial site grading, soil excavation, and/or tree and vegetation removal occurring during the nesting period for migratory birds (typically between February 1 to August 31) could have the potential to result in nest abandonment or death of any live eggs or young, the proposed project could result in a ***potentially significant*** impact should migratory birds or their nests be present within or near the project site.

Mitigation Measure(s)

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

IV-1 *If construction is proposed during the breeding season (February 1 to August 31), a pre-construction nesting survey for raptors and other protected migratory birds shall be conducted by a qualified biologist and submitted to the City of Morgan Hill Development Services Division for review no more than 14 days prior to the start of construction. Pre-construction surveys during the non-breeding season (September 1 to January 31) are not necessary for birds, including roosting raptors, as they are expected to abandon their roosts during construction. If these species are deemed absent from the area, no further mitigation is required and construction may occur within 14 days following the survey during the early nesting season (February to May) and within 30 days following the survey during the late nesting season (June to August).*

If nesting migratory birds or raptors are detected on or adjacent to the site during the survey, a suitable construction-free buffer shall be established around all active nests. The precise dimension of the buffer (250-foot minimum for certain raptors) shall be determined by the qualified biologist at that time and may vary depending on location, topography, type of construction activity, and species. The buffer areas shall be enclosed with temporary fencing, and construction equipment and workers shall not enter the enclosed setback areas. Buffers shall remain in place for the duration of the breeding season or until it has been confirmed by a qualified biologist that all chicks have fledged and are independent of their parents.

b,c. Wetlands, trenches, potential waters of the U.S, or other aquatic features are not present within the project site. As previously noted, the site has been highly disturbed by use of the site as a vehicle scrap and storage yard. Therefore, the project would not 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 (CDFW) or the U.S. Fish and Wildlife Service (USFWS) or have a substantial adverse effect on State or federally protected wetlands through direct

removal, filling, hydrological interruption, or other means. Thus, a ***less-than-significant*** impact would occur.

d. Movement corridors or landscape linkages are usually linear habitats that connect two or more habitat patches, providing assumed benefits to the species by reducing inbreeding depression and increasing the potential for recolonization of habitat patches. The project site is bounded to the west by Monterey Road, to the south by Madrone Parkway, and to the north and east by existing residential and commercial development. Although a vacant lot designated for future residential development is located to the north of the site, the vacant lot is surrounded by development and, like the project site, is not crossed by any waterways or greenways, and does not abut a preserve. Due to the developed nature of the surrounding area, as well as physical barriers to wildlife movement along the project boundaries, the project site does not support any major wildlife movement corridors. As such, the project would not 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. Thus, a ***less-than-significant*** impact would occur.

e. Section 12.32.030 (Permit-Required) of the MHMC requires the approval of a tree removal permit prior to the removal of any Ordinance Sized Trees, defined as a non-indigenous tree with a circumference greater than 40 inches (approximately 12.7-inch diameter) or any indigenous tree with circumference greater than 18 inches (approximately 5.7 inches diameter). Indigenous tree means any tree native to the Morgan Hill region, such as oaks (all types), Sycamore, California Bay, Madrone, or Alder. According to the MHMC, non-indigenous tree species in residential zones and orchards (including individual fruit trees) are not considered Ordinance Sized Trees. Non-indigenous trees proposed for removal within the residential zoned property are exempt from the City's tree replacement requirements.

A Tree Summary Report (Tree Report) was prepared for the proposed project by Moki Smith Tree Specialists, Inc. (see Appendix B).[10] According to the Tree Report, a total of 118 ordinance-sized trees are located on or adjacent to the project site, as follows: 23 trees inside the property boundaries, 16 trees along the property line, and 79 trees immediately off-site. A total of 28 indigenous Live Oak trees were identified within the survey area. While none of the off-site trees would require removal to accommodate the project, a total of 39 on-site trees would need to be removed, 15 of which are on the property line. Fourteen of the 39 trees proposed for removal are Live Oak trees having trunks greater than 5.7 inches in diameter; thus, these trees are considered indigenous and would require replacement pursuant to Section 12.32.080. Table 4 provides a summary of the indigenous trees identified within the survey area, their location, height and diameter, and whether the tree is proposed for removal or preservation.

As shown in Figure 5 of this IS/MND, the Preliminary Tree Plan, approximately 213, 24- to 36-inch box trees would be planted along the project site perimeters, surrounding the residential buildings, and along the drive aisles and parking medians. Nevertheless, the Tree Plan does not include in-kind replacement for the 14 indigenous Live Oak trees that would be removed to accommodate the proposed project. Without implementation of a tree replacement/preservation plan for the indigenous ordinance-sized trees to be preserved on or adjacent to the site, the proposed project could have a ***potentially***

[10] Moki Smith Tree Specialists, Inc. *Tree Summary Report.* June 9, 2021.

significant impact related to conflicting with local policies or ordinances protecting biological resources, particularly related to Chapter 12.32 (Restrictions on Removal of Significant Trees) of the MHMC.

Table 4
Indigenous Tree Inventory Table[1]

Tree Tag	Ordinance Size?	DBH	Height	Preserve	Remove	On Property Line	Inside Property	Off-Site
11109	Y	18”	20’		X		X	
11110	Y	22”	30’		X		X	
11111	Y	19”	35’		X		X	
11112	Y	31”	45’	X				X
11113	Y	12”	30’		X	X	X	
11114	Y	26”	50’		X		X	
11115	Y	10”	25’		X		X	
11116	Y	12”	-		X		X	
11117	Y	10”	30’		X		X	
11118	Y	8”	18’		X		X	
11119	Y	20”	25’		X	X	X	
11120	Y	23”	25’		X		X	
11121	Y	6”	16’		X	X	X	
12202	Y	17”	35’		X		X	
12203	Y	12”	35’		X		X	
12225	N	-	-	X				X
12228	N	-	-	X				X
12229	N	-	-	X				X
12280	Y	7”	25’	X				X
12281	Y	6”	20’	X				X
12285	N	-	-	X				X
12286	N	-	-	X				X
12288	Y	7”	20’	X				X
12289	N	-	-	X				X
12290	N	-	-	X				X
12291	N	-	-	X				X
12293	N	-	-	X				X
12300	N	-	-	X				X
			Total:	**14**	**14**	**3**	**14**	**14**

[1] All indigenous trees within or adjacent to the project site are of the Live Oak species.

Source: Moki Smith Tree Specialists, 2021.

Mitigation Measure(s)

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

IV-2. *The project applicant shall mitigate for the removal of the Ordinance Sized Trees located within the project site, as identified in the tree survey prepared for the proposed project, by providing an on-site replacement planting at a minimum 1:1 ratio with 15-gallon minimum size trees.*

For the Ordinance Sized Trees to be preserved as part of the project, the project applicant shall retain a certified arborist to prepare a tree protection plan, subject to review and approval by the Development Services Division prior to issuance of a grading permit. The plan shall demonstrate how any retained trees are to be protected during and after construction. The tree protection plan may include, but not be limited to, the following:

- *Locate structures, grade changes, etc. as far as feasible from the 'dripline' area of the tree.*
- *Avoid root damage through grading, trenching, compaction, etc., at least within an area 1.5 times the 'dripline' area of trees. Where root damage cannot be avoided, roots encountered (over one inch in diameter) should be exposed approximately 12 inches beyond the area to be disturbed (towards tree stem), by hand excavation, or with specialized hydraulic or pneumatic equipment, cut cleanly with hand pruners or power saw, and immediately back-filled with soil. Tearing, or otherwise disturbing the portion of the root(s) to remain, shall be avoided.*
- *A temporary fence shall be constructed as far from the tree stem (trunk) as possible, completely surrounding the tree, and six to eight feet in height. 'No parking or storage' signs shall be posted outside/on the fencing. Postings shall not be attached to the main stem of the tree.*
- *Vehicles, equipment, pedestrian traffic, building materials, debris storage, and/or disposal of toxic or other materials shall not be permitted inside of the fenced off area.*
- *The project applicant shall avoid pruning immediately before, during, or immediately after construction impact. Perform only that pruning which is unavoidable due to conflicts with proposed development. Aesthetic pruning should not be performed for at least one to two years following completion of construction.*
- *Trees that will be impacted by construction may benefit from fertilization, ideally performed in the fall, and preferably prior to any construction activities, with not more than six pounds of actual nitrogen per 1,000 square feet of accessible 'drip line' area or beyond.*
- *The 'rooting' area shall be mulched with an acidic, organic compost or mulch.*
- *The project applicant shall arrange for periodic (Biannual/Quarterly) inspection of tree's condition, and treatment of damaging conditions (insects, diseases, nutrient deficiencies, etc.) as such conditions occur, or as appropriate.*
- *Subject to the discretion of the Development Services Division, individual trees likely to suffer significant impacts may require specific, more extensive efforts and/or a more detailed specification than those contained within the above general guidelines.*

f. The SCVHP was developed through a partnership between Santa Clara County, the cities of San José, Morgan Hill, and Gilroy, the Santa Clara Valley Water District (SCVWD), the

Santa Clara VTA, the USFWS, and the CDFW. The SCVHP is intended to promote the recovery of endangered species and enhance ecological diversity and function, while accommodating planned growth in approximately 500,000 acres of southern Santa Clara County. The SCVHP provides take authorization for 18 listed and non-listed species (i.e., covered species). In addition, the SCVHP includes conservation measures to protect the covered species covered by the SCVHP, as well as a conservation strategy designed to mitigate impacts on covered species and contribute to the recovery of the species in the study area.

As noted previously, the SCVHP designates the project site as an Urban-Suburban developed land cover type. Typically, species covered by the SCVHP are unlikely to occur within Urban-Suburban areas. Per the Santa Clara Valley Habitat Agency Geobrowser program, the project site is not located within a designated Wildlife Survey Area for any covered species.[11] Although approximately 0.09-acre in the southwestern corner of the site is located within a designated Plant Survey area, this portion of the site consists of paved sidewalk, a parking area, and actively maintained landscaping features; thus, plants covered by the SCVHP are not anticipated to occur within this area of the project site. In addition, the project site is not located within a designated fee zone area and would not result in impacts on any natural land cover types. However, because the proposed project would create new vehicle trips, the proposed project would be subject to payment of the Nitrogen Deposition Fee of $50.09 per new residential unit. With payment of the applicable SCVHP fees, the proposed project would not conflict with the SCVHP, and ***no impact*** would occur.

[11] Santa Clara Valley Habitat Agency. *Geobrowser.* Available at: http://www.hcpmaps.com/habitat/. Accessed March 2020.

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-c. The proposed project would include demolition of an existing warehouse building associated with operation of the vehicle scrap yard, and a single-story structure which is currently used for operations of the U-Haul storage yard. The structures have existed on the site for at least 80 years, as depicted in aerial photographs included as part of a Phase I Environmental Site Assessment (ESA). The Office of Historic Preservation (OHP) has determined that structures in excess of 45 years of age could be important historical resources, and former building and structure locations could be important archaeological sites; however, the on-site structures do not appear to be associated with any important events or people who would have contributed to local, California, or United States history. Therefore, the structures do not appear to be eligible for Criterion 1 or Criterion 2 of the California Register. The structures are of simple design and do not embody distinctive characteristics of a type, period, or method of construction; therefore, the structures do not appear eligible for Criterion 3 of the California Register. Criterion 4 is typically utilized for determining the importance of archaeological sites; therefore, the warehouse structure and the single-story building would be ineligible for such a classification under Criterion 4.

As noted in the General Plan EIR, archaeological surveys conducted in Morgan Hill have identified numerous prehistoric sites with shell midden components, including human burials. Based on such findings, the potential exists for subsurface historical resources and previously unknown archaeological resources to be found on-site during grading and excavation associated with development of the proposed project. In the event that such resources are unearthed, the following City standard Conditions of Approval related to the protection of historical and archaeological resources would be implemented, consistent with Section 18.60.090 of the MHMC:

1. An archaeologist shall be present on-site to monitor all ground-disturbing activities. Where historical or archaeological artifacts are found, work in areas where remains or artifacts are found will be restricted or stopped until proper protocols are met, as described below:

    a. Work at the location of the find shall halt immediately within thirty feet of the find. If an archaeologist is not present at the time of the discovery, the applicant shall contact an archaeologist for evaluation of the find to determine whether it qualifies as a unique archaeological resource as defined by this chapter;
    b. If the find is determined not to be a Unique Archaeological Resource, construction can continue. The archaeologist shall

prepare a brief informal memo/letter that describes and assesses the significance of the resource, including a discussion of the methods used to determine significance for the find;

c. If the find appears significant and to qualify as a unique archaeological resource, the archaeologist shall determine if the resource can be avoided and shall detail avoidance procedures in a formal memo/letter; and
d. If the resource cannot be avoided, the archaeologist shall develop within forty-eight hours an action plan to avoid or minimize impacts. The field crew shall not proceed until the action plan is approved by the Development Services Director. The action plan shall be in conformance with California Public Resources Code 21083.2.

2. The following policies and procedures for treatment and disposition of inadvertently discovered human remains or archaeological materials shall apply. If human remains are discovered, it is probable they are the remains of Native Americans,

    a. If human remains are encountered, they shall be treated with dignity and respect as due to them. Discovery of Native American remains is a very sensitive issue and serious concern. Information about such a discovery shall be held in confidence by all project personnel on a need-to-know basis. The rights of Native Americans to practice ceremonial observances on sites, in labs, and around artifacts shall be upheld.
    b. Remains should not be held by human hands. Surgical gloves should be worn if remains need to be handled.
    c. Surgical masks should also be worn to prevent exposure to pathogens that may be associated with the remains.

3. In the event that known or suspected Native American remains are encountered, or significant historic or archaeological materials are discovered, ground-disturbing activities shall be immediately stopped. Examples of significant historic or archaeological materials include, but are not limited to, concentrations of historic artifacts (e.g., bottles, ceramics) or prehistoric artifacts (chipped chert or obsidian, arrow points, groundstone mortars and pestles), culturally altered ash-stained midden soils associated with pre-contact Native American habitation sites, concentrations of fire-altered rock and/or burned or charred organic materials and historic structure remains such as stone-lined building foundations, wells or privy pits. Ground-disturbing project activities may continue in other areas that are outside the exclusion zone as defined below.

4. An "exclusion zone" where unauthorized equipment and personnel are not permitted shall be established (e.g., taped off) around the discovery area plus a reasonable buffer zone by the contractor foreman or authorized representative, or party who made the discovery and initiated these protocols, or if on-site at the time or discovery, by the

monitoring archaeologist (typically twenty-five to fifty feet for single burial or archaeological find).

5. The exclusion zone shall be secured (e.g., twenty-four-hour surveillance) as directed by the city or county if considered prudent to avoid further disturbances.

6. The contractor foreman or authorized representative, or party who made the discovery and initiated these protocols shall be responsible for immediately contacting by telephone the parties listed below to report the find and initiate the consultation process for treatment and disposition:

    a. The City of Morgan Hill Development Services Director,
    b. The contractor's point(s) of contact,
    c. The coroner of the county of Santa Clara (if human remains found), and
    d. The Native American Heritage Commission (NAHC) in Sacramento.

7. The coroner has two working days to examine the remains after being notified of the discovery. If the remains are Native American, the Coroner has twenty-four hours to notify the NAHC.

8. The NAHC is responsible for identifying and immediately notifying the Most Likely Descendant (MLD). (Note: NAHC policy holds that the Native American Monitor will not be designated the MLD.).

9. Within twenty-hour hours of their notification by the NAHC, the MLD will be granted permission to inspect the discovery site if they so choose,

10. Within twenty-four hours of their notification by the NAHC, the MLD may recommend to the City's Development Services Director the recommended means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The recommendation may include the scientific removal and non-destructive or destructive analysis of human remains and items associated with Native American burials. Only those osteological analyses or DNA analyses recommended by the appropriate tribe may be considered and carried out.

11. If the MLD recommendation is rejected by the City of Morgan Hill, the parties will attempt to mediate the disagreement with the NAHC. If mediation fails, then the remains and all associated grave offerings shall be reburied with appropriate dignity on the property in a location not subject to further subsurface disturbance.

Compliance with the above standard Conditions of Approval would ensure that construction of the proposed project would have a ***less-than-significant*** impact related to historical resources and unique archeological resources, as well as the disturbance of human remains.

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 and oil. A description of the California Green Building Standards Code and the Building Energy Efficiency Standards, with which the proposed project would be required to comply, as well as discussions regarding the proposed project's potential effects related to energy demand during construction and operations are provided below.

California Green Building Standards Code

The California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11), is a portion of the CBSC. The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the CALGreen Code include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of Electric Vehicle charging infrastructure in residential and non-residential structures;
- Indoor water use consumption is reduced through the establishment of maximum fixture water use rates;
- Outdoor landscaping must comply with the California Department of Water Resources' MWELO, or a local ordinance, whichever is more stringent, to reduce outdoor water use;
- Diversion of 65 percent of construction and demolition waste from landfills;
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board; and
- For some single-family and low-rise residential development developed after January 1, 2020, mandatory on-site solar energy systems capable of producing 100 percent of the electricity demand created by the residence(s).

Building Energy Efficiency Standards

The 2019 Building Energy Efficiency Standards is a portion of the CBSC, which expands upon energy-efficiency measures from the 2016 Building Energy Efficiency Standards. Non-residential buildings built in compliance with the 2019 standards are anticipated to use approximately 30 percent less energy compared to the 2016 standards, primarily due to lighting upgrades.[12] For residential buildings, compliance with the 2019 standards will

[12] California Energy Commission. *Title 24 2019 Building Energy Efficiency Standards FAQ*. November 2018.

use approximately seven percent less energy due to energy efficiency measures compared to homes built under the 2016 standards. Once rooftop solar electricity generation is factored in, homes built under the 2019 standards will use approximately 53 percent less energy than those under the 2016 standards.

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. Project construction would not involve the use of natural gas appliances or equipment.

All construction equipment and operation thereof would be regulated by 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 limits 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. The In-Use Off-Road Diesel Vehicle Regulation would subsequently help to improve fuel efficiency and reduce GHG emissions. Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to reduce demand on oil and emissions associated with construction.

The CARB has prepared the *2017 Climate Change Scoping Plan Update* (2017 Scoping Plan),[13] which builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. Appendix B of the 2017 Scoping Plan includes examples of local actions (municipal code changes, zoning changes, policy directions, and mitigation measures) that would support the State's climate goals. The examples provided include, but are not limited to, enforcing idling time restrictions for construction vehicles, utilizing existing grid power for electric energy rather than operating temporary gasoline/diesel-powered generators, and increasing use of electric and renewable fuel-powered construction equipment. The In-Use Off-Road Diesel Vehicle Regulation described above, with which the proposed project must comply, would be consistent with the intention of the 2017 Scoping Plan and the recommended actions included in Appendix B of the 2017 Scoping Plan.

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.

[13] California Air Resources Board. *The 2017 Climate Change Scoping Plan Update*. January 20, 2017.

Operational Energy Use

In response to the growing climate crisis, the City has determined that natural gas use in local buildings, which accounts for approximately one-third of the community's carbon footprint, represents the City's greatest opportunity to reduce future greenhouse gas emissions. Requiring all new buildings to be constructed without natural gas will dramatically reduce future emissions growth as electricity procured by Silicon Valley Clean Energy is 100 percent carbon free. The City Council adopted Ordinance No. 2306 on November 6, 2019, which prohibits natural gas infrastructure in new buildings.

Energy use associated with operation of the proposed project would be typical of residential developments, requiring electricity for interior and exterior building lighting, heating, ventilation, and air conditioning (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. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by the proposed multi-family homes.

The proposed project would be subject to all relevant provisions of the most recent update of the CBSC, including the Building Energy Efficiency Standards. Adherence to the most recent CALGreen Code and the Building Energy Efficiency Standards would ensure that the proposed structures would consume energy efficiently through the incorporation of such features as door and window interlocks, direct digital controls for HVAC systems, and high efficiency outdoor lighting. In addition, California has set energy-use reduction goals targeting zero-net-energy use in all new homes. The CALGreen Code requires that new buildings use a combination of energy efficiency and distributed renewable energy generation to meet all annual energy needs. As such, the proposed residences would be constructed to incorporate renewable energy systems sufficient to meet 100 percent of the proposed residences' electricity demand. Required compliance with the CBSC would ensure that the building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary.

With regard to transportation energy use, the proposed project would comply with all applicable regulations associated with vehicle efficiency and fuel economy, including the provision of 43 EV-ready vehicle parking spaces, nine of which would be required to have EV-charging stations pursuant to MHMC Section 18.72.040. In addition, as discussed in Section XVII, Transportation, of this Initial Study, the project site is located within close proximity to existing residential neighborhoods, bicycle infrastructure, and transit infrastructure. Specifically, transit bus stops are located along Cochrane Road and Hale Avenue, which would provide access to commercial uses along Cochrane Road, Monterey Road, and Downtown Morgan Hill, approximately 1.5 miles south of the project site. The availability of such transit, bicycle, and pedestrian infrastructure in the site vicinity would help to reduce vehicle miles travelled (VMT) associated with the project and reduce fuel consumption.

Conclusion

Based on the context above, construction and operation of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Thus, a ***less-than-significant*** impact would occur.

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 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 discussion is based primarily on a Geotechnical Engineering Study prepared for the proposed project by Geo-Engineering Solutions (see Appendix C).[14] The field exploration program consisted of drilling four test borings to a maximum depth of 44 feet throughout the project site. In addition, the Geotechnical Engineering Study incorporated findings from previous field explorations at the project site, including 14 soil borings performed at the site by GeoSolve in May and June of 2020. From the ground surface to the maximum depth explored, the soils underlying the project site consist primarily of gravelly sands and sandy gravels with occasionally thin layers of sandy clay and gravelly clay.

ai-iv. Active faults do not cross the site, and the site is not mapped within an Alquist-Priolo Earthquake Fault Zone. Therefore, the proposed project would not be subject to risks related to fault rupture. Furthermore, the site is not located within the vicinity of any steep slopes that would be subject to landslide risk, nor within an area requiring special investigation for landslides or liquefaction hazards. According to the Association of Bay Area Governments (ABAG) Resilience Program's interactive Hazards Map, the project site is located in an area of relatively low to moderate liquefaction susceptibility, and the Geotechnical Engineering Study notes that the project site is not in any liquefaction or active faulting hazard zone according to the State of California Earthquake Zones of Required Investigation Map (see Section 'c' for further discussion of liquefaction risks at

[14] Geo-Engineering Solutions, Inc. *Geotechnical Engineering Study, Residential Development, 18960 Monterey Road, Morgan Hill, CA 95037.* August 25, 2020.

the project site).

Pursuant to the Geotechnical Engineering Study, major faults near the project site include the San Andreas Fault located seven miles southwest of the site; the Calaveras Fault located four miles northeast of the site; and the San Gregorio Fault located 26 miles southwest of the site. Additional notable faults near the site include the Monte Vista Fault (four miles to the northwest) and the Silver Creek Fault (nine miles to the northeast). Due to the proximity of the site area to nearby active faults, strong ground shaking could occur at the site as a result of an earthquake on any one of the faults. However, the proposed project would be subject to all applicable regulations within the CBSC and Chapter 15.08 (Building Code) of the MHMC, which provide standards to protect property and public safety by regulating the design and construction of foundations, building frames, and other building elements. Therefore, a ***less-than-significant*** impact would 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.

b. Development of the project site would cause ground disturbance related to construction activity. The ground disturbance would be limited to the areas proposed for grading and excavation, including building pads; curb, gutter, and sidewalk improvement areas; road widening; and drainage, sewer, and water infrastructure alignments. After grading and excavation and prior to overlaying the disturbed ground surfaces with impervious surfaces and structures, the potential exists for wind and water erosion to occur, which could adversely affect downstream storm drainage facilities.

New development within the City that disturbs one or more acres of land is required to comply with the National Pollutant Discharge Elimination System (NPDES) General Construction Permit and to prepare a Storm Water Pollution Prevention Plan (SWPPP) incorporating best management practices (BMPs) to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. The proposed project would disturb approximately 7.5 acres and, thus, would be subject to such requirements. In addition, pursuant to Chapter 13.30 (Urban Storm Water Quality Management and Discharge Control) of the MHMC, the project applicant would be required to submit a sediment and erosion control plan to the City of Morgan Hill, Engineering Land Development Department, prior to the approval of improvement plans and issuance of building permits. The plan(s) shall be acceptable and conform to City standards to prevent significant sediment and soil erosion during construction and include the standards and guidelines found in the California Stormwater Quality Association, Stormwater Best Management Practice Handbook. Pursuant to MHMC Section 13.30.270, erosion control plans shall provide details for BMPs such as, but not limited to, preservation of existing vegetation, hydraulic mulch, hydroseeding, soil binders, and straw mulch.

Based on the above, the proposed project would not result in substantial soil erosion or the loss of topsoil. Thus, a ***less-than-significant*** impact would occur.

c. The proposed project's potential effects related to liquefaction, landslides, lateral spreading, subsidence/settlement, and other unstable soil conditions are discussed in detail below.

Liquefaction

Research and historical data indicate that soil liquefaction generally occurs in saturated, loose granular soil during or after strong seismic ground shaking and is typified by a loss of shear strength in the affected soil layer, thereby causing the soil to flow as a liquid. Typically, liquefaction potential increases with increased duration and magnitude of cyclic loading. However, because of the higher intergranular pressure of the soil at greater depths, the potential for liquefaction is generally limited to the upper 40 feet of the soil. Potential hazards associated with soil liquefaction below or near a structure include loss of foundation support, lateral spreading, sand boils, and areal and differential settlement.

The soils encountered in the subsurface investigation included layers of dense to very dense gravelly sands and sandy gravels. These soils are expected to be generally less susceptible to liquefaction due to their fine-grained content and relatively high density. Additionally, Geo-Engineering Solutions did not encounter any ground water during soil investigations and determined that groundwater at the project site is located deeper than 40 feet below ground surface (bgs). Thus, the proposed project would not be subject to substantial liquefaction risk.

Lateral Spreading

Lateral spreading is lateral ground movement that occurs as a result of liquefaction, whereby the soils ride atop the liquefied layer of soil. Lateral spreading can occur on relatively flat sites with slopes less than two percent under certain circumstances, generally when the liquefied layer is in relatively close proximity to an open, free slope face such as the bank of a creek channel. Lateral spreading can cause surficial ground tension cracking (i.e., lurch cracking) and settlement. As discussed above, subsurface soil conditions render the potential for liquefaction to occur at the project site to be low, and open, free slopes are not located in close proximity to the project site; therefore, there is a low potential for lateral spreading to occur at the project site.

Landslides

Seismically-induced landslides are triggered by earthquake ground shaking. The risk of landslide hazard is greatest in areas with steep, unstable slopes. According to the Geotechnical Engineering Study, the topography of the project site is relatively flat, sloping shallowly toward the east-southeast. Pursuant to the California Earthquake Hazards Zone Application, the project site is not located within a designated seismic hazard zone for landslides.[15] Thus, the proposed project would not be subject to substantial landslide risks.

Subsidence/Settlement

Subsidence is the settlement of soils of very low density generally from either oxidation of organic material, or desiccation and shrinkage, or both, following drainage. Subsidence takes place gradually, usually over a period of several years. Given that the proposed project would comply with the CBSC, the potential for subsidence to pose a risk to the proposed development is relatively low. Dynamic compaction, or settlement, is a phenomenon where loose, relatively clean, near-surface sandy soil located above the water table is densified from vibratory loading, typically from strong seismic shaking or vibratory equipment. The site soils generally consist of dense to very dense gravelly sands and sandy gravels; therefore, Geo-Engineering Solutions concluded that dynamic

[15] Association of Bay Area Governments. *Resilience Program*. Available at: https://abag.ca.gov/our-work/resilience. Accessed October 2019.

settlement would not pose a significant constraint on the proposed project. Furthermore, the General Plan EIR concludes that impacts related to subsidence/settlement would be reduced to a less-than-significant level with compliance with the CBSC, the Morgan Hill General Plan, and the MHMC.

Other Unstable Soil Conditions

Undocumented fill soils and debris were encountered in several borings performed by GeoSolve. Due to the presence of existing buildings at the site, additional undocumented fill soil may be encountered during demolition of the existing buildings and removal of associated foundations and utilities. Because the undocumented soils could not be assessed as part of the Geotechnical Engineering Study, Geo-Engineering Solutions recommends that undocumented fill soils be completely removed and replaced by engineered compact fill. The portion of excavated material not consisting of debris or organic topsoil could be reused as fill material upon approval of the geotechnical engineer.

Conclusion

Based on the above, the proposed project would not be subject to substantial risks related to liquefaction, landslides, or lateral spreading. Compliance with standard construction regulations included in the CBSC would ensure that the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving subsidence or settlement. However, undocumented fill soils within the project site would be required to be completely removed and replaced by engineered compact fill. Otherwise, geotechnical and geological issues related to being located on a geologic unit or soil that is unstable could be ***potentially significant.***

Mitigation Measure(s)

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

VII-1 *All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by 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 Engineering Study prepared for the proposed project by Geo-Engineering Solutions are properly incorporated and utilized in the project design.*

d. Expansive soils are those possessing clay particles that react to moisture changes by shrinking or swelling. Expansive soils can also consist of silty to sandy clay. If structures are underlain by expansive soils, foundation systems must be capable of tolerating or resisting any potentially damaging soil movements, and building foundation areas must be properly drained. Geo-Engineering Solutions observed the near surface soil to predominantly consist of non-plastic granular material, such as clayey sands and/or gravelly sands. Therefore, the near-surface soils would be considered to have a low expansion potential, and potential on-site impacts related to expansive soils and direct or indirect risks to life or property would be ***less-than-significant.***

e. The proposed development would connect to existing City-maintained sewer infrastructure and would not include the use of septic tanks. Accordingly, ***no impact*** would occur related to soils incapable of adequately supporting the use of septic tanks.

f. Paleontological resources or fossils are the remains of prehistoric plant and animal life. As noted in the General Plan EIR, based on a review of the University of California's Museum of Paleontology's (UCMP) fossil locality database conducted for all of Santa Clara County, paleontological resources have not been explicitly identified as being found within Morgan Hill.[16]

As noted in the City's General Plan, occurrences of fossil resources are closely tied to the geologic units. The soil types at the project site are not considered unique geologic features and are common within the geographic area of the City. As such, development of the proposed project would not destroy a unique geologic feature. Furthermore, the project would be subject to the City's standard measures listed in Chapter V, Cultural Resources, of this IS/MND. As noted in the General Plan EIR, such measures would further lessen potential impacts to paleontological resources. Therefore, the proposed project would not result in the direct or indirect destruction of a unique paleontological resource, and a ***less-than-significant*** impact would occur.

[16] City of Morgan Hill. *2035 General Plan, City of Morgan Hill* [pg. 4.5-17]. Adopted July 2016.

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?	☐	☐	✖	☐

Discussion

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 future 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. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e$/yr).

The proposed project is located within the jurisdictional boundaries of BAAQMD. The BAAQMD developed a threshold of significance for project-level GHG emissions in 2009. The BBAQMD's approach to developing the threshold was to identify a threshold level of GHG emissions for which a project would not be expected to substantially conflict with existing California legislation. At the time that the thresholds were developed, the foremost legislation regarding GHG emissions was Assembly Bill (AB) 32, which established an emissions reduction goal of reducing statewide emissions to 1990 levels by 2020.[17] The GHG emissions threshold of significance recommended by BAAQMD to determine compliance with AB 32 is 1,100 $MTCO_2e$/yr. or 4.6 $MTCO_2e$ per service population per year ($MTCO_2e$/SP/yr.). If a project generates GHG emissions above the BAAQMD's adopted threshold level, the project is considered to generate significant GHG emissions and conflict with AB 32.

The foregoing threshold is intended for use in assessing operational GHG emissions only. Construction of a proposed project would result in GHG emissions over a short-period of time in comparison to the operational lifetime of the project. To capture the construction-related GHG emissions due to buildout of the proposed project, this analysis voluntarily

[17] Bay Area Air Quality Management District. *California Environmental Quality Act Guidelines Update: Proposed Thresholds of Significance*. May 2017.

amortizes construction emissions over the anticipated project lifetime and adds them to the operational GHG emissions. Given that construction-related GHG emissions would not occur concurrently with operational emissions and would cease upon completion of construction activities, combining the two emissions sources represents a conservative estimate of total project GHG emissions.

Since the adoption of BAAQMD's GHG thresholds of significance, the State legislature has passed AB 197 and SB 32, which builds off of AB 32 and establishes a statewide GHG reduction target of 40 percent below 1990 levels by 2030. Considering the legislative progress that has occurred regarding statewide reduction goals since the adoption of BAAQMD's standards, the emissions thresholds presented above would determine whether a proposed project would be in compliance with the 2020 emissions reductions goals of AB 32, but would not necessarily demonstrate whether a project would be in compliance with SB 32. In accordance with the changing legislative environment, the BAAQMD has begun the process of updating the District's CEQA Guidelines; however, updated thresholds of significance have not yet been adopted. In the absence of BAAQMD-adopted thresholds to assess a project's compliance with SB 32, this IS/MND considers additional GHG emissions thresholds.

SB 32 requires that by 2030 statewide emissions be reduced by 40 percent beyond the 2020 reduction target set by AB 32. In the absence of adopted thresholds from BAAQMD, the CARB, or the City of Morgan Hill, this analysis 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, a proposed project would be in compliance with SB 32 if the project's emissions did not exceed the following thresholds by the year 2030: 660 $MTCO_2e$/yr or 2.6 $MTCO_2e$/SP/yr. The BAAQMD has informally endorsed this approach to analysis in other recent projects throughout the Bay Area.[18]

In addition to the quantitative thresholds described above, a qualitative analysis assessing the project's compliance with the CARB's *California's 2017 Climate Change Scoping Plan* (2017 Scoping Plan) is also provided. The CARB's 2017 Scoping Plan establishes a strategy to meet California's 2030 GHG targets; accordingly, should the project be shown to comply with the 2017 Scoping Plan, the proposed project would be considered consistent with Statewide reduction targets for the year 2030. Based on recommendations from BAAQMD, a project's compliance with the local actions contained in Appendix B of the 2017 Scoping Plan may be used to assess a project's compliance with the 2017 Scoping Plan and, thus, consistency with SB 32.[19] In addition, the project's consistency with the goals of the Plan Bay Area 2040 is discussed below.

By using the BAAQMD thresholds of significance for GHG, the updated SB 32 thresholds discussed above, and evaluating the project's consistency with applicable plans, the City would comply with Section 15064.4(b)(3) of the CEQA Guidelines, which suggests that lead agencies consider the extent that the project would comply with regulations or

[18] See, for example, the Creekside/Vineyards at Sand Creek Project EIR, prepared for the City of Antioch. Available at: https://www.antiochca.gov/community-development-department/planning-division/environmental-documents/.

[19] Flores, Areana, Bay Area Air Quality Management District. Personal communication [phone], Jacob Byrne, Senior Associate/Air Quality Technician, Raney Planning & Management. September 17, 2019.

requirements adopted to implement a statewide, regional, or local plan for the reduction of GHG emissions.

GHG Emissions

Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Neither the City nor BAAQMD has an adopted threshold of significance for construction-related GHG emissions and does not require quantification. Nonetheless, the proposed project's construction GHG emissions, as well as operational emissions, have been estimated using CalEEMod under the same assumptions discussed in Section III, Air Quality, of this IS/MND (see Appendix A).

The emissions estimates prepared for the proposed project determined that unmitigated construction of the project would result in total GHG emissions of 1,181.64 $MTCO_2e$ over the two-year construction period. In the analyses below, the construction GHG emissions are amortized over the anticipated 30-year lifetime of the proposed project.[20]

As noted throughout this IS/MND, the proposed project would include the installation of nine EV-charging stations on the project site. The provision of on-site EV charging stations would encourage the use of EVs and, thereby, contribute to a reduction in mobile-source GHG emissions. Based on the Emission Factor (EMFAC) 2017 vehicle emission factors and California EV infrastructure projections, the provision of nine EV charging stations would result in a reduction of GHG emissions of approximately 65 $MTCO_2e$/yr.[21] The GHG emissions reduction from the EV charging stations is applied to the analysis below.

Compliance with AB 32

As shown in Table 5, the project's total unmitigated annual GHG emissions in the first year of project operation, 2024, including amortized construction-related emissions, are estimated to be approximately 796.93 $MTCO_2e$/yr, which would be below BAAQMD's adopted threshold of significance for AB 32. Accordingly, neither construction nor operations of the proposed project would be anticipated to conflict with AB 32.

Compliance with SB 32

As shown in Table 6, the project's anticipated unmitigated annual GHG emissions in the year 2030, including amortized construction-related emissions, are estimated to be approximately 659.28 $MTCO_2e$/yr, which would be below the BAAQMD's adjusted threshold of significance to represent compliance with SB 32. Accordingly, the proposed project would not be anticipated to conflict with SB 32.

---

20 South Coast Air Quality Management District. 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 October 2020.

21 National Renewable Energy Laboratory. *California Plug-In Electric Vehicle Infrastructure Projections: 2017-2025 (Table C.1)*. 2018.

Table 5
Unmitigated GHG Emissions (2024)

Source	GHG Emissions ($MTCO_2e$/yr)
Operational GHG Emissions	822.54
Area	*3.09*
Energy	*0.00*
Mobile	*734.94*
Waste	*57.60*
Water	*26.90*
Amortized Construction GHG Emissions[1]	39.39
GHG Emissions Reduction from EV Charging Stations[2]	-65.00
Total Annual GHG Emissions[3]	**796.93**
BAAQMD AB 32 Threshold	**1,100**
Exceeds Threshold?	**NO**

[1] It is noted that amortized construction GHG emissions are added here for informational purposes, in an effort to provide a conservative approach to analysis.
[2] See Appendix A for EV charging station GHG emissions reduction calculations.
[3] Rounding may result in small differences in summation.

Source: CalEEMod, June 2021 (see Appendix A).

Table 6
Unmitigated Operational GHG Emissions (2030)

Source	GHG Emissions ($MTCO_2e$/yr)
Operational GHG Emissions	684.89
Area	*3.09*
Energy	*0.00*
Mobile	*597.30*
Waste	*57.60*
Water	*26.90*
Amortized Construction GHG Emissions[1]	39.39
GHG Reduction from EV Charging Stations[2]	-65.00
Total Annual GHG Emissions[3]	**659.28**
Adjusted SB 32 Threshold	**660**
Exceeds Threshold?	**NO**

[1] It is noted that amortized construction GHG emissions are added here for informational purposes, in an effort to provide a conservative approach to analysis.
[2] See Appendix A for EV charging station GHG emissions reduction calculations.
[3] Rounding may result in small differences in summation.

Source: CalEEMod, June 2021 (see Appendix A).

Consistency with 2017 Scoping Plan

Appendix B to the CARB's 2017 Scoping Plan provides examples of potentially feasible mitigation measures that could be considered to assess a project's compliance with the State's 2030 GHG emissions reductions goals. Thus, general compliance with the Local Actions within the 2017 Scoping Plan could be considered to demonstrate the project's compliance with SB 32. The project's consistency with the applicable Local Actions within the 2017 Scoping Plan is assessed in Table 7 below.

Table 7
Project Consistency with the 2017 Scoping Plan

Suggested Measure	Consistency Discussion
Construction	
Enforce idling time restrictions for construction vehicles.	CARB's In-Use Off-Road Vehicle Regulations include restrictions that limit idling time to five minutes under most situations. Construction fleets and all equipment operated as part of on-site construction activities would be subject to CARB's idling restrictions. As such, the proposed project would be required to comply with this measure.
Require construction vehicles to operate with the highest tier engines commercially available.	The project applicant has not committed to using construction equipment that complies with the highest tier engines commercially available. However, that the project's estimated construction-related emissions of criteria pollutants would fall below the BAAQMD's thresholds, and the BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions.
Divert and recycle construction and demolition waste, and use locally-sourced building materials with a high recycled material content to the greatest extent feasible.	The CALGreen Code requires the diversion of construction and demolition waste, and the proposed project would be required to comply with the most up-to-date CALGreen Code. The project applicant will pursue the feasibility of using locally-sourced building materials or materials with a high recycled content.
Minimize tree removal, and mitigate indirect GHG emissions increases that occur due to vegetation removal, loss of sequestration, and soil disturbance.	As noted previously, 39 on-site trees would be removed as part of the proposed project. However, the trees would be replaced in accordance with MHMC Section 12.32.020. As such, the project would mitigate for losses in sequestration and would be considered to generally comply with the suggested measure.
Utilize existing grid power for electric energy rather than operating temporary gasoline/ diesel powered generators.	The contractor would use existing grid electricity to the extent feasible. However, the possibility exists that temporary generators will be used for electricity in instances where grid electricity is not accessible. Overall, the project would be considered to generally comply with the suggested measure.
Increase use of electric and renewable fuel powered construction equipment and require renewable diesel fuel where commercially available.	The City does not require the use of alternatively fueled construction equipment, unless warranted by mitigation. The project's estimated construction-related emissions of criteria pollutants would fall below the BAAQMD's thresholds, and the BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions. Furthermore, the commercial availability of renewable diesel in the project area is currently unknown.
Require diesel equipment fleets to be lower emitting than any current emission standard.	The project applicant has not committed to reducing emissions from the construction fleet beyond any current emissions standards. As noted above, the project's estimated construction-related emissions of criteria pollutants would fall below the BAAQMD's thresholds, and the BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions.
Operations	
Comply with lead agency's standards for mitigating	As noted in Section XVII, Transportation, of this IS/MND, implementation of the project would result in a less-than-

Table 7
Project Consistency with the 2017 Scoping Plan

Suggested Measure	Consistency Discussion
transportation impacts under SB 743.	significant impact to VMT. As such, the proposed project would comply with this measure.
Require on-site EV charging capabilities for parking spaces serving the project to meet jurisdiction-wide EV proliferation goals.	Pursuant to the 2019 CALGreen Code, residential projects are required to install a listed raceway to accommodate a dedicated 208/240-volt branch circuit for each unit, which would be suitable for EV charging. In addition, in accordance with the MHMC, the proposed project would provide 43 EV-ready vehicle parking spaces, nine of which would be required to have EV-charging stations. Compliance with the 2019 CALGreen Code and the MHMC would ensure that the proposed project provides sufficient EV charging infrastructure to comply with this suggested measure.
Dedicate on-site parking for shared vehicles.	The project applicant has not committed to providing shared vehicles and/or dedicated on-site parking for such shared vehicles. Consequently, compliance with this suggested measure is uncertain at this time.
Provide adequate, safe, convenient, and secure on-site bicycle parking and storage in multi-family residential projects and in non-residential projects.	The proposed project would include 56 short-term bicycle parking spaces located throughout the project site. However, because the land area required to provide long-term bicycle parking would require a reduction in the quantity of affordable housing units, the project also includes a design waiver to request an exemption from the City's long-term bicycle standards. Nonetheless, because the project includes short-term bicycle parking, the proposed project would generally comply with this measure.
Provide on- and off-site safety improvements for bike, pedestrian, and transit connections, and/or implement relevant improvements identified in an applicable bicycle and/or pedestrian master plan.	With implementation of the proposed project, a sidewalk would be constructed along the Monterey Road frontage and along Taylor Avenue. In addition, ADA-compliant curb ramps would be provided at the intersection of Monterey Road and Cochrane Road, and new walkways and pedestrian crossings would be provided throughout the project site to provide continuous pedestrian connectivity. Future residents of the proposed project would have convenient access to the existing bicycle facilities in the project area, including the marked bike lanes along Monterey Road, Cochrane Road, and Burnett Avenue. Considering the project would provide pedestrian facility improvements and provide access to existing bicycle infrastructure, the proposed project would be generally consistent with the suggested measure.
Require on-site renewable energy generation.	The 2019 CBSC requires that residential structures that are three-stories or less in height be constructed with renewable energy systems sufficient to provide 100 percent of the electricity required for the residence. The proposed three-story multi-family residences would be subject to such requirements. Due to the CBSC's requirements regarding renewable energy systems for residential land uses, the proposed project would include on-site renewable energy generation and would comply with this measure.

Table 7
Project Consistency with the 2017 Scoping Plan

Suggested Measure	Consistency Discussion
Prohibit wood-burning fireplaces in new development, and require replacement of wood-burning fireplaces for renovations over a certain size development.	The proposed project would not include wood-burning fireplaces. Thus, the proposed project would comply with the suggested measure.
Require cool roofs and "cool parking" that promotes cool surface treatment for new parking facilities as well as existing surface lots undergoing resurfacing.	The 2019 CBSC contains requirements for the thermal emittance, three-year aged reflectance, and Solar Reflectance Index (SRI) of roofing materials used in new construction and re-roofing projects. Such standards, with which the project would be required to comply, would help to reduce heating and cooling costs associated with the proposed project. In addition, approximately 260 parking spaces would be located within covered tandem carports, which reduces the amount of exposed pavement surfaces. Therefore, surface lot heat effects would be reduced compared to provision of all necessary parking spaces in uncovered surface lots. Therefore, the proposed project would generally comply with the suggested measure.
Require solar-ready roofs.	The 2019 CBSC requires that new residential structures under three stories generate 100 percent of electricity needs from on-site solar. Therefore, the proposed project would comply with this suggested measure.
Require organic collection in new developments.	California state legislature AB 1826 requires commercial and multi-family customers to subscribe to organics recycling. Therefore, the proposed multi-family residential buildings would be required to include organic collection. In addition, the City's garbage provider offers food scraps collection services for multi-family residential buildings. As such, future residents may have access to the organic collection service. Thus, the proposed project would include organic collection and the project would comply with the suggested measure.
Require low-water landscaping in new developments (see CALGreen Divisions 4.3 and 5.3 and the Model Water Efficient Landscape Ordinance [MWELO], which is referenced in CALGreen). Require water efficient landscape maintenance to conserve water and reduce landscape waste.	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 of Morgan Hill. Accordingly, the proposed project is anticipated to comply with this measure.
Achieve Zero Net Energy performance building standards prior to dates required by the Energy Code.	The project applicant has not committed to achieving Zero Net Energy (ZNE). However, the 2019 CBSC has begun phasing in ZNE requirements by requiring residential projects three stories and fewer to meet 100 percent of their electricity needs through rooftop solar. The proposed project would include rooftop solar and, therefore, the proposed would generally comply with this measure.
Encourage new construction, including municipal building construction, to achieve third-party green building certifications, such	The project applicant has not committed to achieving third-party green building certification. Thus, compliance with this suggested measure is uncertain at this time. It should be noted that neither the CBSC nor the City of Morgan Hill

Table 7
Project Consistency with the 2017 Scoping Plan

Suggested Measure	Consistency Discussion
as the GreenPoint Rated program, LEED rating system, or Living Building Challenge.	requires new residential developments to achieve third-party green building certification.
Require the design of bike lanes to connect to the regional bicycle network.	Marked bike lanes exist in the project vicinity. Future residents of the proposed project would have convenient access to the existing bicycle facilities in the project area, including the marked bike lanes along Monterey Road, Cochrane Road, and Burnett Avenue. As noted in the Trip Generation and Operations Analysis prepared for the proposed project, the project is not anticipated to generate a significant number of bicycle trips, and the demand generated by the project could be accommodated by the existing bicycle facilities in the project area. Considering the above, the proposed project would comply with the general intent of the suggested measure.
Expand urban forestry and green infrastructure in new land development.	Landscaping improvements would be included throughout the project site, as shown in Figure 5, including new trees, various shrubs and grasses. As such, the proposed development would expand upon urban forestry and green infrastructure, and would comply with this measure.
Require gas outlets in residential backyards for use with outdoor cooking appliances such as gas barbeques if natural gas service is available.	The City of Morgan Hill prohibits the use of natural gas. Thus, this measure is not applicable to the proposed project.
Require the installation of electrical outlets on the exterior walls of both the front and back of residences to promote the use of electric landscape maintenance equipment.	Pursuant to California Electrical Code, Article 210.52(E), the project would be required to include at least one electrical outlet to be located in the perimeter of a balcony, desk, or porch. Consequently, the project would generally comply with the suggested measure.
Require the design of the electric outlets and/or wiring in new residential unit garages to promote electric vehicle usage.	The CBSC requires that new residential unit garages be designed with wiring sufficient to provide future installation of electric vehicle charging infrastructure. Therefore, the proposed project would be required to comply with this measure.
Require the installation of energy conserving appliances such as on-demand tank-less water heaters and whole-house fans.	The proposed project would be required to comply with the CBSC, which includes standards related to installation of energy-efficient appliances and building features such as water heaters and ventilation systems. Thus, the project would generally comply with the suggested measure.
Require each residential and commercial building equip buildings [sic] with energy efficient AC units and heating systems with programmable thermostats/timers.	The proposed project would be required to comply with the CBSC, which includes standards related to energy-efficient heating and cooling systems. Thus, the project would generally comply with the suggested measure.
Require each residential and commercial building to utilize low flow water fixtures such as low flow toilets and faucets (see CALGreen Divisions 4.3 and 5.3 as well as Appendices A4.3 and A5.3).	The proposed project would be required to comply with the residential water efficiency regulations within CALGreen. Thus, the proposed project would comply with this suggested measure.

Table 7
Project Consistency with the 2017 Scoping Plan

Suggested Measure	Consistency Discussion
Require the use of energy-efficient lighting for all street, parking, and area lighting.	All proposed exterior lighting would be LED type, consistent with the 2019 Building Energy Efficiency Standards. Thus, the proposed project would comply with the suggested measure.
Require the development project to propose an off-site mitigation project which should generate carbon credits equivalent to the anticipated GHG emission reductions. This would be implemented via an approved protocol for carbon credits from California Air Pollution Control Officers Association (CAPCOA), the California Air Resources Board, or other similar entities determined acceptable by the local air district. The project may alternatively purchase carbon credits from the CAPCOA GHG Reduction Exchange Program, American Carbon Registry (ACR), Climate Action Reserve (CAR) or other similar carbon credit registry determined to be acceptable by the local air district.	The inclusion of GHG off-set mitigation projects or the purchase of carbon credits is typically dependent on a project's exceedance of the previously identified quantitative GHG thresholds. Considering that the project has been shown to be generally consistent with the foregoing measures, the City, in its discretion as lead agency, has chosen not to require the project to implement an off-site mitigation project or purchase GHG reduction credits.

Source: California Air Resources Board. AB 32 Scoping Plan [Appendix B]. Accessible at: https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm. Accessed March 2021.

The 2017 Scoping Plan is the CARB's strategy for meeting the State's 2030 emissions goals established by SB 32. As shown in Table 7, the proposed project would generally comply with the majority of the suggested measures and, thus, the proposed project would be considered generally consistent with the 2017 Scoping Plan and the goals established by SB 32.

Consistency with the Plan Bay Area 2040

The San Francisco Bay Area's Plan Bay Area 2040 has been prepared jointly by the San Francisco Bay Area MTC and the ABAG. Plan Bay Area 2040 is a regional plan intended to provide a strategy for the reduction of GHG emissions and air pollutants within the San Francisco Bay Area. The Plan Bay Area 2040 is a long-range plan that serves as a Regional Transportation Plan and Sustainable Communities Strategy (SCS). As an SCS, the Plan Bay Area 2040 is required to comply with regional targets for reducing GHG emissions through the integration of transportation and land use planning. ABAG has not provided a specified means of identifying an individual development project's compliance with the Plan Bay Area 2040. For the purposes of this analysis, the proposed project is compared to the overall goal of the Plan Bay Area 2040, which is to reduce regional GHG emissions through the reduction of transportation-related emissions.

With implementation of the proposed project, a new sidewalk would be constructed along the Monterey Road frontage and Taylor Avenue, and new internal walkways and pedestrian crossings would be provided throughout the project site to provide continuous pedestrian connectivity. In addition, future residents of the proposed project would have convenient access to the existing bicycle facilities in the project area. The project site is served by VTA bus routes that extend along Cochrane Road and Hale Avenue, and several bus stops are located within a one-mile walking distance from the project site. According to the Trip Generation and Operations Analysis, the transit ridership demands of the proposed project can be accommodated by the existing transit facilities. The proposed project's pedestrian and bicycle connectivity and proximity to public transit would help to reduce the need for single-passenger vehicle trips and associated transportation-related emissions.

Furthermore, as discussed in Section XVII, Transportation, the Office of Planning and Research (OPR) Guidelines state that adding affordable housing to infill locations generally improves the jobs-housing balance, in turn shortening commutes and reducing VMT. In addition, the OPR Guidelines state that in areas where the existing jobs-housing balance is closer to optimal, low-income housing nevertheless generates less VMT than market-rate housing. Accordingly, OPR recommends that 100 percent of affordable residential development in infill locations be presumed to have a less-than-significant impact on VMT. Because the proposed project would be an 100-percent affordable residential development, the proposed project would be considered to have a less-than-significant impact on VMT and, consequently, GHG emissions associated with vehicle use from the proposed housing development.

Because the proposed project would not significantly contribute to an increase in regional VMT and would support infrastructure that reduces transportation-related GHG emissions, the proposed project would be considered consistent with the Plan Bay Area 2040, and would not conflict with the regional GHG reduction targets therein.

Conclusion

Based on the above, project emissions would be below the BAAQMD's threshold of significance and would not be considered to conflict with the emissions reductions required by AB 32 or SB 32. In addition, the project would be generally consistent with the 2017 Scoping Plan as well as the Plan Bay Area 2040. As such, the proposed project would not be considered to 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, and impacts would be considered ***less than significant***.

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. Residential uses are not typically associated with the routine transport, use, disposal, or generation of hazardous materials. Operations would likely involve use of common household cleaning products, fertilizers, and herbicides on-site, any of which could contain potentially hazardous chemicals; however, such products would be expected to be used in accordance with label instructions. Due to the regulations governing use of such products and the amount utilized on the site, occasional use of such products would not represent a substantial risk to public health or the environment. Therefore, the proposed project is not anticipated to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and a ***less-than-significant*** impact would occur.

b. The following discussion provides an analysis of potential hazards and hazardous materials associated with upset or accident conditions related to the proposed construction activities and existing on-site conditions. The analysis is primarily based on a Phase I and Limited Phase II ESA prepared for the proposed project by Earth Systems Pacific and a Phase II ESA prepared by GeoSolve, Inc. (GeoSolve) in 2020.

Construction Activities

Construction activities associated with the proposed project would involve the use of various products such as concrete, paints, and adhesives. In addition, heavy-duty construction equipment operating on the project site would contain hydraulic fluid, diesel fuel, and other petroleum products. Small quantities of such potentially toxic substances would be used at the project site and transported to and from the site during construction.

However, the project contractor would be 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.

Existing On-Site Hazardous Conditions

A Phase I and Phase II Limited ESA was prepared by Earth Systems Pacific for the purpose of identifying potential recognized environmental conditions (RECs) associated with the project site (see Appendix D).[22] The ESA included a survey of the site and a review of historical documentation, aerial photography, regulatory agency files, and environmental sites radius reports. Based on historical aerial photography, the project site contained a winery from 1939 to 1963, and the existing vehicle salvage and moving van rental business has operated on the project site since the closure of the winery in 1963.

Initial site observations conducted as part of the Phase I ESA noted that the project site was generally well-kept. Concrete pads used for draining automobile fluids and the dismantling of vehicles were stained but in fair condition, except for concrete pavement within the southwestern portion of the site, which was noted to be in varying stages of deterioration. The warehouse structure was well-kept with localized minor staining of the concrete floor, and the single-story building and parking areas associated with the U-Haul rental storage business did not contain evidence of surface staining. However, minor amounts of localized soil staining were present throughout the former parking areas used to store inoperative vehicles, and significant staining was present surrounding a crusher. Specifically, leaked remnant vehicle fluids were absorbed within the soils in front of the crusher; the project operator noted that the soils surrounding the crusher have been used to absorb residual vehicle fluids, and that the soil is off-hauled for disposal.

Because of historical agriculture uses on the project site and recent use of the site as a vehicle salvage yard, Earth Systems Pacific took 17 discrete samples and five four-point composite samples from shallow soils at the project site and screened the samples for possible organochlorine pesticide use and other potential contaminants. Low levels of the organochlorine pesticide DDT were present in several samples, and, in general, elevated levels of lead, nickel, diesel and motor oil, and two samples of chromium, were detected throughout the shallow soil samples at levels in excess of their respective Environmental Screening Level (ESL) threshold, as set forth by the RWQCB. In addition to these samples, all of the samples exceeded the ESL threshold for arsenic.

Based on the results of testing, specifically in the area of the vehicle crusher, Earth Systems Pacific determined that levels of elevated metals and petroleum hydrocarbons are generally present in the upper one to two feet of soil at the project site. As such, Earth Systems Pacific recommended that additional soil sampling and analyses for metals, petroleum hydrocarbons, and volatile organic compounds be performed beneath concrete slabs, such as the dismantling area, and that additional sampling be performed to evaluate the horizontal and vertical extent of the elevated levels of metal. As a result of this recommendation, GeoSolve conducted further soil sampling as part of a Phase II ESA (discussed below).

[22] Earth Systems Pacific. *Phase I Environmental Site Assessment and Limited Phase II Soil Screening, Monterey Road Development, 18960 Monterey Road, Morgan Hill, California.* March 26, 2020.

Phase II ESA Soil and Soil-Vapor Sampling

A Phase II ESA was prepared for the proposed project by GeoSolve, which included soil and groundwater sampling and analysis (Appendix E).[23] On May 7 and May 8, 2020, 12 borings were drilled to approximately 30 feet to 33 feet bgs and six shallow borings (VP-1 through VP-6) were drilled to approximately five feet bgs using a direct-push rig. The locations of borings B-1 through B-12 and VP-1 through VP-6 are shown in Figure 10. Once borings VP-1 through VP-6 were drilled, they were completed as temporary vapor-probes installed at five feet bgs. On September 17, 2020, five borings (B13 through B17) were drilled to groundwater in order to collect groundwater samples beneath the site. Because groundwater from borings B15 and B16 contained too much sediment for adequate groundwater analysis, two additional groundwater borings were drilled on September 28, 2020.

Based on the laboratory analytical results obtained from the shallow soil samples, lead was detected slightly above the 82 milligrams per kilogram (mg/Kg) (CRWQCB ESL for residential development), at 99.5 mg/Kg. All other metals, with the exception of arsenic, did not exceed their respective ESLs for residential development. In regard to arsenic, the California Environmental Protection Agency (Cal EPA) uses background arsenic concentrations as a cleanup goal. Background concentrations of arsenic in southern Santa Clara Valley range from 1 mg/Kg up to 15 mg/Kg, depending on geology. All samples analyzed from the surficial and subsurface soil indicated arsenic concentrations within background levels. In addition, polychlorinated biphenyls (PCBs) were not detected in any surficial soil sample analyzed from the site. Volatile organic compounds (VOCs) were mostly undetected, while exceptionally low concentrations of trichloroethylene (TCE) and tetrachloroethylene (PCE) were detected well below the ESLs of 0.95 mg/Kg and 0.59 mg/Kg for residential development, respectfully.

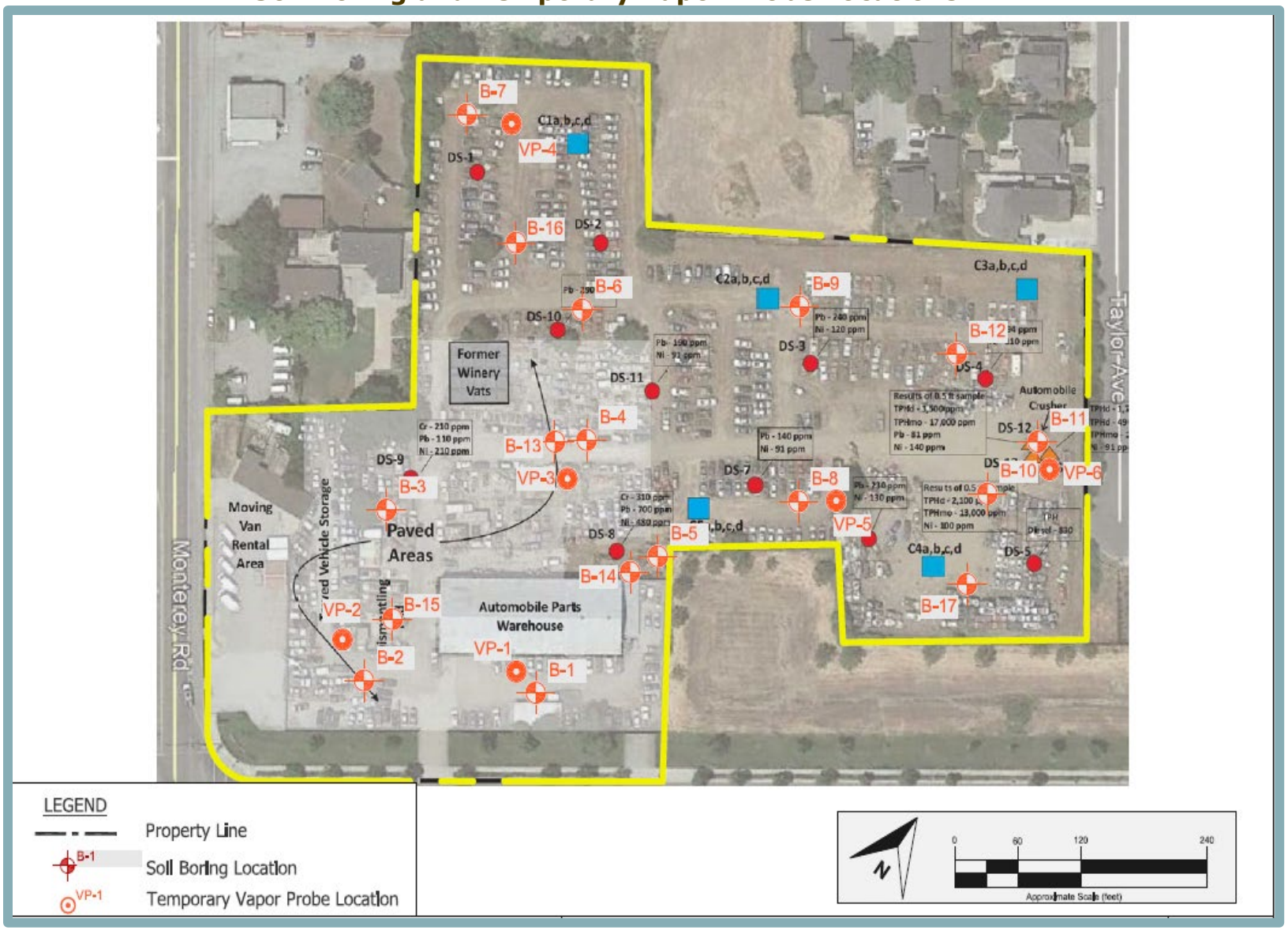
As part of the Limited Phase II ESA conducted by Earth Systems Pacific, diesel and motor oil were detected at 3,500 parts per million (ppm) and 1,700 ppm, respectively, within one discrete soil sample taken in March 2020. Therefore, Earth Systems Pacific recommended that the Phase II ESA include an analysis of diesel and motor oil levels to determine whether these two contaminants of concern (COCs) are present within on-site soils in excess of their respective residential ESL levels. As part of soil sampling conducted for the Phase II ESA, GeoSolve detected diesel up to 709 mg/Kg, while motor oil was detected up to 2,490 mg/Kg in soil sample B1-0.5. Although diesel was detected at levels above the residential ESL of 260 mg/Kg for this location, other soil samples did not indicate elevated diesel and/or motor-oil concentrations within other areas of the site. Therefore, the elevated concentrations of diesel and motor oil detected at the ground surface appear to be limited to exceedingly small locations and are not laterally extensive. Lead concentrations at the project site are similarly limited to small locations around the site and are not laterally extensive.

In regard to groundwater sampling, detectable concentrations of diesel and motor oil were not detected in groundwater samples taken from borings B-13 through B-17. Because VOCs were either not detected or detected at exceptionally low concentrations in soil-gas and/or subsurface soil, VOCs were not analyzed in the groundwater samples.

---

[23] GeoSolve, Inc. *Phase II Environmental Site Assessment for Parts and Tow 18960 Monterey Road, Morgan Hill, California, for JEMCOR Development Partners*. October 5, 2020.

Figure 10
Soil Boring and Temporary Vapor Probe Locations



Soil and Soil-Vapor Sampling Conclusions

Overall, the soil and soil-vapor sampling conducted as part of the Phase II ESA determined that lead was the only elevated metal detected in on-site soils at a level slightly over the residential ESL of 82 mg/Kg. Other metals were not detected above ESLs, with the exception of arsenic, which was detected at the standard of care for Cal EPA. VOCs were mostly undetected and/or below ESLs in both soil and soil-gas beneath the site, and PCBs were not detected in any shallow soil sample analyzed from the site. Lead concentrations were isolated to small locations and were not laterally extensive. While diesel was similarly detected in exceedingly small locations and was determined to not be laterally extensive, the presence of diesel was detected at an elevated concentration within one soil sample at 709 mg/Kg, which is above the residential ESL of 260 mg/Kg.

Based on the above, GeoSolve has prepared a Workplan for Shallow Soil Remediation (see Appendix F) to provide remediation details for the elevated metals and petroleum hydrocarbons detected in shallow soils as part of the Earth Systems Pacific Phase I ESA and Limited Phase II ESA, as well as GeoSolve's Phase II ESA.[24] More specifically, the Workplan requires that all COCs identified in the environmental investigations conducted by Earth Systems Pacific (March 2020) and GeoSolve (October 2020) be excavated and properly disposed. As shown in Figure 11, eight 30-foot by 30-foot, one 30-foot by 60-foot, and one 100-foot by 120-foot area are proposed for excavation to approximately 0.5-foot bgs. Excavation to approximately one-foot bgs is anticipated within the 100-foot by 12-foot area located within the eastern portion of the site.

Excavation activities would take place until all black and/or green soil-stained areas are completely removed and soil samples confirm the successful remediation of on-site soils. The proposed excavation volumes are shown in Table 8 below, which includes total surface area, cy of soil, fluff factor cy, and tons of soil generated during excavation activities at the site. Overall, approximately 1,002 tons of soil are proposed to be excavated as part of soil remediation activities. The excavated soils would be further tested and analyzed for petroleum hydrocarbons, VOCs, semi-VOCs, PCBs, organochlorine pesticides, and CAM 17 metals prior to disposal at an accepting Class II landfill.

Table 8
Proposed Excavation Soil Volumes

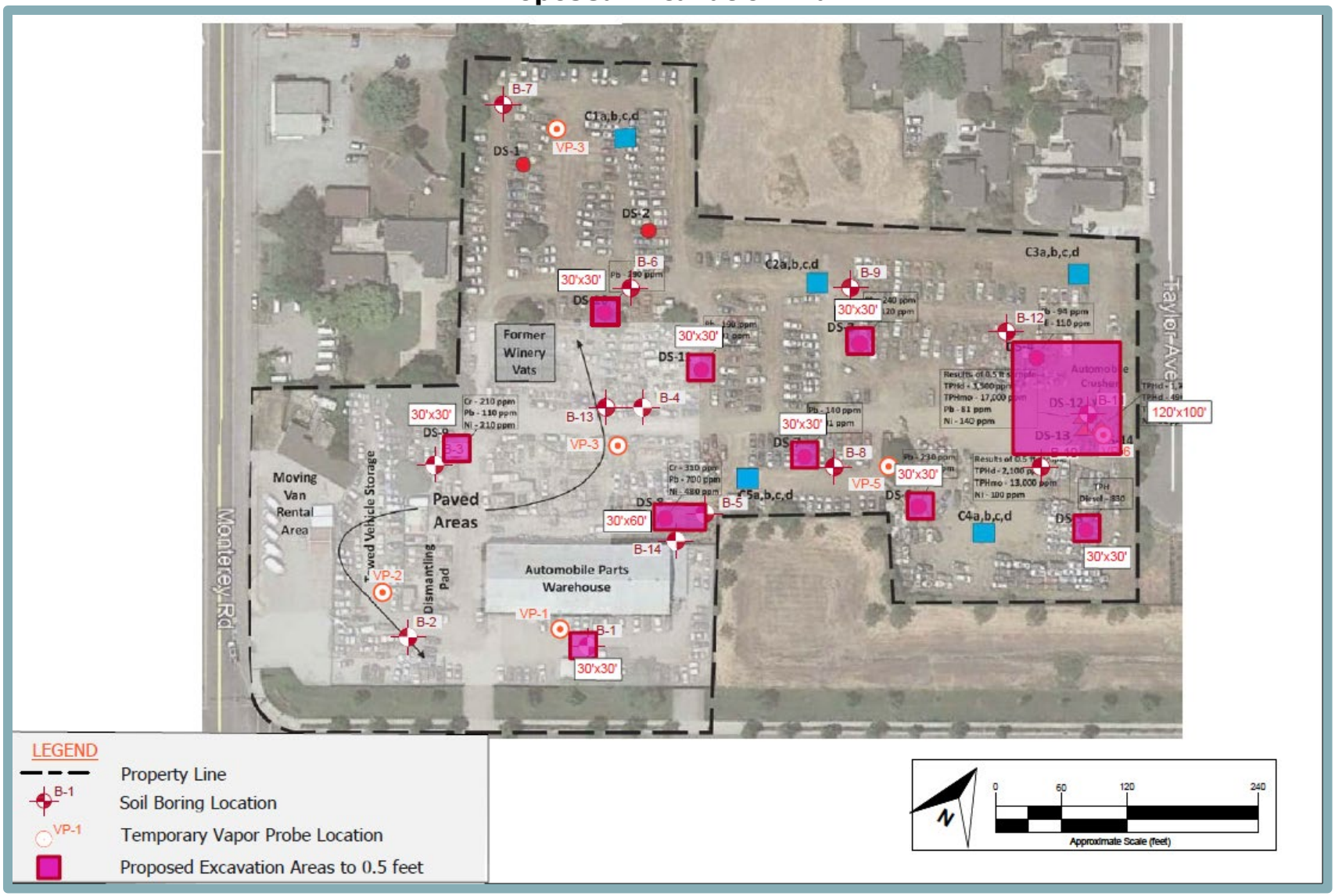
Area	Number	Total Area (sf)	Depth (feet)	Volume (cy)	Fluff Factor (cy x 1.5)[1]	Tons
30' x 30'	8	900	0.5	16.7	25	33.75
30' x 60'	1	1,800	0.5	33.3	50	67.5
100' x 120'	1	12,000	1	444.4	667	900.45
Total		**14,700**		**494.4**	**742**	**1,002**

[1] A cubic yard of earth measured in its natural position swells to more than a cubic yard after it is excavated. This occurs because of an increase in voids.

Source: GeoSolve, Inc., 2021.

[24] GeoSolve, Inc. *Workplan for Shallow Soil Remediation, for Parts and Tow, 18960 Monterey Road, Morgan Hill, California, for JEMCOR Development Partners, LLC*. April 12, 2021.

Figure 11
Proposed Excavation Plan



To confirm that on-site soils would be suitable for residential development after soil remediation activities are completed, five bottom confirmation soil samples and four sidewall confirmation soil samples would be collected from the 30-foot by 30-foot excavation area; 10 bottom confirmation soil samples and six sidewall confirmation soil samples would be collected from the 30-foot by 60-foot excavation area; and 25 bottom confirmation soil samples and 14 sidewall confirmation soil samples would be collected from the 100-foot by 120-foot excavation area. The collected soil samples would be analyzed for diesel, motor oil, chromium, lead, and nickel using standard EPA methods and the findings summarized in a report to be submitted for review prior to finalization and seal by a California Certified Engineering Geologist.

Based on the above, without implementation of the Workplan for Shallow Soil Remediation, which includes a soil management plan inclusive of site preparation recommendations, decontamination procedures for all on-site equipment, and protocols to be undertaken in the event that previously unknown contamination is encountered, a potentially significant impact could occur in relation to RECs and the likely release of hazardous materials into the environment.

Asbestos-Containing Materials and Lead-Based Paint

Asbestos is the name for a group of naturally occurring silicate minerals that are considered to be “fibrous” and, through processing, can be separated into smaller and smaller fibers. The fibers are strong, durable, chemical resistant, and resistant to heat and fire. They are also long, thin, and flexible, such that they can be woven into cloth. Because of the above qualities, asbestos was considered an ideal product and has been used in thousands of consumer, industrial, maritime, automotive, scientific, and building products. However, later discoveries found that, when inhaled, the material caused serious illness.

For buildings constructed prior to 1980, the Code of Federal Regulations (29 CFR 1926.1101) states that all thermal system insulation (boiler insulation, pipe lagging, and related materials) and surface materials must be designated as “presumed asbestos-containing material” unless proven otherwise through sampling in accordance with the standards of the Asbestos Hazard Emergency Response Act. Because the existing structures were built prior to 1980, the potential exists that asbestos-containing materials were used in the construction of the warehouse and single-story building to be demolished.

Lead-based paint (LBP) is defined by federal guidelines as any paint, varnish, stain, or other applied coating that has one milligram of lead per square centimeter or greater. Lead is a highly toxic material that may cause a range of serious illnesses, and in some cases death. In buildings constructed after 1978, the presence of LBP is unlikely. Structures built prior to 1978, and especially prior to the 1960s, are expected to contain LBP. The existing structures were constructed before the phase-out of LBPs in the 1970s. Therefore, the potential exists for LBPs to be present in the existing warehouse and single-story building on the project site.

Based on the age of the on-site structures, asbestos-containing materials and LBP are presumed to be present within the two structures. Because the proposed project would include demolition of the two structures, the proposed project could potentially expose construction workers to LBP and asbestos-containing materials during structural demolition.

Surrounding Properties

According to Environmental Data Resources (EDR), eight facilities located within 1/8-mile of the project site are listed within regulatory agency databases for the handling and/or storage of hazardous substances. The closest listed property to the project site is located at 18735 Madrone Parkway, approximately 96 feet southeast of the site. However, none of the listings indicate that a release of hazardous substances has occurred at their respective facilities. According to the Phase I ESA, the type of listing, status, and/or distance from the subject site precludes the eight listed properties from posing an environmental risk to the project site.

Conclusion

To ensure that surficial soils at the project site would not release hazardous materials into the environment, the excavation and disposal of the COCs identified in the environmental investigations would be required to take place prior to project development. Specifically, pursuant to the Workplan for Shallow Soil Remediation prepared by GeoSolve, excavation activities would be required to take place until all black and/or green soil-stained areas are completely removed and soil samples confirm the successful remediation of on-site soils. In addition, because the existing on-site structures were constructed prior to the banning of asbestos-containing materials and LBP, an asbestos and lead survey would be required to determine the presence of asbestos-containing materials and LBP within the existing structures prior to demolition.

Without implementation of the aforementioned recommendations, 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 ***potentially 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.

IX-1 *Under the oversight of the Santa Clara County Department of Environmental Health (SCCDEH), the project applicant shall remove all wrecked vehicles and scrap metal from the site prior to implementation of the Workplan for Shallow Soil Remediation prepared by GeoSolve (April 12, 2021). The SCCDEH shall oversee implementation of the Workplan for Shallow Soil Remediation, which shall include, but shall not be limited to, the excavation and disposal of the COCs identified in the environmental investigations conducted by Earth Systems Pacific (March 26, 2020) and GeoSolve (October 5, 2020) by a State-licensed hazardous waste contractor, and the collection of confirmation soil samples to be analyzed by a state-certified hazardous waste testing laboratory for diesel (TEPHd), motor oil (TEPHmo), chromium, lead, and nickel . A qualified field geologist shall be present to observe excavation, disposal, and soil collection activities. The field geologist shall prepare a report summarizing the results of the Workplan for Shallow Soil Remediation upon completion of soil remediation activities. The report shall be submitted to the City of Morgan Hill Development Services Division for review and approval prior to demolition activities.*

IX-2 *Prior to issuance of a demolition permit for on-site structures, the project applicant shall consult with certified Asbestos and/or Lead Risk Assessors to complete and submit for review to the Building Division an asbestos and lead survey. If asbestos-containing materials or lead-containing materials are not discovered during the survey, further mitigation related to asbestos-containing materials or lead-containing materials shall not be required. If asbestos-containing materials and/or lead-containing materials are discovered by the survey, the project applicant shall prepare a work plan to demonstrate how the on-site asbestos-containing materials and/or lead-containing materials shall be removed in accordance with current California Occupational Health and Safety (Cal-OSHA) Administration regulations and disposed of in accordance with all CalEPA regulations, prior to the demolition and/or removal of the on-site structures. The plan shall include the requirement that work shall be conducted by a Cal-OSHA registered asbestos and lead abatement contractor in accordance with Title 8 CCR 1529 and Title 8 CCR 1532.1 regarding asbestos and lead training, engineering controls, and certifications. The applicant shall submit the work plan to the City for review and approval. The City has the right to defer the work plan to the Santa Clara County Department of Environmental Health for additional review. Materials containing more than one (1) percent asbestos that is friable are also subject to BAAQMD regulations. Removal of materials containing more than one (1) percent friable asbestos shall be completed in accordance with BAAQMD Section 11-2-303.*

c. The nearest school relative to the project site is Central High School, located approximately 0.5-mile northwest of the site. As discussed under questions 'a' and 'b' above, with implementation of mitigation, development of the proposed project would not result in any significant hazards related to the use, transport, disposal, or upset of hazardous materials. Thus, ***no impact*** would result relating to the emission or handling of hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

d. The project site is not listed on the Department of Toxic Substance Control (DTSC)'s Hazardous Waste and Substances Site List, otherwise known as the Cortese List. Therefore, a ***less-than-significant*** impact in regard to being located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 would result from implementation of the proposed project.

e. The public airport nearest to the project site is the San Martin Airport, which is located approximately 7.1 miles south of the project site at 13030 Murphy Avenue. The project site is located well outside of the Airport Influence Area (AIA) identified in the South County Airport Comprehensive Land Use Plan.[25] In addition, the project site is not located within the vicinity of a private airstrip. Therefore, the proposed project would not result in an airport-related safety hazard for people residing or working in the project area, and ***no impact*** would occur.

f. Implementation of the proposed project would not result in any substantial modifications to the City's existing roadway system. The installation of a dedicated eastbound left-turn

[25] Santa Clara County. *Comprehensive Land Use Plan, Santa Clara County, South County Airport.* Amended November 16, 2016.

lane on Madrone Parkway as part of the proposed project would reduce the potential for operational conflicts and traffic hazards on Madrone Parkway. Furthermore, the proposed project would not interfere with potential evacuation or response routes used by emergency response teams and would not conflict with the City's Emergency Operations Plan.[26] The proposed project is consistent with the site's current General Plan land use and zoning designations; thus, development of the site and associated effects on emergency evacuation routes has been anticipated by the General Plan and analyzed in the General Plan EIR.

Based on the above, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and a ***less-than-significant*** impact would occur.

g. The City's Wildland Urban Interface map indicates that the project site is not located in a High or Very High Fire Hazard Severity Zone (FHSZ).[27] In addition, buildout of the site has been previously considered by the City, and the project site is situated within a developed area. Therefore, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands, and a ***less-than-significant*** impact would occur.

[26] City of Morgan Hill. *Emergency Operations Plan.* January 11, 2018.

[27] City of Morgan Hill. *City of Morgan Hill Wildland Urban Interface Map.* March 2009.

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. The proposed project's potential to result in water quality impacts during construction and operations is discussed in further detail separately below.

Construction

Project construction activities such as grading, excavation, and trenching for site improvements would result in the disturbance of on-site soils. The exposed soils have the potential to affect water quality in two ways: 1) suspended soil particles and sediments transported through runoff; or 2) sediments transported as dust that eventually reach local water bodies. Spills or leaks from heavy equipment and machinery, staging areas, or building sites also have the potential to enter runoff. Typical pollutants include, but are not limited to, petroleum and heavy metals from equipment and products such as paints, solvents, and cleaning agents, which could contain hazardous constituents. Sediment from erosion of graded or excavated surface materials, leaks or spills from equipment, or inadvertent releases of building products could result in water quality degradation if runoff containing the sediment or contaminants should enter receiving waters in sufficient quantities. Impacts from construction-related activities would generally be short-term and of limited duration.

Water quality degradation is regulated by the federal NPDES Program, established by the Clean Water Act, which controls and reduces pollutants to water bodies from point and non-point discharges. In California, the NPDES permitting program is administered by the

State Water Resources Control Board (SWRCB) through nine Regional Water Quality Control Boards (RWQCBs). As discussed in Section VII, Geology and Soils, of this IS/MND, new development within the City that disturbs one or more acres of land is required to comply with the NPDES General Construction Permit and prepare a SWPPP incorporating BMPs to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. The proposed project would disturb approximately 7.5 acres, and, thus, would be subject to the State NPDES General Permit conditions.

The proposed project would also be subject to all regional and local water quality regulations. In order to meet water quality objectives for the region, the City of Morgan Hill, City of Gilroy, and County of Santa Clara have prepared and are implementing a Revised Regional Storm Water Management Plan (SWMP). The SWMP incorporates the efforts of the City of Morgan Hill, the City of Gilroy, and the unincorporated portion of Santa Clara County, within the watershed of the Pajaro River and Monterey Bay, to meet the Phase II Storm Water Permit requirements for small municipal separate storm sewer systems (MS4s). The Upper Pajaro River Watershed is located within the jurisdiction of the CCRWQCB. The City of Morgan Hill implements the SWMP through an extensive program that entails: 1) the establishment of SWMP goals for the City; 2) public education and outreach; 3) public involvement and participation; 4) illicit discharge control; 5) construction site storm water runoff control; 6) post-construction storm water management in development; and 7) pollution prevention. For construction activities, the SWMP presents BMPs that are required for the control of storm water runoff quality during construction, including, but not limited to, covering disturbed areas with mulch, temporary seeding, soil stabilizers, binders, fiber rolls or blankets, temporary vegetation, and permanent seeding.

Operation

After project completion, impervious surfaces on the project site could contribute incrementally to the degradation of downstream water quality during storm events. During the dry season, vehicles and other urban activities may release contaminants onto the impervious surfaces, where they would accumulate until the first storm event. During the initial storm event, or first flush, the concentrated pollutants would be transported via stormwater runoff from the site to the stormwater drainage system and eventually a downstream waterway. Typical urban pollutants that would likely be associated with the proposed project include sediment, pesticides, oil and grease, nutrients, metals, bacteria, and trash. In addition, stormwater runoff could cause soil erosion if not properly addressed, which would provide a more lucrative means of transport for pollutants to enter the waterways.

The proposed project would be managed in accordance with Resolution R3-2013-0032 issued by CCRWQCB. This resolution formally adopts post-construction stormwater management requirements for development projects in the Central Coast Region. The requirements identify 10 Watershed Management Zones (WMZs) in the covered area, and specify stormwater management requirements for each zone, depending on the size of the development project. Because the proposed project site is located in an area classified as WMZ-1, stormwater management at the project site must include site design and runoff features to limit the amount of runoff from the project site as well as on-site water quality treatment to reduce pollutant loads in the stormwater runoff using a Low Impact Development (LID) treatment system such as optimized infiltration. In WMZ-1, the

treatment system must retain 95 percent of the runoff from the project site and also maintain peak runoff flows such that they do not exceed pre-project flows.

A preliminary Stormwater Control Plan (SWCP) has been prepared for the proposed project, which divides the project site into four DMAs. New storm drainage inlets and storm drain lines within the internal drive aisles would allow stormwater runoff within DMAs 1 and 2 to flow by way of underground storm drains, toward one of two underground retention facilities referred to as SCM-1 and SCM-2 within the Preliminary Stormwater Control Plan. SCM-1 would be located in the southwestern portion of the project site within Drive Aisle E. The approximate volume and footprint of SCM-1 is 12,080 cubic feet and 4,830 square feet, respectively. SCM-2 would be located in the northeastern portion of the project site within Drive Aisle K. The approximate volume and footprint of SCM-2 is 7,900 cubic feet and 3,160 square feet, respectively. With the installation of outlet control structures to manage peak flows, both retention facilities would be sized to restrict post-project flows to pre-project levels for the 2-year, 10-year, and 25-year, 24-hour storm events as required by the City and the CCRWQCB, and the proposed storage volume would exceed the 95th percentile first flush treatment volume requirement. In comparison, DMAs 3 and 4 include curb, gutter, sidewalk, and landscape improvements which drain to existing public streets. Because these DMAs are within the public right-of-way and tributary to the public streets, the proposed project is not required to treat these areas as discussed in Chapter 2.3 of the C.3. Stormwater Handbook.

Pursuant to Chapter 18.140 (Post Construction Stormwater Pollution Prevention) of the MHMC, the proposed project would be subject to permanent storm water pollution prevention measures. As such, the proposed project would be required to comply with the design standards set forth in Section 18.140.040 (Design standards and selection of best management practices), and select and implement BMPs to the satisfaction of the City in accordance with the requirements contained in the most recent versions of the following documents:

1. City of Morgan Hill Stormwater Post Construction Best Management Practices Development Standards for new development and redevelopment;
2. California Storm Water Quality Association Best Management Practice Handbooks;
3. City of Gilroy, City of Morgan Hill and County of Santa Clara Regional Stormwater Management Plan (SWMP), as approved by the Central Coast Regional Water Quality Control Board; and
4. City of Morgan Hill Hydro-modification Management Plan, as approved by the Central Coast Regional Water Quality Control Board.

The final design of the proposed drainage system would be reviewed and approved by the City of Morgan Hill Engineering Land Development Division, which would ensure that the proposed drainage system complies with the City's Post Construction Stormwater Pollution Prevention Ordinance with respect to incorporating sufficient permanent stormwater treatment control BMPs. Therefore, water quality standards or waste discharge requirements would not be violated, and water quality would not be degraded as a result of the proposed project operations.

Conclusion

Based on the above discussions, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or

ground water quality during construction or operations. Therefore, a ***less-than-significant*** impact would occur.

b,e. The City's water supplies currently consist entirely of groundwater. Approximately 25 percent of the City's supply is extracted from the Coyote Valley subarea of the Santa Clara Subbasin, and approximately 75 percent is extracted from the Llagas Subbasin. The project site is located within the Llagas Subbasin. Neither of the subbasins are in a condition of overdraft, and groundwater levels are not expected to drop.[28] It should be noted that water supply is discussed in Section XIX, Utilities and Service Systems, of this IS/MND.

Groundwater within the Llagas Subbasin is managed by the SCVWD. The 2016 Groundwater Management Plan (GWMP), prepared pursuant to the Sustainable Groundwater Management Act of 2014 (SGMA), describes the SCVWD's comprehensive groundwater management framework, including existing and potential actions to achieve basin sustainability goals and ensure continued sustainable groundwater management. The GWMP covers the Santa Clara and Llagas subbasins, located entirely in Santa Clara County and identified by the Department of Water Resources (DWR) as Basins 2-9.02 and 3-3.01, respectively. Pursuant to the DWR, the Llagas Subbasin is designated as a high-priority basin.[29] Major recharge facilities within the Llagas Subbasin include the Uvas and Chesbro Reservoirs, in-stream recharge in Llagas and Uvas Creeks, the Madrone Channel, the San Pedro and Main Avenue groundwater recharge ponds, and the Uvas-Llagas pipeline, which is capable of diverting water from Uvas Reservoir to Llagas Creek.

The proposed project would provide 65,580 square feet of landscaped, grassy areas capable of absorbing stormwater and providing groundwater recharge. Given that groundwater levels within the subbasin underlying the project site are currently stable, and that the proposed project would provide for opportunities for on-site recharge, the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the Llagas Subbasin. In addition, the project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Thus, a ***less-than-significant*** impact would occur.

ci-iii. The project site has been previously developed with a warehouse structure, a single-story building, and paved parking areas. Thus, approximately 35,700 square feet of impervious surfaces currently exist on the site. Development of the proposed project would include approximately 258,880 square feet of impervious surfaces, which would alter the existing drainage pattern of the site. However, as discussed above, on-site stormwater runoff would be collected by a series of drain inlets and transported, by way of underground storm drains, to two underground detention basins with sufficient storage to allow stored runoff to infiltrate underlying soils in a manner similar to what currently occurs on-site. During large storm events, excess runoff would be discharged to the City's public storm drain system located in Madrone Parkway. The two underground detention systems, as well as 65,580 square feet of new pervious landscaped and grassy areas, would treat and retain 95 percent of the runoff from the project site and would also maintain peak runoff

[28] City of Morgan Hill. *Morgan Hill 2035 Final Environmental Impact Report* [pg. 4.9-18]. Adopted July 2016.

[29] Santa Clara Valley Water District. *2016 Groundwater Management Plan, Santa Clara and Llagas Subbasins* [pg. ES-1]. November 2016.

flows such that they do not exceed pre-project flows in accordance with the stormwater management requirements adopted by Resolution R3-2013-0032.

Based on the above, the proposed project would not significantly increase stormwater flows such that the capacity of the City's existing stormwater drainage system would be exceeded. The final drainage system design for the project would be subject to review and approval by the City of Morgan Hill Engineering Land Development Division, who would confirm that the proposed drainage system for the project is consistent with the City's Storm Drainage Master Plan and standard stormwater-related conditions of approval. Therefore, the proposed project would not substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion, siltation, or flooding on- or off-site, 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. Thus, a ***less-than-significant*** impact would occur.

civ. According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) number 06085C0443H, the project site is located entirely within Zone X, defined as an area that is located outside of the 100-year floodplain. As such, the project would not impede or redirect flood flows or expose people or structures to a significant loss, injury, or death involving flooding. Therefore, the proposed project would result in a ***less-than-significant*** impact.

d. A seiche is defined as a wave generated by rapid displacement of water within a reservoir or lake, due to an earthquake that triggers land movement within the water body or land sliding into or beneath the water body. The project site is not located near a water body that is susceptible to seiche hazard. In addition, the distance to the nearest coastline does not subject the site to tsunami hazards. The project site is within the dam failure inundation hazard zone for Anderson Reservoir as indicated within the dam failure inundation hazard maps.[30]

The dams in Santa Clara County are managed by the SCVWD. The dams are inspected twice each year and are continuously monitored for seepage and settling and inspected immediately following significant earthquakes. A seismic stability evaluation performed in 2007 for Anderson Dam indicated that the downstream and upstream embankments could become unstable during a very large magnitude earthquake and the rupture of faults underlying the dam may have adverse impact on the outlet pipes and intake structure. The SCVWD has initiated a capital project, the Anderson Dam Seismic Retrofit Project (ADSRP), to complete the planning, design, and construction of the seismic retrofit of the dam. Construction work for the ADSRP is planned to start in 2021.[31]

Until recently, in order to protect the public from potential effects until the ADSRP is complete, a storage restriction of approximately 45 feet below the dam crest has been put in place, with a reduced storage capacity of 61,810 acre-feet. The SCVWD and regulatory agencies (California Division of Safety of Dams and the Federal Energy Regulatory Commission) have approved the restriction and believe that the restriction would be sufficient to prevent the uncontrolled release of water in case of dam failure after a major

[30] Association of Bay Area Governments. *Dam Failure Inundation Hazard Map for Morgan Hill*. 1995. Available at: http://www.mhcert.com/prepare/dam_failure.shtml. Accessed April 2021.

[31] Santa Clara Valley Water District. *C1: Anderson Dam Seismic Retrofit.* Available at: https://www.valleywater.org/anderson-dam-project. Updated November 2018.

earthquake. As of December 2020, Anderson Reservoir, the largest reservoir in Santa Clara County, has been completely drained under the direction of federal dam regulators.

Based on the above, the proposed project would not be exposed to substantial risks related to flooding as a result of the failure of a dam, tsunamis, or seiches. In addition, as discussed under question 'cvi' above, the proposed project would not include development of structures or placement of fill within a 100-year floodplain. Therefore, the project would not result in the release of pollutants due to project inundation, and a ***less-than-significant*** impact would occur.

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. The proposed project would essentially function as an extension of the existing residential neighborhoods to the north, west, and east of the site. In addition, the proposed project would include sidewalk improvements along the project frontage to increase pedestrian connectivity in the project area. As such, the project would not physically divide an established community, and a ***less-than-significant*** impact would occur.

b. The City's General Plan Land Use map identifies approximately 70 percent of the site as Residential Attached Low, which permits a density of six to 16 du/ac. Approximately 30 percent of the site is identified as MU-F, which permits a density of seven to 24 du/ac. The combined land uses allow for a maximum density of 140 units. Because the proposed project is a 100 percent deed-restricted affordable housing development, the proposed project would qualify for a density bonus and four concessions or incentives pursuant to Government Code Section 65915. With an 80 percent density bonus above the base density, the proposed project would develop a total of 249 units at a density of 33 du/ac. Therefore, the proposed density and unit count of the proposed project would be consistent with the General Plan land use designations with the density bonus.

As is permitted by Government Code Section 65915(d)(2)(D), the project applicant has requested the following three concessions:

a. Parking Space Dimensions: Reduce the size of the garage tandem parking spaces to 10 feet by 18 feet (the MHMC requires 10 feet by 20 feet);

b. Bicycle Parking and Storage: Eliminate covered and long-term bicycle parking required by the MHMC (86 spaces required); and,

c. Design Standard No. 38- Pavement Design: The Residential Development Design Standards requires projects to incorporate decorative, pervious paving into paved and landscaped areas by 10 percent to reduce the visual impact of paved surfaces. The project has reduced decorative pavement material to 2 percent.

The density bonus and above-listed concessions were approved by the Morgan Hill City Council on April 21, 2021.

Separate from the concessions, the applicant has requested waivers and reductions to development standards that include a three-foot increase in building height to 38 feet (35 feet allowed), increase in Floor Area Ratio within the MU-F portion of the site, and reduced setback along Taylor Avenue (15.7 feet at its narrowest point, whereas 20 feet is required). Waivers are automatically allowed if they are necessary to achieve the full density allowed under the State Density Bonus Law.

The project site is located in the MU-F Zoning District within Block 3 of the Monterey Road Corridor for which a BLMP is generally required for all projects wanting to develop within the block. Furthermore, a Conditional Use Permit is required for a residential-only project within the MU-F zone. California SB 330 established the "Housing Crisis Act of 2019", effective January 1, 2020, making changes to the local approval process until January 1, 2025. The project, as proposed, is consistent with the General Plan and meets the base zoning standards; therefore, although a BLMP, PD master plan and a Conditional Use Permit for the site are required by the Morgan Hill Zoning Code, SB 330 supersedes these requirements.

As demonstrated throughout the IS, the proposed project would be consistent with General Plan policies and regulations adopted for the purpose of avoiding or mitigating environmental effects. Any environmental impact attributable to the proposed project could be reduced to less-than-significant levels with the implementation of mitigation included in this IS/MND. For example, with implementation of Mitigation Measure IV-1 and Mitigation Measure IV-2, the project would not conflict with any applicable policies, regulations, or ordinances related to the protection of migratory birds or ordinance-sized trees. As discussed under Section XIII, Noise, of this IS/MND, the project would comply with the noise level thresholds established in the City's General Plan and the MHMC during construction or operation with implementation of Mitigation Measure XII-1 and XII-2.

Based on the above, the proposed project would not cause a substantial adverse 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, and a ***less-than-significant*** impact would result.

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 does not identify any regionally or locally important mineral resources within the City of Morgan Hill. The *Santa Clara County General Plan* does identify mineral resources of importance; however, the project site is not in proximity to the quarries currently in operation. Consequently, the proposed project would not result in the loss of a known mineral resource that would be of value to the region nor would the project result in the loss of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, ***no impact*** to mineral resources would occur as a result of the proposed project.

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. The following section includes a discussion of noise standards and criteria applicable to various land uses, as well as potential traffic noise and non-transportation noise sources associated with the proposed project. The following terms are referenced in the sections below:

- Decibel (dB): A unit of sound energy intensity. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels. All references to decibels (dB) in this section will be A-weighted unless noted otherwise.
- Day-Night Average Level (L_{dn}): The average sound level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours.
- Equivalent Sound Level (L_{eq}): The average sound level over a given time-period.Maximum Sound Level (Lmax): The maximum sound level over a given time-period.
- Median Sound Level (L_{50}): The sound level exceeded 50 percent of the time over a given time-period.

Sensitive Receptors

Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the primary intended use of the land. Places where people live, sleep, recreate, worship, and study are considered to be sensitive to noise because intrusive noise can be disruptive to such activities. Within the project vicinity, the nearest sensitive receptors include the single-family residences located to the north, east, and west of the project site.

City Noise Standards and Criteria

Chapter 9, Safety, Service, and Infrastructure, of the City's General Plan contains the following policies that would be applicable to the proposed project:

SSI-8.1 Exterior Noise Level Standards. Require new development projects to be designed and constructed to meet acceptable exterior noise level standards (see Table SSI-1 [of the General Plan]), as follows:

- Apply a maximum exterior noise level of 60 dBA L_{dn} in residential areas where outdoor use is a major consideration (e.g., backyards in single-family housing developments and recreation areas in multi-family housing projects). Where the City determines that providing an L_{dn} of 60 dBA or lower cannot be achieved after the application of reasonable and feasible mitigation, an L_{dn} of 65 dBA may be permitted.
- Indoor noise levels should not exceed an L_{dn} of 45 dBA in new residential housing units.
- Noise levels in new residential development exposed to an exterior L_{dn} 60 dBA or greater should be limited to a maximum instantaneous noise level (e.g., trucks on busy streets, train warning whistles) in bedrooms of 50 dBA. Maximum instantaneous noise levels in all other habitable rooms should not exceed 55 dBA. The maximum outdoor noise level for new residences near the railroad shall be 70 dBA L_{dn}, recognizing that train noise is characterized by relatively few loud events.

SSI-8.2 Impact Evaluation. The impact of a proposed development project on existing land uses should be evaluated in terms of the potential for adverse community response based on significant increase in existing noise levels, regardless of compatibility guidelines.

SSI-8.5 Traffic Noise Level Standards. Consider noise level increases resulting from traffic associated with new projects significant if: a) the noise level increase is 5 dBA L_{dn} or greater, with a future noise level of less than 60 dBA L_{dn}, or b) the noise level increase is 3 dBA L_{dn} or greater, with a future noise level of 60 dBA L_{dn} or greater.

SSI-8.6 Stationary Noise Level Standards. Consider noise levels produced by stationary noise sources associated with new projects significant if they substantially exceed existing ambient noise levels.

SSI-8.7 Other Noise Sources. Consider noise levels produced by other noise sources (such as ballfields) significant if an acoustical study demonstrates they would substantially exceed ambient noise levels.

SSI-8.9 Site Planning and Design. Require attention to site planning and design techniques other than sound walls to reduce noise impacts, including: a) installing earth berms, b) increasing the distance between the noise source and the receiver, c) using non-sensitive structures such as parking lots, utility areas, and garages to shield noise-sensitive areas, d) orienting buildings to shield outdoor spaces from the noise source, and e) minimizing the noise at its source.

In addition to the policies listed above, Section 18.76.090 (Noise) of the MHMC contains maximum noise levels for non-transportation noise sources. The City's quantitative exterior noise standards are reproduced below in Table 9. According to City staff, such standards are interpreted as being hourly average noise level standards (L_{eq}).

Table 9
Noise Level Performance Standards

Receiving Land Use	Maximum Noise Level at Lot Line of Receiving Use
Industrial and Wholesale	70 dBA
Commercial	65 dBA
Residential or Public/Quasi Public	60 dBA

Notes:
- The planning commission may allow an additional 5 dBA noise level at the lot line if the maximum noise level shown above cannot be achieved with reasonable and feasible mitigation.
- Noise standards shown above do not apply to noise generated by vehicle traffic in the public right-of-way or from temporary construction, demolition, and vehicles that enter or leave the site of the noise-generating use (e.g., construction equipment, trains, trucks).

Source: City of Morgan Hill Municipal Code.

Furthermore, Section 8.28.040.D of the MHMC, limits construction activity noise as follows:

> "Construction activities" are defined as including but not limited to excavation, grading, paving, demolition, construction, alteration or repair of any building, site, street or highway, delivery or removal of construction material to a site, or movement of construction materials on a site. Construction activities are prohibited other than between the hours of seven a.m. and eight p.m., Monday through Friday and between the hours of nine a.m. to six p.m. on Saturday. Construction activities may not occur on Sundays or federal holidays. No third person, including but not limited to landowners, construction company owners, contractors, subcontractors, or employers, shall permit or allow any person working on construction activities which are under their ownership, control or direction to violate this provision. Construction activities may occur in the following cases without violation of this provision:
>
> a. In the event of urgent necessity in the interests of the public health and safety, and then only with a permit from the Chief Building Official, which permit may be granted for a period of not to exceed three days or less while the emergency continues and which permit may be renewed for periods of three days or less while the emergency continues.
>
> b. If the Chief Building Official determines that the public health and safety will not be impaired by the construction activities between the hours of eight p.m. and seven a.m., and that loss or inconvenience would result to any party in interest, the Chief Building Official may grant permission for such work to be done between the hours of eight p.m. and seven a.m. upon an application being made at the time the permit for the work is issued or during the progress of the work.
>
> c. The City Council finds that construction by the resident of a single residence does not have the same magnitude or frequency of noise impacts as a larger construction project. Therefore, the resident of

a single residence may perform construction activities on that home during the hours in this subsection, as well as on Sundays and federal holidays from nine a.m. to six p.m., provided that such activities are limited to the improvement or maintenance undertaken by the resident on a personal basis.

d. Public work projects are exempt from this section and the Public Works Director shall determine the hours of construction for public works projects.

Project Construction Noise

During construction of the proposed project, heavy-duty equipment would be used for demolition, grading, excavation, paving, and building construction, which would result in temporary noise level increases while in operation. Noise levels would vary depending on the type of equipment used, how the equipment is operated, and how well the equipment is maintained. In addition, noise exposure at any single point outside the project site would vary depending on the proximity of construction activities to that point. Standard construction equipment, such as graders, backhoes, loaders, and haul trucks would be used on-site.

Table 10 shows maximum noise levels associated with typical construction equipment. Based on the table, activities involved in typical construction would generate maximum noise levels up to 85 dB at a distance of 50 feet. As one increases the distance between equipment, or increases separation of areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of combining separate noise sources. The noise levels from a source decrease at a rate of approximately 6 dB per every doubling of distance from the noise source.

Table 10
Construction Equipment Noise

Type of Equipment	Maximum Level, dB at 50 feet
Backhoe	78
Compactor	83
Compressor (air)	78
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Pneumatic Tools	85

Source: Federal Highway Administration, Roadway Construction Noise Model User's Guide, January 2006.

The nearest noise-sensitive receptor is located less than 50 feet from the northern project site boundary. Thus, construction activities associated with the proposed project could exceed the levels shown in Table 10 at the receptor. However, the MHMC does not specify any short-term noise level limits. In addition, Chapter 8.28 of the MHMC prohibits construction activities between 8:00 PM and 7:00 AM, Monday through Friday, and between 6:00 PM and 9:00 AM on Saturdays. Construction activities may not occur on Sundays or federal holidays. Furthermore, construction activities related to the proposed project would include the use of sound-dampening equipment such as mufflers, air-inlet silencers, shrouds, shields, or other noise-reducing features where appropriate.

Enforcement of time restrictions specified in the Morgan Hill Noise Ordinance and the use of noise-dampened equipment would be required to ensure that the temporary or periodic increase in ambient noise levels in the project vicinity associated with construction of the proposed project would not be considered substantial. Otherwise, a potentially significant impact could occur related to construction noise.

Project Operational Noise

The primary noise source associated with operation of the proposed project would be traffic noise. Pursuant to General Plan Policy SSI-8.5, noise level increases resulting from traffic associated with new projects are considered significant if: a) the noise level increase is 5 dBA L_{dn} or greater, with a future noise level of less than 60 dB L_{dn}, or b) the noise level increase is 3 dB L_{dn} or greater, with a future noise level of 60 dB L_{dn} or greater. As shown in Table 9 below, existing on-site noise levels exceed 60 dB L_{dn}.

Noise at Proposed Development

Impacts of the environment on a project (as opposed to impacts of a project on the environment) are beyond the scope of required 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 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.)

Based on the above, for the purposes of the CEQA analysis, the relevant inquiry is not whether future residents at the proposed project will be exposed to preexisting environmental noise-related hazards, but instead whether project-generated noise will exacerbate the pre-existing conditions. However, an evaluation of estimated noise levels at the exterior of the proposed buildings is provided herein for informational purposes and to develop project conditions of approval.

A noise monitoring survey was conducted by Illingworth & Rodkin on October 5, 2020 and October 8, 2020 to quantify the existing noise environment on the project site at locations representative of proposed residential outdoor activity areas (see Appendix F).[32] Vehicle traffic was the predominant noise source affecting the site, with local onsite operations and Union Pacific Railroad (UPRR) operations also contributing to measured noise levels. The noise monitoring survey included one long-term continuous measurement (LT-1 in Figure 12) and one short-term 10-minute duration noise measurement (ST-1).

[32] Illingworth & Rodkin, Inc. *Monterey & Madrone, Morgan Hill, California – Assessment of Exterior Noise Levels at Common Outdoor Activity Areas.* October 20, 2020.

The Day/Night Average Noise Level (L_{dn}) calculated during the long-term continuous noise measurement at LT-1 was determined to range from 57 dBA to 58 dBA. In comparison, the short-term noise measurements taken at ST-1 between 9:50 AM and 10:00 AM on October 5 indicate that the small open space area proposed near the Clubhouse is exposed to a maximum noise level of 68 L_{max}, while the L_{dn} for this area is approximately 59-60 L_{dn}. Table 11 below summarizes the results of these measurements.

Table 11
Summary of Short-Term Noise Measurement Data

Noise Measurement Location	L_{max}	L_1	L_{10}	L_{50}	L_{90}	L_{eq}	L_{dn}
ST-1: Approx. 100 feet from Madrone Parkway centerline	68	67	58	48	44	55	59-60

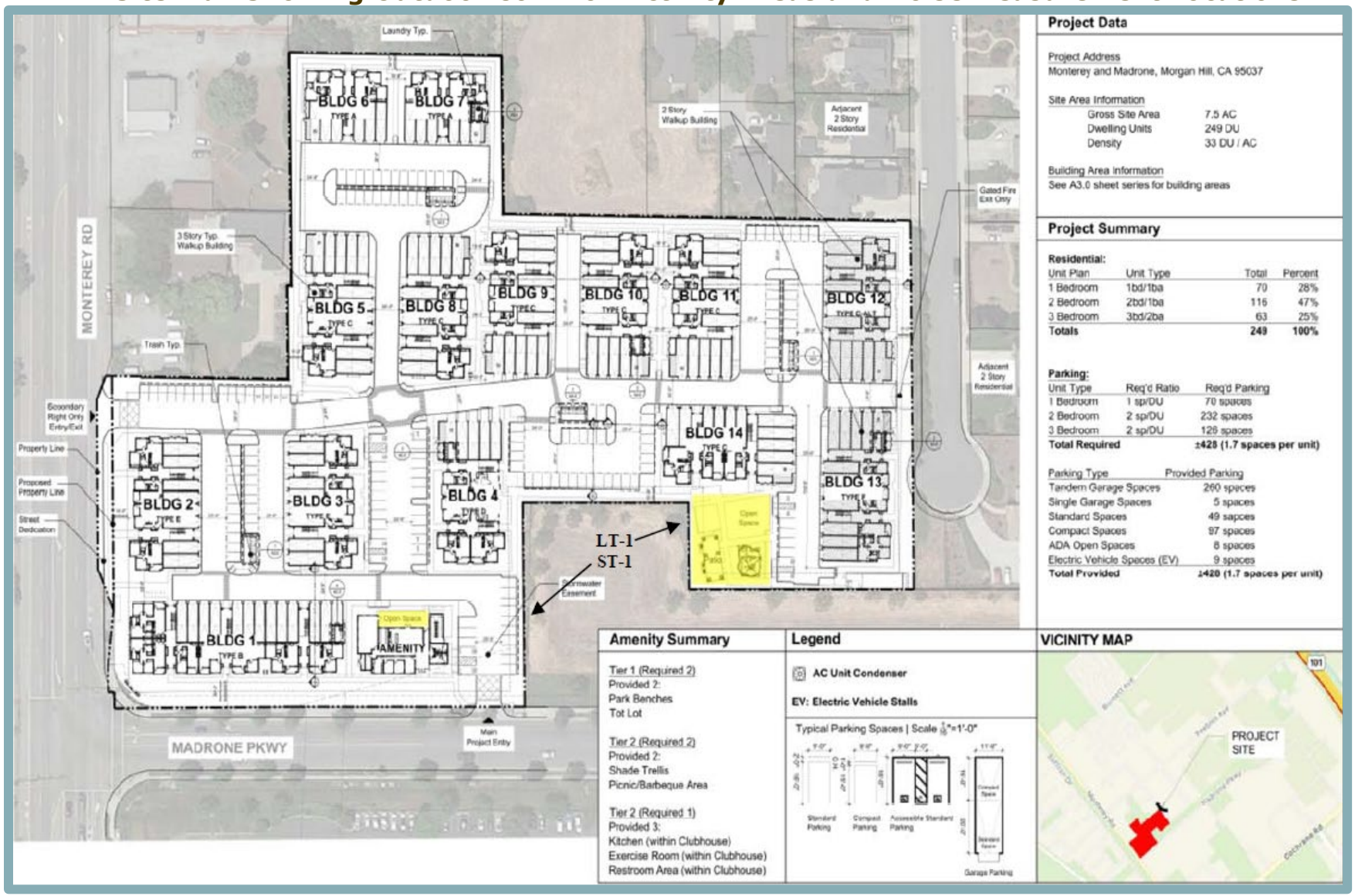
Note: The L_{dn} level at the short-term site is approximated by correlating data to the corresponding levels at the long-term site.

Source: Illingworth & Rodkin, Inc., 2020.

As noted previously, existing ambient noise levels at the project site are defined primarily by traffic noise and from trains traveling along nearby UPRR tracks. These noise sources would continue to define the future noise environment at the project site upon proposed project development. To determine future traffic noise levels expected along Monterey Road and Madrone Parkway, Year 2025 Cumulative Plus Project peak hour traffic volumes from the nearby Madrone Parkway Carpenters Training Center Project were compared to the existing traffic volumes. Year 2025 Cumulative traffic volumes along these roadway segments were calculated to result in traffic noise increases of 1 dBA L_{dn}. Noise due to conventional rail traffic along the UPRR was also conservatively assumed to increase by 1 dBA L_{dn}. Therefore, the future L_{dn} is expected to range from 60 dBA to 61 dBA at the small open space area proposed near the club terrace, and from 58 to 59 dBA at the patio, tot lot, and open space area proposed on the easternmost portion of the site near Building 13 and Building 14.

Based on the above, while exterior noise levels would not exceed the City's 60 dBA L_{dn} threshold at the patio, tot lot, or open space areas within the easternmost portion of the site, exterior noise levels are estimated to exceed the City's threshold by up to 1dBA at the small open space area proposed near the club terrace. However, the proposed project would include site planning and design techniques to reduce such impacts to less-than-significant levels. For example, the small outdoor use area proposed on the north side of the club terrace would be acoustically shielded on the western, southern, and eastern sides by the club terrace structure, which would be approximately 22 feet tall. In addition, noise emanating from Monterey Road, Madrone Parkway, and the UPRR would be primarily shielded by intervening project buildings, with resultant noise levels anticipated to be less than 60 dBA L_{dn}. As mentioned previously, exterior noise levels at the patio, tot lot, and open space area would remain below 60 dBA L_{dn} with implementation of the proposed project. The provision of 22 to 28-foot-tall buildings would further provide additional acoustical shielding of these areas from Monterey Road and the UPRR tracks.

Figure 12
Site Plan Showing Outdoor Common Activity Areas and Noise Measurement Locations



It should also be noted that any existing noise levels currently produced by the operation of the existing tow and salvage yard on the site would no longer occur with implementation of the proposed project, as such operations would cease upon project development.

Project-Generated Noise at Existing Receptors

The primary source of operational noise associated with implementation of the proposed project would be traffic noise generated by future residents and operation of mechanical equipment located on the rooftops of the proposed residences. As discussed in Chapter XVII, Transportation, traffic generated by the proposed project would result in approximately 1,355 daily trips. Pursuant to General Plan Policy SSI-8.5, noise level increases resulting from traffic associated with a new project would be considered significant if: a) the noise level increase is 5 dB L_{dn} or greater, with a future level of less than 60 dB L_{dn}, or b) the noise level increase is 3 dB L_{dn} or greater, with a future noise level of 60 dB L_{dn} or greater.

As noted in Table 4.11-7 of the General Plan EIR, Year 2035 ambient noise level conditions along Monterey Road between Burnett Avenue and Madrone Parkway are anticipated to increase by 1.7 dBA, from 72.4 dBA to 74.1 dBA, upon full buildout of the General Plan; therefore, the threshold of significance for noise level increases along this segment of Monterey Road attributable to proposed projects would be 3 dB. In comparison, Year 2035 ambient noise level conditions along Madrone Parkway between Monterey Road and Lightpost Way are anticipated to increase by 0.9 dBA, from 57.0 dBA to 57.9 dBA, upon full buildout of the General Plan, thus making 5 dBA the threshold of significance for noise level increases along this segment of Madrone Parkway.

With implementation of the applicable General Plan noise policies and relevant MHMC ordinances, the General Plan EIR concluded that buildout of the General Plan would result in a less-than-significant impact related to traffic noise. The proposed project is generally consistent with the General Plan buildout assumptions in the program EIR; however, the approved density bonus would allow more units at the site than was originally anticipated in the General Plan and evaluated in its associated program EIR. Specifically, the maximum number of units allowed pursuant to the site's current General Plan land use designation is 140, and the density bonus would allow an additional 109 units. Considering that full General Plan buildout would only increase noise levels along the subject roadway segments by 0.9 and 1.7 dBA, it can be reasonably concluded that the increase in vehicle trips associated with the additional 109 units would not be sufficient to generate a noise level increase of 3 dB L_{dn} or greater. Therefore, the proposed project is not expected to result in a noise level increase that would exceed the conservative 3 dB threshold of significance for noise level increases along surrounding roadways. Thus, the proposed project would not result in substantially increased traffic noise relative to what has been analyzed in the General Plan EIR and further analysis is not required.

The proposed project would include roof-top mechanical equipment, such as HVAC systems. Information regarding the type and size of the mechanical equipment units to be used in the project is not currently available. A review of project site plans indicates that HVAC equipment would be located on rooftops and partially shielded by parapet walls. Typical air conditioning units and heat pumps for multi-level residential buildings range from approximately 50 to 60 dBA L_{eq} at a distance of 50 feet.[33] The nearest residential

[33] Illingworth & Rodkin, Inc. *Peninsula Heights Noise and Vibration Assessment, San Mateo, California*. September 17, 2020.

property line would be approximately 25 feet from HVAC equipment on the roof of the northernmost proposed residential buildings (see Figure 13).

At a distance of 25 feet, the unmitigated HVAC equipment noise could exceed the City's non-transportation noise standard of 60 dBA L_{eq} at the residential lot line by up to an estimated 5 dBA. If parapet walls around the proposed HVAC equipment are constructed without any gaps or cracks and have a minimum surface weight of three pounds per square foot (such as one-inch-thick wood, ½-inch laminated glass, masonry block, concrete, or metal one-inch), the walls would be capable of providing a reduction in noise of approximately 10 to 15 dBA, thus, resulting in noise levels at the nearest residential lot line of approximately 41 to 56 dBA. Without parapet walls designed in accordance with the aforementioned standards, noise from HVAC equipment could exceed the daytime and nighttime hourly noise thresholds at adjacent uses, and a potentially significant impact could occur.

Conclusion

Based on the above, operation of the proposed roof-top mechanical equipment could result in the generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the City's General Plan and the MHMC. In addition, considering the potential for construction activities to conflict with standards established by Section 8.28.040 (Enumeration of unlawful noises) of the MHMC, the proposed project could also result in temporary increases in ambient noise levels in the project area. Thus, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

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

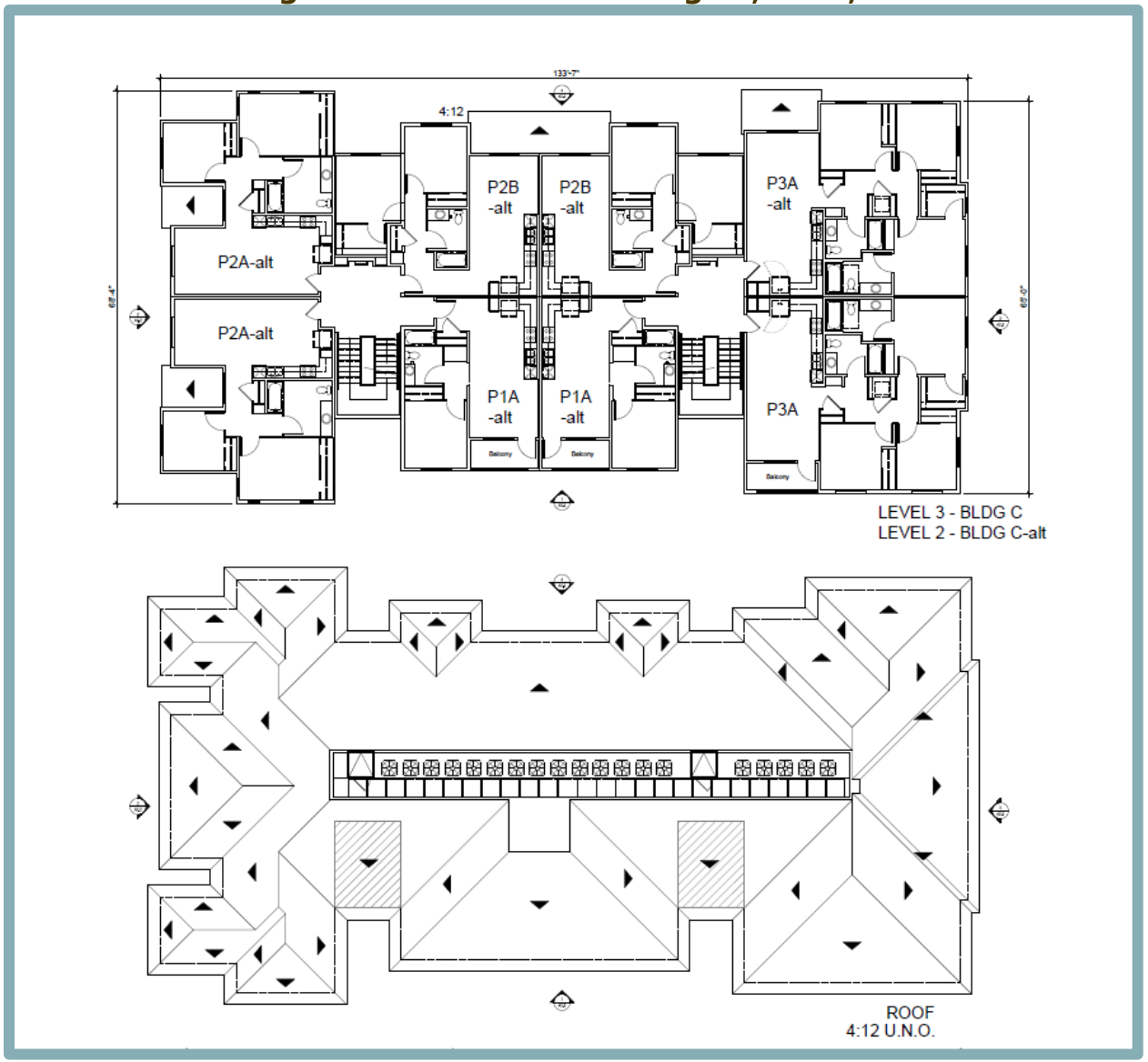
XIII-1 *Noise-generating construction activities associated with the proposed project shall only occur within the hours identified in MHMC Section 8.28.040(D). The above language shall be included on final project improvement plans, grading plans and building plans prior to approval by the City of Morgan Hill Development Services Department.*

XIII-2 *To the maximum extent practical, the following measures shall be implemented during project construction:*

- *All noise-producing project equipment and vehicles using internal-combustion engines shall be equipped with manufacturers-recommended mufflers and be maintained in good working condition;*
- *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 construction;*
- *Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible;*
- *Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors;*

- *Project area and site access road speed limits shall be established and enforced during the construction period; and*

Figure 13
Building and Roof Plan - Buildings 5, 8-12, and 14



- *Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels.*

The above requirements shall be included via notation on project grading plans, subject to review and approval by the Development Services Department.

XIII-3 *Mechanical equipment shall be selected and designed to reduce impacts on surrounding uses to meet the City's noise level requirements. A qualified acoustical consultant shall be retained to review mechanical noise as these systems are selected to determine specific noise reduction measures necessary, if any, to reduce noise to comply with the City's noise level requirements. Noise reduction measures could include, but are not limited to, selection of equipment that emits low noise levels and the installation of noise barriers, such as enclosures or parapet walls to block the line-of-sight between the noise source and the nearest receptors. The proposed mechanical equipment systems and noise reduction measures shall be included on project improvement plans and building plans, subject to review and approval by the City of Morgan Hill Development Services Department.*

b. Similar to noise, vibration involves a source, a transmission path, and a receiver. However, 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 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 is measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration 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 PPV.

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 12, which was developed by Caltrans, shows the vibration levels that would normally be required to result in damage to structures. As shown in the table, the threshold for architectural damage to structures is 0.20 in/sec PPV and continuous vibrations of 0.10 in/sec PPV, or greater, would likely cause annoyance to sensitive receptors.

The proposed project would only cause elevated vibration levels during construction, as the proposed project would not involve any uses or operations that would generate substantial groundborne vibration. Although noise and vibration associated with the construction phase of the project would add to the noise environment in the immediate project vicinity, construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Table 12
Effects of Vibration on People and Buildings

PPV		Human Reaction	Effect on Buildings
mm/sec	in/sec		
0.15 to 0.30	0.006 to 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 to 15	0.4 to 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: Caltrans. Transportation Related Earthborne Vibrations. TAV-02-01-R9601. February 20, 2002.

The primary vibration-generating activities associated with the proposed project would occur during grading, paving, placement of utilities, and construction of foundations. Table 13 shows the typical vibration levels produced by construction equipment at various distances. The most substantial source of groundborne vibrations associated with project construction would be the use of vibratory compactors. Use of vibratory compactors/rollers could potentially be required during construction of the proposed drive aisles.

Table 13
Vibration Levels for Various Construction Equipment

Type of Equipment	PPV at 25 feet (in/sec)	PPV at 50 feet (in/sec)
Large Bulldozer	0.089	0.029
Loaded Trucks	0.076	0.025
Small Bulldozer	0.003	0.000
Auger/drill Rigs	0.089	0.029
Jackhammer	0.035	0.011
Vibratory Hammer	0.070	0.023
Vibratory Compactor/roller	0.210	0.070

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.

Use of vibratory compactors/rollers could be required during construction of the proposed on-site drive aisle, portions of which would be located directly adjacent to an existing single-story structure used for daytime adult care near the western site boundary. Vibratory compactors/rollers could also be required for the development of parking spaces

adjacent to the northern property line, which would be in proximity to existing single-family residences. Because operation of vibratory compactors/rollers used for construction of drive aisles and parking spaces could operate at a distance of approximately 25 feet from existing structures, groundborne vibrations at the structures could potentially exceed 0.2 in/sec PPV.

It should be noted that paving activities associated with the proposed project would occur at different portions of the site at different times. Thus, groundborne vibration at the nearby structures would occur intermittently over a short period of time. Nonetheless, based on the above, the use of vibratory rollers during construction activities could expose people to or generate excessive groundborne vibration or groundborne noise levels, and impacts could be ***potentially significant***.

Mitigation Measure(s)

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

XIII-4 *During construction activities associated with the proposed project, any compaction required within 26 feet of existing structures adjacent to the project site shall be accomplished by using static drum rollers rather than vibratory compactors. The above requirement shall be included via notation on any grading plans approved for the project to the satisfaction of the City of Morgan Hill Development Services Department.*

c. The public airport nearest to the project site is the San Martin Airport, which is located approximately 7.1 miles south of the project site at 13030 Murphy Avenue. The project site is located well outside of the AIA identified in the South County Airport Comprehensive Land Use Plan.[34] In addition, the project site is not located within the vicinity of a private airstrip. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels associated with air traffic, and ***no impact*** would occur.

[34] Santa Clara County. *Comprehensive Land Use Plan, Santa Clara County, South County Airport.* Amended November 16, 2016.

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. The timing, type, and amount of residential growth in Morgan Hill has historically been controlled by the City's Residential Development Control System (RDCS) which was adopted for the purpose of managing growth in Morgan Hill. Measure S was approved by the Morgan Hill voters in 2016, extending the City's RDCS to 2035, and establishing a City population ceiling of 58,200. On January 1, 2020, the City's RDCS was suspended by SB 330 Housing Crisis Act of 2019 (Housing Accountability Act) for five years. The Housing Accountability Act prohibits a local agency from placing a cap on the number of housing units that can be approved or constructed either annually or for some other time period or limits the population of the jurisdiction.

The 2035 General Plan planned for a maximum of 140 units to be constructed on the project site pursuant to the site's General Plan land use designations of Residential Attached Low and Mixed-Use Flex. The proposed project would develop 249 units, which is 109 more units than what was originally anticipated for the site by the General Plan EIR. Using a persons per household rate of 3.09 as estimated by the ABAG 2035 Demographic Projections for the City of Morgan Hill, the proposed project could be expected to house approximately 770 residents, which is 337 more residents than what was anticipated for the site by the General Plan.

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/MND. As discussed in Section XV, Public Services, of this IS/MND, the project site is located in an urban area and is surrounded by existing development. Therefore, construction of new or expanded public services facilities would not be necessary to serve the proposed project. As discussed in Section XIX, Utilities and Service Systems, the proposed project would not include construction of new off-site utility infrastructure or expansion of existing utilities.

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. 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 does not contain existing residences. Therefore, the proposed project would not displace substantial numbers of existing people or housing and ***no impact*** would occur.

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-c,e. The City of Morgan Hill contracts with CAL FIRE (California Department of Forestry and Fire Protection) for fire protection services. Three CAL FIRE fire stations are located within the City boundaries: El Toro Station, located at 18300 Old Monterey Road; Dunne-Hill Station, located at 2100 Dunne Avenue; and the CAL FIRE station at 15670 Monterey Road. The nearest fire station (El Toro station) is located approximately one mile to the south of the site by way of Monterey Road. Although the City has not adopted response time standards or goals related to fire suppression, CAL FIRE is held to a seven minute, 59 second response time standard pursuant to the 911 Emergency Medical Services Provider Agreement between the City of Morgan Hill and the County of Santa Clara Emergency Medical Services Agency.[35]

The project site has been previously anticipated by the General Plan for residential and/or commercial development. The increase in demand associated with the proposed project would not necessitate new or physically altered facilities and, due to its proximity to the nearest fire station, the EMS response time standard of seven minutes, 59 seconds could be maintained. In addition, the proposed structures would be equipped with fire sprinklers and fire alarm systems. Such features would help to address fire situations within the site, which would reduce the demand for fire protection services from the project site.

The project site is also located within the Morgan Hill Police Department's normal patrol routes, and, thus, police response times would be comparable to nearby existing developments. Given that the project is consistent with the site's current General Plan land use and zoning designations, the majority of the proposed project's demand related to provision of new or physically altered fire and police protection facilities have been previously analyzed in the General Plan EIR. The General Plan EIR concluded that buildout of the City would have a less-than-significant impact related to the provision of such public services.

The Morgan Hill Unified School District (MHUSD) operates public education facilities that serve the project site and surrounding area. The City of Morgan Hill is served by eight elementary schools, two middle schools, two high schools, one continuation school, one K-8 home school program, and one community adult school. Utilizing the MHUSD student yield rate of 0.465 students per household, the total anticipated development potential for

[35] Dwight Good, Assistant Chief Cooperative Fire Protection, Morgan Hill Fire Department. Personal communication [phone] with Nick Pappani, Vice President, Raney Planning and Management, Inc. June 1, 2021.

the project site (249 residential units) could add approximately 116 new students to MHUSD schools.

The City collects development impact fees to help pay for public services that include public schools. 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.

With regard to other public facilities, such as libraries, the proposed project would not be anticipated to result in a substantial increase in demand for library services, or other public facilities, such that expanded facilities would be required. Future residents of the proposed project would have access to the 28,000-square foot Morgan Hill Library, which is operated by the Santa Clara County Library District. In addition, the General Plan EIR concluded that buildout of the City, including the project site, would have a less-than-significant impact related to libraries.

Based on the above, the project would have a ***less-than-significant*** impact with respect to creating adverse physical environmental impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, and schools.

d. The proposed project is anticipated to generate an estimated 770 additional residents (249 units X 3.09 persons per household = 770 residents) in the City of Morgan Hill.[36] As required by Section 3.56.030 of the MHMC, the City collects park impact fees to offset the demand for neighborhood parkland created by new housing developments. In addition, the proposed project would include multiple open space/common areas as an amenity for future residents. Amenities to be included within the common space areas would include, but not be limited to, a tot lot, dog park, a shaded pavilion/picnic area with barbecue stations, and several open space areas with park benches throughout the project site. An indoor club terrace would also be provided near the main project entrance and would include a fitness room, a computer room, a kitchen, and a clubroom. Given that the project applicant would be required to pay the applicable park impact fees in compliance with the MHMC, and the proposed project would provide a range of on-site recreational amenities, the project would have a ***less-than-significant*** impact with respect to creating adverse physical environmental impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for parks.

[36] City of Morgan Hill. *Housing Element* [Table 1-1]. Adopted February 18, 2015.

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,b. Considering the total of 249 residential units, the proposed project would generate approximately 770 additional residents (based on 3.09 persons per household) in the City of Morgan Hill.[37] Given the City's parkland goal of five acres per 1,000 residents, the proposed project would create the need for a minor amount of additional parkland (3.85 acres). Payment of the park impact fee, as required by Chapter 3.56 of the MHMC, would generate revenue to acquire necessary land to develop new parks or rehabilitate existing neighborhood parks and recreation facilities reasonably related to serve the proposed project. In addition, the proposed project would include multiple open space/common areas to provide amenities for future residents. Amenities to be included within the common space areas would include, but not be limited to, a tot lot, dog park, a shaded pavilion/picnic area with barbecue stations, and several open space areas with park benches throughout the project site. An indoor club terrace would also be provided near the main project entrance and would include a fitness room, a computer room, a kitchen, and a clubroom. As shown in Figure 7 of this IS/MND's Project Description, the proposed project would provide 68,917 square feet of common open space area, which would exceed the City's required amount of 49,200 square feet of common open space area. The provision of on-site recreational facilities would ensure that the proposed project would not 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.

Based on the above, a ***less-than-significant*** impact would occur with regard to recreational resources.

[37] According to the persons per household demographic projection for Morgan Hill for the year 2035 (see Table 1-1 of City of Morgan Hill Housing Element, adopted February 18, 2015.

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

The following discussion is based on the Trip Generation and Operations Analysis prepared for the proposed project by Hexagon Transportation Consultants, Inc. (see Appendix H).[38]

a. The proposed project would include the demolition of the existing on-site structures and redevelopment of the site with 249 residential units distributed throughout two, two-story buildings and 12, three-story buildings. Additionally, the proposed project includes off-site improvements to Monterey Road, Madrone Parkway, and Taylor Avenue. A Trip Generation and Operations Analysis (Appendix H) for the proposed project was prepared, which includes a discussion of the proposed project's potential impacts on transit, bicycle, and pedestrian facilities, which are discussed in further detail below. While a level of service (LOS) evaluation was also included in the Trip Generation and Operations Analysis, LOS analysis is not required as part of CEQA review for the reason described below. However, the LOS will be reviewed by the City in order to determine if the project should be conditioned to implement any transportation operation enhancements.

The law has changed with respect to how transportation-related impacts may be addressed under CEQA. Traditionally, lead agencies used LOS to assess the significance of such impacts, with greater levels of congestion considered to be more significant than lesser levels. Mitigation measures typically took the form of capacity-increasing improvements, which often had their own environmental impacts (e.g., to biological resources). Depending on circumstances, and an agency's tolerance for congestion (e.g., as reflected in its general plan), LOS D, E, or F often represented significant environmental effects. In 2013, however, the Legislature passed legislation with the intention of ultimately removing LOS in most instances as a basis for environmental analysis under CEQA. Enacted as part of SB 743 (2013), PRC Section 21099, subdivision (b)(1), directed the Governor's OPR to prepare, develop, and transmit to the Secretary of the Natural Resources Agency for certification and adoption proposed CEQA Guidelines addressing "criteria for determining the significance of transportation impacts of projects within transit priority areas. Those criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. In developing the criteria, [OPR] shall recommend potential metrics to measure transportation impacts that may include, but are not limited to, vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated. The office may also establish criteria for models used to analyze transportation

[38] Hexagon Transportation Consultants, Inc. *Trip Generation and Operations Analysis for the Proposed Monterey-Madrone Affordable Housing Development in Morgan Hill, California.* March 23, 2021.

impacts to ensure the models are accurate, reliable, and consistent with the intent of this section."

Subdivision (b)(2) of Section 21099 further provides that "[u]pon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to [CEQA], except in locations specifically identified in the guidelines, if any."

Pursuant to Senate Bill 743, the Natural Resources Agency promulgated CEQA Guidelines Section 15064.3 in late 2018. It became effective in early 2019. Subdivision (a) of that section provides that "[g]enerally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact."

Please refer to Question 'b' for a discussion of VMT.

Transit, Pedestrian, and Bicycle Facilities

The project site is served by VTA bus routes that run along Cochrane Road and Hale Avenue. Route 68 (Gilroy Transit Center to San Jose Diridon Transit Center) serves bus stops at the intersection of Hale Avenue and Tilton Avenue, which is approximately one-mile from the project site. Local Route 87 (Morgan Hill Civic Center to Burnett Avenue) serves bus stops at Peebles/Monterey, approximately 1,000 feet from the project site, and Cochrane Road/Cochrane Circle, approximately 0.5-mile from the project site. A typical mode split in Morgan Hill would be a three percent transit share. Assuming up to three percent transit mode share for the proposed project equates to no more than three transit riders during each of the peak hours.[39] Therefore, the transit ridership demands of the proposed project could be accommodated by the existing transit facilities.

Pedestrian generators in the project vicinity include commercial uses along Cochrane Road, Ann Sobrato High School, and the bus stops discussed above. In the vicinity of the project site, there are sidewalks along both sides of Madrone Parkway and pedestrian crosswalk facilities at the adjacent nearby signalized intersections. However, sidewalks do not exist along the southbound side of Monterey Road, and sidewalks along the northbound side of Monterey Road are not continuous. The proposed project would construct a sidewalk along its Monterey Road frontage, but there would be missing portions of sidewalk along northbound Monterey Road. Specifically, sidewalk areas would be missing between Cochrane Road and 580 feet south of Madrone Parkway; between the project site and Peebles Avenue; and between Peebles Avenue and 200 feet south of Burnett Avenue. The implementation of the missing sidewalk segments is beyond the responsibility of the proposed project because their construction would require work within, and possibly acquisition of, right-of-way that is not controlled by the project applicant. In addition, the proposed project would construct ADA-compliant ramps at the northeast

[39] Hexagon Transportation Consultants, Inc. *Trip Generation and Operations Analysis for the Proposed Monterey-Madrone Affordable Housing Development in Morgan Hill, California*. March 23, 2021.

corner of the Monterey/Madrone intersection, and an attached five-foot sidewalk would be included as part of improvements to the project's Taylor Avenue frontage.

In the project vicinity, there are bike lanes located along Monterey Road, Cochrane Road, and Burnett Avenue. The project is not expected to generate a significant amount of bicycle trips. Therefore, the demand generated by the proposed project could be accommodated by the existing bicycle facilities in the vicinity of the project site.

Based on the above, the proposed project would not have a substantially adverse impact related to conflicting with a program, plan, ordinance, or policy addressing roadway, transit, pedestrian, or bicycle facilities, and a ***less-than-significant*** impact would occur.

b. Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Pursuant to Section 15064.3, analysis of VMT attributable to a project is the most appropriate measure of transportation impacts. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Determination of impacts based on VMT have been required by law Statewide since July 1, 2020.

Pursuant to Section 15064.3(b)(3), a lead agency may analyze a project's VMT qualitatively based on the availability of transit, proximity to destinations, etc. Hexagon Transportation Consultants, Inc. prepared a VMT assessment for the proposed project (see Appendix I) to provide an assessment of the project's effect on VMT.[40] The City of Morgan Hill, at the time of the VMT report prepared for the proposed project, is undertaking a process of updating its General Plan policies to incorporate VMT methodologies and significance thresholds to be consistent with SB 743 but has not yet released draft thresholds. In the absence of an adopted or draft City policy with numeric thresholds, the VMT assessment relies on *The Technical Advisory on Evaluating Transportation Impacts in CEQA* published by the Governor's OPR.[41] The OPR recommendations include the screening thresholds criteria listed below:

- Office or residential projects not exceeding a level of 15 percent below existing VMT per capita may indicate a less-than-significant impact on VMT;
- Projects (including office, residential, retail, and mixed-use developments) proposed within half a mile of an existing major transit stop or within a quarter of an existing stop along a high-quality transit corridor may be presumed to have a less-than-significant impact;
- 100 percent affordable residential development in infill locations be presumed to have a less-than-significant impact on VMT; and
- Projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant impact.

The OPR Guidelines state that adding affordable housing to infill locations generally improves jobs-housing match, in turn shortening commutes and reducing VMT. In addition, the OPR guidelines state that in areas where existing jobs-housing match is closer to optimal, low-income housing nevertheless generates less VMT than market-rate

[40] Hexagon Transportation Consultants, Inc. *VMT Assessment for the Proposed Monterey-Madrone Residential Development in Morgan Hill, California*. April 15, 2021.

[41] Governor's Office of Planning and Research. *Technical Advisory on Evaluation Transportation Impacts in CEQA*. December 2018.

housing. Because the proposed project would be a 100 percent affordable residential development, Hexagon Transportation Consultants determined that the proposed project would have a less-than-significant impact on VMT. Furthermore, the pedestrian generators near the project vicinity would help support a reduced project VMT. Pedestrian generators in the project vicinity within 0.25- to one-mile radius include transit bus stops along Cochrane Road and Hale Avenue. These transit services would provide access to commercial uses (restaurant, retail, etc.) along Cochrane Road, Monterey Road, and Downtown Morgan Hill approximately 1.5 miles south of the site. In addition, many existing employment uses (light industrial and manufacturing) are within walking distance of the site.

As a result of the proposed project providing 100 percent affordable units and the proximity of pedestrian generators within a one-mile radius of the site, Hexagon Transportation Consultants determined that the proposed project would have a less-than-significant impact on VMT. Therefore, the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), and a ***less-than-significant*** impact would occur.

c,d. The proposed project is anticipated to be served by a full-access driveway on Madrone Parkway, located approximately 375 feet east of Monterey Road. The project also proposes a secondary driveway along Monterey Road, located approximately 200 feet north of Madrone Parkway.

Based on the project trip generation and trip assignment, it is estimated that a maximum of 65 inbound trips and 62 outbound trips would enter and exit the site during the peak hours. It is also estimated that three and eight trips, respectively, would make inbound left-turns into the project driveway along Madrone Parkway during the AM and PM peak hours, respectively. Although the projected inbound and outbound volumes at the project driveway along Madrone Parkway would be minimal, there may be operational conflicts with traffic flow along Madrone Parkway due to project traffic entering the driveway. To address the potential conflict, Hexagon Transportation Consultants recommends a dedicated eastbound left-turn lane on Madrone Parkway, as well as a right-turn channelization island to be installed at the Monterey Road driveway to restrict illegal left-turns which may cause potential traffic hazards.

Madrone Parkway has a posted speed limit of 35 mph. For a design speed of 35 mph, the recommended Department of Transportation (Caltrans) stopping sight distance is 250 feet. Based on the project site plan and field observations, vehicles exiting the project site driveway would have adequate sight distance in both directions on Madrone Parkway. In comparison, Monterey Road has a posted speed limit of 45 mph. For a design speed of 45 mph, the recommended Caltrans stopping sight distance is 360 feet. Based on the project site plan and field observations, vehicles exiting the project site driveway along Monterey Road would have sight distance of more than 360 feet in both directions. Although the proposed driveway along Monterey Road would be located only 250 feet north of Madrone Parkway, vehicles turning from Madrone Parkway onto northbound Monterey Road would be traveling at speeds significantly less than 45 mph; therefore, the proposed site driveway would have adequate sight distance along northbound Monterey Road.

Based on the above, the proposed driveways would provide adequate sight distance along Madrone Parkway and Monterey Road. However, without implementation of the recommendations provided by Hexagon Transportation Consultants, project traffic

entering the Madrone Parkway driveway has the potential to cause operational conflicts, and a ***potentially 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.

XVII-1 *The project applicant shall install a dedicated eastbound left-turn lane on Madrone Parkway to serve the project driveway. The turn lane shall be designed in accordance with City standards and included on project Improvement Plans to be reviewed and approved by the City Engineer.*

XVII-2 *The project applicant shall install a right-turn channelization island at the Monterey Road Driveway with the project site to restrict inbound and outbound left-turns at the driveway. Design of the channelization island shall be included on project Improvement Plans to be reviewed and approved by the City Engineer.*

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/MND, the existing on-site structures are not 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), and the site does not contain known resources that could be considered historic pursuant to the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. Ethnographic literature does not reference any Native American resources in or adjacent to the project area.

Based on the above, the proposed project is not expected to adversely impact tribal cultural resources. In addition, the project applicant would be required to comply with the City's standard conditions of approval related to cultural resource discovery, as discussed in Section V, Cultural Resources, of this IS/MND. Therefore, a ***less-than-significant*** impact to tribal cultural resources would occur.

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, natural gas, and telecommunications facilities that would serve the proposed project are included below.

Water

The City of Morgan Hill provides potable water service to its residential, commercial, industrial, and institutional customers within the City limits. The City's water system facilities include 14 groundwater wells, 10 potable water storage tanks, 10 booster stations, and over 160 miles of pressured pipes ranging from two to 14 inches in diameter. The City's water distribution system meets the needs of existing customers. The City has planned and constructed water projects in conjunction with new street construction in anticipation of future growth and water needs.

According to the City's Urban Water Management Plan (UWMP), the City's projected water supply far exceeds the water demand for normal, single-dry, and multiple-dry years until at least 2040.[42] For example, Table 7-2 of the UWMP indicates that, by 2035, Morgan Hill would have a water supply surplus of 62,934 acre-feet during a normal dry year. Under a 2035 multiple-dry year scenario, Morgan Hill would have a 50,339 acre-feet water surplus during the first dry year and a 31,169 acre-feet water surplus by the third dry year. Although the proposed project would develop 109 more units than what was anticipated for the site by the City, the proposed project would not increase water demand such that the construction of new water treatment facilities would be required. For instance, using the UWMP 2015 per capita water use rate of 123 gallons per capita per day, the proposed

[42] City of Morgan Hill. *2015 Urban Water Management Plan* [pg. 7-4 to 7-7]. 2016.

project would generate a water demand of approximately 94,710 gallons per day (770 residents x 123 gallons), which is only 41,451 more gallons per day than what was originally anticipated for the site (433 residents x 123 gallons). A water demand rate of 94,710 gallons per day, or 106 acre-feet per year, is well within the City's anticipated water supply for Year 2025 through Year 2040, even under the multiple-dry year scenario third-year water supply surplus of 31,169 acre-feet.

Given that the proposed project would not generate water demand substantially higher than the type and intensity of growth that was generally considered for the project site in the 2035 General Plan, and associated water use has been analyzed in the General Plan EIR, 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 City of Morgan Hill sewer collection system consists of approximately 160 miles of gravity sewers, over 3,000 manholes, nearly 3 miles of force mains, and 14 lift stations. The sewer lines range in size from four inches to 30 inches in diameter and the piping system includes 26 siphons. The City's collection system moves the City's wastewater south to the South County Regional Wastewater Authority (SCRWA) Wastewater Treatment Facility (WWTF) located in southern Gilroy. SCRWA is a joint powers authority formed by the cities of Morgan Hill and Gilroy to collectively treat the wastewater of both cities.[43] The WWTF is permitted to treat up to 8.5 million gallons per day of wastewater, average dry weather flow . The City of Morgan Hill has an allocation of 3.56 million gallons per day from the WWTF. The average dry weather flow from the City of Morgan Hill was approximately 2.7 million gallons per day in 2015.[44]

The proposed project would connect to existing sewer lines located within the site vicinity. Based on a per capita flow rate of 78 gallons per capita per day, the proposed project would generate approximately 60,060 gallons of wastewater per capita per day (770 residents X 78 gallons), which is well within the 3.56 million gallons per day treatment capacity of the WWTF allocated for the City of Morgan Hill.[45] In addition, because the General Plan EIR determined that the WWTF would be required to be expanded by Year 2022 in order to accommodate buildout of the General Plan, the SCRW is planning to fund, design, and construct expansion of the WWTF beyond its current wastewater treatment capacity of 8.5 million gallons per day. The General Plan EIR determined that, after expansion of the treatment plant, wastewater generated by General Plan buildout, including the project site, would not exceed the expanded permitted treatment capacity of the SCRWA WWTF facility. Therefore, the proposed project would not generate wastewater flows beyond the capacity of existing wastewater treatment facilities or planned future improvements to such facilities.

Stormwater

Issues related to stormwater infrastructure are discussed in Section X, Hydrology and Water Quality, of this IS/MND. As noted therein, the proposed project would not

---

43 City of Morgan Hill. *City Council Staff Report 2163, Accept Report Regarding Wastewater System Needs and Rate Study Schedule.* February 6, 2019.

44 City of Morgan Hill. *2035 General Plan Draft EIR*. January 2016.

45 City of Morgan Hill. *2035 General Plan Draft EIR*. [pg. 4.15-30]. January 2016.

significantly increase stormwater flows into the City's existing system. The final drainage system design for the project will be subject to review and approval by the City of Morgan Hill City Engineer to confirm that the proposed drainage system for the project is consistent with the City's Storm Drainage Master Plan and standard stormwater-related conditions of approval. 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, Natural Gas, and Telecommunications

The City prohibits the use of natural gas for new construction. Electricity would be provided by PG&E by way of existing electrical infrastructure in the project vicinity. Internet and telephone services would be provided by Frontier Communications, AT&T, Charter Communications, or a similar service provider operating within the City. In addition, as part of project development, the existing overhead utility lines along Monterey Road would be undergrounded.

The proposed 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 generate dry utilities or potable water demand or wastewater or stormwater treatment demand that would be considered substantially greater than the type and intensity of growth that was generally considered in the 2035 General Plan and analyzed in the General Plan EIR. In addition, the project is located within a developed urban area and would not require major expansion or extension of existing water, wastewater, electrical, or telecommunications facilities in the project area.

Therefore, the proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater, electric power, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Sufficient water supplies would be available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Furthermore, adequate wastewater capacity would be available to serve the project's projected demand in addition to the SCRWA's existing commitments. Thus, a ***less-than-significant*** impact would occur.

d,e. Recology South Valley provides solid waste and recycling services to the businesses and residents of the cities of Morgan Hill and Gilroy. Recology South Valley has contracted with the Salinas Valley Solid Waste Authority to dispose of municipal solid waste at Johnson Canyon Sanitary Landfill. According to the Landfill's proposed 2018 Solid Waste Facility (SWF) Permit, the Landfill has a maximum permitted tonnage limit of 1,574 tons per day, a design capacity of 13,834,328 cubic yards, and an estimated closure date of 2055.[46] For fiscal year 2019/2020, 224,979 tons of waste were disposed of at the Landfill.[47] The proposed project would not produce enough solid waste for the landfill to exceed

[46] California Department of Resources Recycling and Recovery (CalRecycle). Facility/Site Summary Details: Johnson Canyon Sanitary Landfill (27-AA-0005). Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2636?siteID=1971. Accessed May 2021.

[47] Salinas Valley Solid Waste Authority. *2019-20 Annual Report.* 2021.

capacity. Therefore, sufficient permitted capacity exists at the Johnson Canyon Sanitary Landfill to accommodate the proposed project's incremental increase in solid waste disposal needs.

The proposed residences would involve the generation of typical solid waste types and would not require specialized solid waste disposal needs. Furthermore, as required by CBC Section 4.408, the proposed project would be required to submit a Waste Management Plan to the City detailing on-site sorting of construction debris. Implementation of the Waste Management Plan would ensure that the proposed project meets established diversion requirements for reused or recycled construction waste. As such, the proposed project would comply with applicable federal, State, and local statutes and regulations related to solid waste. Therefore, the proposed project would have a ***less-than-significant*** impact related to solid waste.

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. As discussed in Section IX, Hazards and Hazardous Materials, of this IS/MND, the City's Wildland Urban Interface map indicates that the project site is not located in a High or Very High FHSZ.[48] The project would be required to comply with all applicable requirements of the California Fire Code, as adopted by Chapter 15.44 of the MHMC, including installation of fire sprinkler systems.

The proposed project would not conflict with the City's Emergency Operations Plan.[49] As noted in Section IX, roadway modifications to Madrone Parkway and Monterey Road would not interfere with potential evacuation or response routes used by emergency response teams; in fact, installation of a dedicated eastbound left-turn lane, as required by Mitigation Measure XVII-1, would reduce the potential for operational conflicts and traffic hazards to occur within this portion of the roadway. In addition, the project is not located on a substantial slope, and the project area does not include any existing features that would substantially increase fire risk for future residents, workers, or visitors. The undergrounding of utility lines along Monterey Road as part of the project would further reduce fire risks at the project site. Given that the project site is located within a developed urban area and is situated adjacent to existing roads, water lines, and other utilities, the project would not result in substantial fire risks related to installation or maintenance of such infrastructure. Lastly, as discussed in Section VII, Geology and Soils, and Section X, Hydrology and Water Quality, of this IS/MND, development of the proposed project would not expose people or structures to significant risks related to flooding or landslides.

Based on the above, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands, and a ***less-than-significant*** impact would occur.

[48] City of Morgan Hill. *City of Morgan Hill Wildland Urban Interface Map.* March 2009.
[49] City of Morgan Hill. *Emergency Operations Plan.* January 11, 2018.

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/MND, the proposed project would be required to implement mitigation measures to minimize potential impacts to nesting migratory birds and raptors protected by the MBTA. In addition, the site does not contain known historical or cultural resources. Although unlikely, the possibility exists that subsurface excavation of the site during grading and other construction activities could unearth deposits of cultural significance. However, this IS/MND explains how the MHMC requires standard measures for development projects that would ensure any impacts to such resources would be less than significant. Therefore, the proposed project's impact related to degradation of the quality of the environment, substantial reduction of habitat or plant and wildlife species, and elimination of important examples of the major periods of California history or prehistory would be ***less than significant.***

b. The proposed project, in conjunction with other development within the City of Morgan Hill, could incrementally contribute to cumulative impacts in the area. However, as demonstrated in this IS/MND, all potential environmental impacts that could occur as a result of project implementation would be reduced to a less-than-significant level with implementation of project-specific mitigation measures and compliance with applicable General Plan policies, MHMC standards, and other applicable local and State regulations. Therefore, when viewed in conjunction with other closely related past, present, or reasonably foreseeable future projects, development of the proposed project would not contribute to cumulative impacts in the City of Morgan Hill, and the project's contribution to the cumulative impact would be ***less than significant.***

c. The proposed project site would be developed in a generally urbanized and built-up area of the City of Morgan Hill. Development of the proposed project would not be expected to result in substantial adverse impacts to human beings, either directly or indirectly. The potential for substantial environmental effects on human beings is addressed within this IS/MND and all impacts have been identified as less-than-significant or less than

significant with the incorporation of mitigation measures. As such, a ***less-than-significant*** impact would result.

Appendix A

Air Quality and Greenhouse Gas Modeling Results

Madrone Apartments - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Madrone Apartments

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	249.00	Dwelling Unit	7.58	249,000.00	712

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	0	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2024
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 - CO2 intensity factor adjusted per PG&E's RPS projections.

Land Use - Lot acreage adjusted to match site plan.

Construction Phase - Phase timing adjusted per applicant-provided AQ Questionnaire.

Demolition -

Grading -

Vehicle Trips - Trip rate generation rate adjusted per project-specific traffic report.

Energy Use - No natural gas - per Morgan Hill regulations.

Mobile Land Use Mitigation -

Area Mitigation - No hearths would be installed, as noted on AQ Questionnaire.

Energy Mitigation - Consistent with 2019 CBSC, all electricity would be renewable.

Water Mitigation - Water conservation strategy applied to relfect compliance with 2019 CalGreen Code and MWELO.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	0.00	150.00
tblConstructionPhase	NumDays	20.00	480.00
tblConstructionPhase	NumDays	230.00	480.00
tblConstructionPhase	NumDays	20.00	5.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24NG	5,226.68	0.00
tblFleetMix	HHD	0.00	0.03
tblFleetMix	LDA	0.00	0.58
tblFleetMix	LDT1	0.00	0.04
tblFleetMix	LDT2	0.00	0.19
tblFleetMix	LHD1	0.00	0.02
tblFleetMix	LHD2	0.00	5.3240e-003
tblFleetMix	MCY	0.00	5.7930e-003
tblFleetMix	MDV	0.00	0.11
tblFleetMix	MH	0.00	7.3200e-004
tblFleetMix	MHD	0.00	0.02
tblFleetMix	OBUS	0.00	2.6490e-003
tblFleetMix	SBUS	0.00	8.9600e-004
tblFleetMix	UBUS	0.00	2.1340e-003
tblGrading	MaterialExported	0.00	2,000.00
tblGrading	MaterialExported	0.00	2,000.00
tblProjectCharacteristics	CH4IntensityFactor	0	0.033
tblProjectCharacteristics	CO2IntensityFactor	0	203.98
tblProjectCharacteristics	N2OIntensityFactor	0	0.004
tblProjectCharacteristics	PrecipitationFrequency	0	64
tblVehicleTrips	ST_TR	4.91	3.84
tblVehicleTrips	SU_TR	4.09	3.84
tblVehicleTrips	WD_TR	5.44	3.84

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.6207	1.8373	1.9260	4.1300e-003	0.2802	0.0863	0.3664	0.1161	0.0809	0.1970	0.0000	369.0064	369.0064	0.0631	0.0101	373.5904
2023	1.2541	2.2445	3.0158	6.4700e-003	0.2439	0.1022	0.3461	0.0654	0.0967	0.1621	0.0000	576.9183	576.9183	0.0801	0.0150	583.3896
2024	0.5128	0.8164	1.1527	2.4900e-003	0.0952	0.0348	0.1300	0.0255	0.0329	0.0585	0.0000	222.2204	222.2204	0.0305	5.6100e-003	224.6552
Maximum	**1.2541**	**2.2445**	**3.0158**	**6.4700e-003**	**0.2802**	**0.1022**	**0.3664**	**0.1161**	**0.0967**	**0.1970**	**0.0000**	**576.9183**	**576.9183**	**0.0801**	**0.0150**	**583.3896**

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	0.6207	1.8373	1.9260	4.1300e-003	0.2802	0.0863	0.3664	0.1161	0.0809	0.1970	0.0000	369.0061	369.0061	0.0631	0.0101	373.5901
2023	1.2541	2.2445	3.0158	6.4700e-003	0.2439	0.1022	0.3461	0.0654	0.0967	0.1621	0.0000	576.9179	576.9179	0.0801	0.0150	583.3892
2024	0.5128	0.8164	1.1527	2.4900e-003	0.0952	0.0348	0.1300	0.0255	0.0329	0.0585	0.0000	222.2203	222.2203	0.0305	5.6100e-003	224.6550
Maximum	**1.2541**	**2.2445**	**3.0158**	**6.4700e-003**	**0.2802**	**0.1022**	**0.3664**	**0.1161**	**0.0967**	**0.1970**	**0.0000**	**576.9179**	**576.9179**	**0.0801**	**0.0150**	**583.3892**

Madrone Apartments - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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)
1	**5-1-2022**	**7-31-2022**	0.8810	0.8810
2	**8-1-2022**	**10-31-2022**	0.9468	0.9468
3	**11-1-2022**	**1-31-2023**	0.9295	0.9295
4	**2-1-2023**	**4-30-2023**	0.8571	0.8571
5	**5-1-2023**	**7-31-2023**	0.8825	0.8825
6	**8-1-2023**	**10-31-2023**	0.8843	0.8843
7	**11-1-2023**	**1-31-2024**	0.8742	0.8742
8	**2-1-2024**	**4-30-2024**	0.8276	0.8276
9	**5-1-2024**	**7-31-2024**	0.1999	0.1999
		Highest	0.9468	0.9468

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	1.7778	0.0345	2.6392	1.6700e-003		0.1234	0.1234		0.1234	0.1234	11.3518	7.6828	19.0347	0.0211	7.4000e-004	19.7851
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	89.0764	89.0764	0.0144	1.7500e-003	89.9572
Mobile	0.2448	0.5851	2.7061	8.1800e-003	0.8191	6.5100e-003	0.8256	0.2194	6.0900e-003	0.2255	0.0000	772.8060	772.8060	0.0363	0.0445	786.9734
Waste						0.0000	0.0000		0.0000	0.0000	23.2506	0.0000	23.2506	1.3741	0.0000	57.6023
Water						0.0000	0.0000		0.0000	0.0000	5.1469	11.4343	16.5812	0.5305	0.0127	33.6299
Total	**2.0226**	**0.6196**	**5.3453**	**9.8500e-003**	**0.8191**	**0.1299**	**0.9490**	**0.2194**	**0.1294**	**0.3488**	**39.7493**	**880.9995**	**920.7488**	**1.9764**	**0.0597**	**987.9479**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.2033	0.0213	1.8481	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0201	3.0201	2.9000e-003	0.0000	3.0925
Energy	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
Mobile	0.2406	0.5567	2.5848	7.6300e-003	0.7626	6.1100e-003	0.7687	0.2042	5.7200e-003	0.2100	0.0000	721.5134	721.5134	0.0350	0.0421	734.9444
Waste						0.0000	0.0000		0.0000	0.0000	23.2506	0.0000	23.2506	1.3741	0.0000	57.6023
Water						0.0000	0.0000		0.0000	0.0000	4.1175	9.1474	13.2649	0.4244	0.0102	26.9039
Total	**1.4439**	**0.5780**	**4.4329**	**7.7300e-003**	**0.7626**	**0.0164**	**0.7789**	**0.2042**	**0.0160**	**0.2202**	**27.3681**	**733.6808**	**761.0490**	**1.8364**	**0.0523**	**822.5432**

	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	**28.61**	**6.72**	**17.07**	**21.52**	**6.90**	**87.41**	**17.92**	**6.90**	**87.67**	**36.87**	**31.15**	**16.72**	**17.34**	**7.08**	**12.40**	**16.74**

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	5/1/2022	5/27/2022	5	20	
2	Site Preparation	Site Preparation	5/28/2022	6/10/2022	5	10	
3	Grading	Grading	6/11/2022	7/8/2022	5	20	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	7/9/2022	7/15/2022	5	5	
5	Building Construction	Building Construction	7/16/2022	5/17/2024	5	480	
6	Architectural Coating	Architectural Coating	7/30/2022	5/31/2024	5	480	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 504,225; Residential Outdoor: 168,075; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	50.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	250.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	250.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	179.00	27.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	36.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-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					
Fugitive Dust					5.1400e-003	0.0000	5.1400e-003	7.8000e-004	0.0000	7.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**5.1400e-003**	**0.0124**	**0.0176**	**7.8000e-004**	**0.0116**	**0.0123**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated 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	1.2000e-004	4.3000e-003	9.2000e-004	2.0000e-005	4.2000e-004	4.0000e-005	4.6000e-004	1.2000e-004	4.0000e-005	1.5000e-004	0.0000	1.5671	1.5671	5.0000e-005	2.5000e-004	1.6424
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	4.1000e-004	3.0000e-004	3.5900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9533	0.9533	3.0000e-005	3.0000e-005	0.9622
Total	**5.3000e-004**	**4.6000e-003**	**4.5100e-003**	**3.0000e-005**	**1.6100e-003**	**5.0000e-005**	**1.6500e-003**	**4.4000e-004**	**5.0000e-005**	**4.7000e-004**	**0.0000**	**2.5204**	**2.5204**	**8.0000e-005**	**2.8000e-004**	**2.6046**

Mitigated Construction On-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					
Fugitive Dust					5.1400e-003	0.0000	5.1400e-003	7.8000e-004	0.0000	7.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**5.1400e-003**	**0.0124**	**0.0176**	**7.8000e-004**	**0.0116**	**0.0123**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

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	1.2000e-004	4.3000e-003	9.2000e-004	2.0000e-005	4.2000e-004	4.0000e-005	4.6000e-004	1.2000e-004	4.0000e-005	1.5000e-004	0.0000	1.5671	1.5671	5.0000e-005	2.5000e-004	1.6424
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	4.1000e-004	3.0000e-004	3.5900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9533	0.9533	3.0000e-005	3.0000e-005	0.9622
Total	**5.3000e-004**	**4.6000e-003**	**4.5100e-003**	**3.0000e-005**	**1.6100e-003**	**5.0000e-005**	**1.6500e-003**	**4.4000e-004**	**5.0000e-005**	**4.7000e-004**	**0.0000**	**2.5204**	**2.5204**	**8.0000e-005**	**2.8000e-004**	**2.6046**

3.3 Site Preparation - 2022

Unmitigated Construction On-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					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0903**	**8.0600e-003**	**0.0984**	**0.0497**	**7.4200e-003**	**0.0571**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated 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	5.8000e-004	0.0215	4.5800e-003	8.0000e-005	2.1100e-003	1.9000e-004	2.3100e-003	5.8000e-004	1.8000e-004	7.7000e-004	0.0000	7.8355	7.8355	2.6000e-004	1.2400e-003	8.2118
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	2.5000e-004	1.8000e-004	2.1500e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5720	0.5720	2.0000e-005	2.0000e-005	0.5773
Total	**8.3000e-004**	**0.0217**	**6.7300e-003**	**9.0000e-005**	**2.8200e-003**	**1.9000e-004**	**3.0300e-003**	**7.7000e-004**	**1.8000e-004**	**9.6000e-004**	**0.0000**	**8.4075**	**8.4075**	**2.8000e-004**	**1.2600e-003**	**8.7892**

Mitigated Construction On-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					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0903**	**8.0600e-003**	**0.0984**	**0.0497**	**7.4200e-003**	**0.0571**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

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	5.8000e-004	0.0215	4.5800e-003	8.0000e-005	2.1100e-003	1.9000e-004	2.3100e-003	5.8000e-004	1.8000e-004	7.7000e-004	0.0000	7.8355	7.8355	2.6000e-004	1.2400e-003	8.2118
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	2.5000e-004	1.8000e-004	2.1500e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5720	0.5720	2.0000e-005	2.0000e-005	0.5773
Total	**8.3000e-004**	**0.0217**	**6.7300e-003**	**9.0000e-005**	**2.8200e-003**	**1.9000e-004**	**3.0300e-003**	**7.7000e-004**	**1.8000e-004**	**9.6000e-004**	**0.0000**	**8.4075**	**8.4075**	**2.8000e-004**	**1.2600e-003**	**8.7892**

3.4 Grading - 2022

Unmitigated Construction On-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					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003	0.0000	26.0548	26.0548	8.4300e-003	0.0000	26.2654
Total	**0.0195**	**0.2086**	**0.1527**	**3.0000e-004**	**0.0655**	**9.4100e-003**	**0.0749**	**0.0337**	**8.6600e-003**	**0.0423**	**0.0000**	**26.0548**	**26.0548**	**8.4300e-003**	**0.0000**	**26.2654**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated 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	5.8000e-004	0.0215	4.5800e-003	8.0000e-005	2.1100e-003	1.9000e-004	2.3100e-003	5.8000e-004	1.8000e-004	7.7000e-004	0.0000	7.8355	7.8355	2.6000e-004	1.2400e-003	8.2118
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	4.1000e-004	3.0000e-004	3.5900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9533	0.9533	3.0000e-005	3.0000e-005	0.9622
Total	**9.9000e-004**	**0.0218**	**8.1700e-003**	**9.0000e-005**	**3.3000e-003**	**2.0000e-004**	**3.5000e-003**	**9.0000e-004**	**1.9000e-004**	**1.0900e-003**	**0.0000**	**8.7888**	**8.7888**	**2.9000e-004**	**1.2700e-003**	**9.1740**

Mitigated Construction On-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					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003	0.0000	26.0547	26.0547	8.4300e-003	0.0000	26.2654
Total	**0.0195**	**0.2086**	**0.1527**	**3.0000e-004**	**0.0655**	**9.4100e-003**	**0.0749**	**0.0337**	**8.6600e-003**	**0.0423**	**0.0000**	**26.0547**	**26.0547**	**8.4300e-003**	**0.0000**	**26.2654**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

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	5.8000e-004	0.0215	4.5800e-003	8.0000e-005	2.1100e-003	1.9000e-004	2.3100e-003	5.8000e-004	1.8000e-004	7.7000e-004	0.0000	7.8355	7.8355	2.6000e-004	1.2400e-003	8.2118
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	4.1000e-004	3.0000e-004	3.5900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9533	0.9533	3.0000e-005	3.0000e-005	0.9622
Total	**9.9000e-004**	**0.0218**	**8.1700e-003**	**9.0000e-005**	**3.3000e-003**	**2.0000e-004**	**3.5000e-003**	**9.0000e-004**	**1.9000e-004**	**1.0900e-003**	**0.0000**	**8.7888**	**8.7888**	**2.9000e-004**	**1.2700e-003**	**9.1740**

3.5 Paving - 2022

Unmitigated Construction On-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					
Off-Road	2.7600e-003	0.0278	0.0365	6.0000e-005		1.4200e-003	1.4200e-003		1.3100e-003	1.3100e-003	0.0000	5.0069	5.0069	1.6200e-003	0.0000	5.0474
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.7600e-003**	**0.0278**	**0.0365**	**6.0000e-005**		**1.4200e-003**	**1.4200e-003**		**1.3100e-003**	**1.3100e-003**	**0.0000**	**5.0069**	**5.0069**	**1.6200e-003**	**0.0000**	**5.0474**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Unmitigated 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	1.0000e-004	7.0000e-005	9.0000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2383	0.2383	1.0000e-005	1.0000e-005	0.2406
Total	**1.0000e-004**	**7.0000e-005**	**9.0000e-004**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2383**	**0.2383**	**1.0000e-005**	**1.0000e-005**	**0.2406**

Mitigated Construction On-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					
Off-Road	2.7600e-003	0.0278	0.0365	6.0000e-005		1.4200e-003	1.4200e-003		1.3100e-003	1.3100e-003	0.0000	5.0069	5.0069	1.6200e-003	0.0000	5.0474
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.7600e-003**	**0.0278**	**0.0365**	**6.0000e-005**		**1.4200e-003**	**1.4200e-003**		**1.3100e-003**	**1.3100e-003**	**0.0000**	**5.0069**	**5.0069**	**1.6200e-003**	**0.0000**	**5.0474**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

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	1.0000e-004	7.0000e-005	9.0000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2383	0.2383	1.0000e-005	1.0000e-005	0.2406
Total	**1.0000e-004**	**7.0000e-005**	**9.0000e-004**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2383**	**0.2383**	**1.0000e-005**	**1.0000e-005**	**0.2406**

3.6 Building Construction - 2022

Unmitigated Construction On-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					
Off-Road	0.1024	0.9369	0.9818	1.6200e-003		0.0485	0.0485		0.0457	0.0457	0.0000	139.0352	139.0352	0.0333	0.0000	139.8679
Total	**0.1024**	**0.9369**	**0.9818**	**1.6200e-003**		**0.0485**	**0.0485**		**0.0457**	**0.0457**	**0.0000**	**139.0352**	**139.0352**	**0.0333**	**0.0000**	**139.8679**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2022

Unmitigated 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	3.4700e-003	0.0905	0.0264	3.4000e-004	0.0106	9.3000e-004	0.0116	3.0700e-003	8.9000e-004	3.9700e-003	0.0000	33.3643	33.3643	7.3000e-004	4.9500e-003	34.8567
Worker	0.0295	0.0213	0.2569	7.4000e-004	0.0849	4.6000e-004	0.0853	0.0226	4.2000e-004	0.0230	0.0000	68.2542	68.2542	2.1200e-003	1.9700e-003	68.8940
Total	**0.0330**	**0.1118**	**0.2832**	**1.0800e-003**	**0.0955**	**1.3900e-003**	**0.0969**	**0.0257**	**1.3100e-003**	**0.0270**	**0.0000**	**101.6186**	**101.6186**	**2.8500e-003**	**6.9200e-003**	**103.7507**

Mitigated Construction On-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					
Off-Road	0.1024	0.9369	0.9818	1.6200e-003		0.0485	0.0485		0.0457	0.0457	0.0000	139.0350	139.0350	0.0333	0.0000	139.8677
Total	**0.1024**	**0.9369**	**0.9818**	**1.6200e-003**		**0.0485**	**0.0485**		**0.0457**	**0.0457**	**0.0000**	**139.0350**	**139.0350**	**0.0333**	**0.0000**	**139.8677**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2022

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	3.4700e-003	0.0905	0.0264	3.4000e-004	0.0106	9.3000e-004	0.0116	3.0700e-003	8.9000e-004	3.9700e-003	0.0000	33.3643	33.3643	7.3000e-004	4.9500e-003	34.8567
Worker	0.0295	0.0213	0.2569	7.4000e-004	0.0849	4.6000e-004	0.0853	0.0226	4.2000e-004	0.0230	0.0000	68.2542	68.2542	2.1200e-003	1.9700e-003	68.8940
Total	**0.0330**	**0.1118**	**0.2832**	**1.0800e-003**	**0.0955**	**1.3900e-003**	**0.0969**	**0.0257**	**1.3100e-003**	**0.0270**	**0.0000**	**101.6186**	**101.6186**	**2.8500e-003**	**6.9200e-003**	**103.7507**

3.6 Building Construction - 2023

Unmitigated Construction On-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					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3462**	**301.3462**	**0.0717**	**0.0000**	**303.1383**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2023

Unmitigated 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	3.7400e-003	0.1561	0.0488	7.1000e-004	0.0230	9.1000e-004	0.0239	6.6600e-003	8.7000e-004	7.5300e-003	0.0000	69.2858	69.2858	1.4100e-003	0.0103	72.3755
Worker	0.0596	0.0408	0.5161	1.5500e-003	0.1839	9.5000e-004	0.1848	0.0489	8.7000e-004	0.0498	0.0000	144.1109	144.1109	4.1500e-003	3.9500e-003	145.3928
Total	**0.0633**	**0.1968**	**0.5649**	**2.2600e-003**	**0.2069**	**1.8600e-003**	**0.2088**	**0.0556**	**1.7400e-003**	**0.0573**	**0.0000**	**213.3967**	**213.3967**	**5.5600e-003**	**0.0142**	**217.7683**

Mitigated Construction On-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					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3458**	**301.3458**	**0.0717**	**0.0000**	**303.1380**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2023

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	3.7400e-003	0.1561	0.0488	7.1000e-004	0.0230	9.1000e-004	0.0239	6.6600e-003	8.7000e-004	7.5300e-003	0.0000	69.2858	69.2858	1.4100e-003	0.0103	72.3755
Worker	0.0596	0.0408	0.5161	1.5500e-003	0.1839	9.5000e-004	0.1848	0.0489	8.7000e-004	0.0498	0.0000	144.1109	144.1109	4.1500e-003	3.9500e-003	145.3928
Total	**0.0633**	**0.1968**	**0.5649**	**2.2600e-003**	**0.2069**	**1.8600e-003**	**0.2088**	**0.0556**	**1.7400e-003**	**0.0573**	**0.0000**	**213.3967**	**213.3967**	**5.5600e-003**	**0.0142**	**217.7683**

3.6 Building Construction - 2024

Unmitigated Construction On-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					
Off-Road	0.0736	0.6722	0.8083	1.3500e-003		0.0307	0.0307		0.0288	0.0288	0.0000	115.9246	115.9246	0.0274	0.0000	116.6099
Total	**0.0736**	**0.6722**	**0.8083**	**1.3500e-003**		**0.0307**	**0.0307**		**0.0288**	**0.0288**	**0.0000**	**115.9246**	**115.9246**	**0.0274**	**0.0000**	**116.6099**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2024

Unmitigated 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	1.4000e-003	0.0601	0.0184	2.7000e-004	8.8600e-003	3.5000e-004	9.2100e-003	2.5600e-003	3.4000e-004	2.9000e-003	0.0000	26.2331	26.2331	5.4000e-004	3.8800e-003	27.4029
Worker	0.0214	0.0140	0.1854	5.8000e-004	0.0707	3.5000e-004	0.0711	0.0188	3.2000e-004	0.0191	0.0000	54.0602	54.0602	1.4500e-003	1.4200e-003	54.5186
Total	**0.0228**	**0.0741**	**0.2038**	**8.5000e-004**	**0.0796**	**7.0000e-004**	**0.0803**	**0.0214**	**6.6000e-004**	**0.0220**	**0.0000**	**80.2933**	**80.2933**	**1.9900e-003**	**5.3000e-003**	**81.9215**

Mitigated Construction On-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					
Off-Road	0.0736	0.6722	0.8083	1.3500e-003		0.0307	0.0307		0.0288	0.0288	0.0000	115.9244	115.9244	0.0274	0.0000	116.6097
Total	**0.0736**	**0.6722**	**0.8083**	**1.3500e-003**		**0.0307**	**0.0307**		**0.0288**	**0.0288**	**0.0000**	**115.9244**	**115.9244**	**0.0274**	**0.0000**	**116.6097**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2024

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	1.4000e-003	0.0601	0.0184	2.7000e-004	8.8600e-003	3.5000e-004	9.2100e-003	2.5600e-003	3.4000e-004	2.9000e-003	0.0000	26.2331	26.2331	5.4000e-004	3.8800e-003	27.4029
Worker	0.0214	0.0140	0.1854	5.8000e-004	0.0707	3.5000e-004	0.0711	0.0188	3.2000e-004	0.0191	0.0000	54.0602	54.0602	1.4500e-003	1.4200e-003	54.5186
Total	**0.0228**	**0.0741**	**0.2038**	**8.5000e-004**	**0.0796**	**7.0000e-004**	**0.0803**	**0.0214**	**6.6000e-004**	**0.0220**	**0.0000**	**80.2933**	**80.2933**	**1.9900e-003**	**5.3000e-003**	**81.9215**

3.7 Architectural Coating - 2022

Unmitigated Construction On-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					
Archit. Coating	0.4017					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0113	0.0775	0.0998	1.6000e-004		4.4900e-003	4.4900e-003		4.4900e-003	4.4900e-003	0.0000	14.0429	14.0429	9.1000e-004	0.0000	14.0658
Total	**0.4129**	**0.0775**	**0.0998**	**1.6000e-004**		**4.4900e-003**	**4.4900e-003**		**4.4900e-003**	**4.4900e-003**	**0.0000**	**14.0429**	**14.0429**	**9.1000e-004**	**0.0000**	**14.0658**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2022

Unmitigated 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	5.4400e-003	3.9200e-003	0.0474	1.4000e-004	0.0157	8.0000e-005	0.0157	4.1600e-003	8.0000e-005	4.2400e-003	0.0000	12.5832	12.5832	3.9000e-004	3.6000e-004	12.7011
Total	**5.4400e-003**	**3.9200e-003**	**0.0474**	**1.4000e-004**	**0.0157**	**8.0000e-005**	**0.0157**	**4.1600e-003**	**8.0000e-005**	**4.2400e-003**	**0.0000**	**12.5832**	**12.5832**	**3.9000e-004**	**3.6000e-004**	**12.7011**

Mitigated Construction On-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					
Archit. Coating	0.4017					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0113	0.0775	0.0998	1.6000e-004		4.4900e-003	4.4900e-003		4.4900e-003	4.4900e-003	0.0000	14.0429	14.0429	9.1000e-004	0.0000	14.0657
Total	**0.4129**	**0.0775**	**0.0998**	**1.6000e-004**		**4.4900e-003**	**4.4900e-003**		**4.4900e-003**	**4.4900e-003**	**0.0000**	**14.0429**	**14.0429**	**9.1000e-004**	**0.0000**	**14.0657**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2022

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	5.4400e-003	3.9200e-003	0.0474	1.4000e-004	0.0157	8.0000e-005	0.0157	4.1600e-003	8.0000e-005	4.2400e-003	0.0000	12.5832	12.5832	3.9000e-004	3.6000e-004	12.7011
Total	**5.4400e-003**	**3.9200e-003**	**0.0474**	**1.4000e-004**	**0.0157**	**8.0000e-005**	**0.0157**	**4.1600e-003**	**8.0000e-005**	**4.2400e-003**	**0.0000**	**12.5832**	**12.5832**	**3.9000e-004**	**3.6000e-004**	**12.7011**

3.7 Architectural Coating - 2023

Unmitigated Construction On-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					
Archit. Coating	0.9494					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	**0.9744**	**0.1694**	**0.2355**	**3.9000e-004**		**9.2100e-003**	**9.2100e-003**		**9.2100e-003**	**9.2100e-003**	**0.0000**	**33.1923**	**33.1923**	**1.9900e-003**	**0.0000**	**33.2419**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated 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	0.0120	8.2000e-003	0.1038	3.1000e-004	0.0370	1.9000e-004	0.0372	9.8400e-003	1.8000e-004	0.0100	0.0000	28.9832	28.9832	8.3000e-004	8.0000e-004	29.2410
Total	**0.0120**	**8.2000e-003**	**0.1038**	**3.1000e-004**	**0.0370**	**1.9000e-004**	**0.0372**	**9.8400e-003**	**1.8000e-004**	**0.0100**	**0.0000**	**28.9832**	**28.9832**	**8.3000e-004**	**8.0000e-004**	**29.2410**

Mitigated Construction On-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					
Archit. Coating	0.9494					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2354	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	**0.9744**	**0.1694**	**0.2354**	**3.9000e-004**		**9.2100e-003**	**9.2100e-003**		**9.2100e-003**	**9.2100e-003**	**0.0000**	**33.1923**	**33.1923**	**1.9900e-003**	**0.0000**	**33.2419**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

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	0.0120	8.2000e-003	0.1038	3.1000e-004	0.0370	1.9000e-004	0.0372	9.8400e-003	1.8000e-004	0.0100	0.0000	28.9832	28.9832	8.3000e-004	8.0000e-004	29.2410
Total	**0.0120**	**8.2000e-003**	**0.1038**	**3.1000e-004**	**0.0370**	**1.9000e-004**	**0.0372**	**9.8400e-003**	**1.8000e-004**	**0.0100**	**0.0000**	**28.9832**	**28.9832**	**8.3000e-004**	**8.0000e-004**	**29.2410**

3.7 Architectural Coating - 2024

Unmitigated Construction On-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					
Archit. Coating	0.4017					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.9400e-003	0.0670	0.0996	1.6000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	14.0429	14.0429	7.9000e-004	0.0000	14.0627
Total	**0.4116**	**0.0670**	**0.0996**	**1.6000e-004**		**3.3500e-003**	**3.3500e-003**		**3.3500e-003**	**3.3500e-003**	**0.0000**	**14.0429**	**14.0429**	**7.9000e-004**	**0.0000**	**14.0627**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Unmitigated 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	4.7400e-003	3.1000e-003	0.0410	1.3000e-004	0.0157	8.0000e-005	0.0157	4.1600e-003	7.0000e-005	4.2300e-003	0.0000	11.9597	11.9597	3.2000e-004	3.1000e-004	12.0611
Total	**4.7400e-003**	**3.1000e-003**	**0.0410**	**1.3000e-004**	**0.0157**	**8.0000e-005**	**0.0157**	**4.1600e-003**	**7.0000e-005**	**4.2300e-003**	**0.0000**	**11.9597**	**11.9597**	**3.2000e-004**	**3.1000e-004**	**12.0611**

Mitigated Construction On-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					
Archit. Coating	0.4017					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.9400e-003	0.0670	0.0996	1.6000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	14.0429	14.0429	7.9000e-004	0.0000	14.0627
Total	**0.4116**	**0.0670**	**0.0996**	**1.6000e-004**		**3.3500e-003**	**3.3500e-003**		**3.3500e-003**	**3.3500e-003**	**0.0000**	**14.0429**	**14.0429**	**7.9000e-004**	**0.0000**	**14.0627**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

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	4.7400e-003	3.1000e-003	0.0410	1.3000e-004	0.0157	8.0000e-005	0.0157	4.1600e-003	7.0000e-005	4.2300e-003	0.0000	11.9597	11.9597	3.2000e-004	3.1000e-004	12.0611
Total	**4.7400e-003**	**3.1000e-003**	**0.0410**	**1.3000e-004**	**0.0157**	**8.0000e-005**	**0.0157**	**4.1600e-003**	**7.0000e-005**	**4.2300e-003**	**0.0000**	**11.9597**	**11.9597**	**3.2000e-004**	**3.1000e-004**	**12.0611**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.2406	0.5567	2.5848	7.6300e-003	0.7626	6.1100e-003	0.7687	0.2042	5.7200e-003	0.2100	0.0000	721.5134	721.5134	0.0350	0.0421	734.9444
Unmitigated	0.2448	0.5851	2.7061	8.1800e-003	0.8191	6.5100e-003	0.8256	0.2194	6.0900e-003	0.2255	0.0000	772.8060	772.8060	0.0363	0.0445	786.9734

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	956.16	956.16	956.16	2,208,354	2,055,978
Total	956.16	956.16	956.16	2,208,354	2,055,978

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
Apartments Mid Rise	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
Apartments Mid Rise	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732

5.0 Energy Detail

Historical Energy Use: N

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	89.0764	89.0764	0.0144	1.7500e-003	89.9572
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

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					
Apartments Mid Rise	0	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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

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					
Apartments Mid Rise	0	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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	962741	89.0764	0.0144	1.7500e-003	89.9572
Total		**89.0764**	**0.0144**	**1.7500e-003**	**89.9572**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	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	1.2033	0.0213	1.8481	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0201	3.0201	2.9000e-003	0.0000	3.0925
Unmitigated	1.7778	0.0345	2.6392	1.6700e-003		0.1234	0.1234		0.1234	0.1234	11.3518	7.6828	19.0347	0.0211	7.4000e-004	19.7851

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.1753					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9725					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.5745	0.0132	0.7911	1.5700e-003		0.1131	0.1131		0.1131	0.1131	11.3518	4.6628	16.0146	0.0182	7.4000e-004	16.6925
Landscaping	0.0556	0.0213	1.8481	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0201	3.0201	2.9000e-003	0.0000	3.0925
Total	**1.7778**	**0.0345**	**2.6392**	**1.6700e-003**		**0.1234**	**0.1234**		**0.1234**	**0.1234**	**11.3518**	**7.6828**	**19.0347**	**0.0211**	**7.4000e-004**	**19.7851**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.1753					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9725					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0556	0.0213	1.8481	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0201	3.0201	2.9000e-003	0.0000	3.0925
Total	**1.2033**	**0.0213**	**1.8481**	**1.0000e-004**		**0.0102**	**0.0102**		**0.0102**	**0.0102**	**0.0000**	**3.0201**	**3.0201**	**2.9000e-003**	**0.0000**	**3.0925**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	13.2649	0.4244	0.0102	26.9039
Unmitigated	16.5812	0.5305	0.0127	33.6299

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	16.2234 / 10.2278	16.5812	0.5305	0.0127	33.6299
Total		**16.5812**	**0.5305**	**0.0127**	**33.6299**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	12.9787 / 8.18221	13.2649	0.4244	0.0102	26.9039
Total		**13.2649**	**0.4244**	**0.0102**	**26.9039**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	23.2506	1.3741	0.0000	57.6023
Unmitigated	23.2506	1.3741	0.0000	57.6023

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	114.54	23.2506	1.3741	0.0000	57.6023
Total		**23.2506**	**1.3741**	**0.0000**	**57.6023**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	114.54	23.2506	1.3741	0.0000	57.6023
Total		**23.2506**	**1.3741**	**0.0000**	**57.6023**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Madrone Apartments - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Madrone Apartments

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	249.00	Dwelling Unit	7.58	249,000.00	712

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	0	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2024
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 - CO2 intensity factor adjusted per PG&E's RPS projections.

Land Use - Lot acreage adjusted to match site plan.

Construction Phase - Phase timing adjusted per applicant-provided AQ Questionnaire.

Demolition -

Grading -

Vehicle Trips - Trip rate generation rate adjusted per project-specific traffic report.

Energy Use - No natural gas - per Morgan Hill regulations.

Mobile Land Use Mitigation -

Area Mitigation - No hearths would be installed, as noted on AQ Questionnaire.

Energy Mitigation - Consistent with 2019 CBSC, all electricity would be renewable.

Water Mitigation - Water conservation strategy applied to relfect compliance with 2019 CalGreen Code and MWELO.

Madrone Apartments - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	0.00	150.00
tblConstructionPhase	NumDays	20.00	480.00
tblConstructionPhase	NumDays	230.00	480.00
tblConstructionPhase	NumDays	20.00	5.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24NG	5,226.68	0.00
tblFleetMix	HHD	0.00	0.03
tblFleetMix	LDA	0.00	0.58
tblFleetMix	LDT1	0.00	0.04
tblFleetMix	LDT2	0.00	0.19
tblFleetMix	LHD1	0.00	0.02
tblFleetMix	LHD2	0.00	5.3240e-003
tblFleetMix	MCY	0.00	5.7930e-003
tblFleetMix	MDV	0.00	0.11
tblFleetMix	MH	0.00	7.3200e-004
tblFleetMix	MHD	0.00	0.02
tblFleetMix	OBUS	0.00	2.6490e-003
tblFleetMix	SBUS	0.00	8.9600e-004
tblFleetMix	UBUS	0.00	2.1340e-003
tblGrading	MaterialExported	0.00	2,000.00
tblGrading	MaterialExported	0.00	2,000.00
tblProjectCharacteristics	CH4IntensityFactor	0	0.033
tblProjectCharacteristics	CO2IntensityFactor	0	203.98
tblProjectCharacteristics	N2OIntensityFactor	0	0.004
tblProjectCharacteristics	PrecipitationFrequency	0	64
tblVehicleTrips	ST_TR	4.91	3.84
tblVehicleTrips	SU_TR	4.09	3.84
tblVehicleTrips	WD_TR	5.44	3.84

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2022	9.8979	37.2654	24.1677	0.0552	18.6514	1.6519	20.3033	10.0897	1.5212	11.6109	0.0000	5,547.9182	5,547.9182	1.2528	0.2769	5,661.7592
2023	9.6787	17.1800	23.5646	0.0507	1.9490	0.7863	2.7354	0.5211	0.7440	1.2651	0.0000	4,990.8194	4,990.8194	0.6762	0.1240	5,044.6692
2024	9.5275	16.1194	23.1291	0.0501	1.9490	0.6896	2.6387	0.5211	0.6523	1.1734	0.0000	4,943.2708	4,943.2708	0.6679	0.1201	4,995.7544
Maximum	**9.8979**	**37.2654**	**24.1677**	**0.0552**	**18.6514**	**1.6519**	**20.3033**	**10.0897**	**1.5212**	**11.6109**	**0.0000**	**5,547.9182**	**5,547.9182**	**1.2528**	**0.2769**	**5,661.7592**

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	lb/day										lb/day					
2022	9.8979	37.2654	24.1677	0.0552	18.6514	1.6519	20.3033	10.0897	1.5212	11.6109	0.0000	5,547.9182	5,547.9182	1.2528	0.2769	5,661.7592
2023	9.6787	17.1800	23.5646	0.0507	1.9490	0.7863	2.7354	0.5211	0.7440	1.2651	0.0000	4,990.8194	4,990.8194	0.6762	0.1240	5,044.6692
2024	9.5275	16.1194	23.1291	0.0501	1.9490	0.6896	2.6387	0.5211	0.6523	1.1734	0.0000	4,943.2708	4,943.2708	0.6679	0.1201	4,995.7544
Maximum	**9.8979**	**37.2654**	**24.1677**	**0.0552**	**18.6514**	**1.6519**	**20.3033**	**10.0897**	**1.5212**	**11.6109**	**0.0000**	**5,547.9182**	**5,547.9182**	**1.2528**	**0.2769**	**5,661.7592**

Madrone Apartments - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Area	109.3102	2.5005	155.8298	0.2617		19.3210	19.3210		19.3210	19.3210	2,084.3407	959.7542	3,044.0949	2.8878	0.1473	3,160.1934
Energy	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
Mobile	1.5163	3.0239	15.0733	0.0472	4.6764	0.0358	4.7122	1.2485	0.0335	1.2820		4,914.3451	4,914.3451	0.2057	0.2606	4,997.1312
Total	**110.8266**	**5.5244**	**170.9031**	**0.3089**	**4.6764**	**19.3568**	**24.0332**	**1.2485**	**19.3545**	**20.6030**	**2,084.3407**	**5,874.0993**	**7,958.4400**	**3.0935**	**0.4079**	**8,157.3246**

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	lb/day										lb/day					
Area	6.9065	0.2366	20.5342	1.0800e-003		0.1138	0.1138		0.1138	0.1138	0.0000	36.9895	36.9895	0.0355	0.0000	37.8768
Energy	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
Mobile	1.4931	2.8766	14.3194	0.0441	4.3537	0.0336	4.3873	1.1624	0.0314	1.1938		4,587.3869	4,587.3869	0.1978	0.2465	4,665.8006
Total	**8.3996**	**3.1132**	**34.8536**	**0.0451**	**4.3537**	**0.1474**	**4.5011**	**1.1624**	**0.1452**	**1.3076**	**0.0000**	**4,624.3764**	**4,624.3764**	**0.2333**	**0.2465**	**4,703.6774**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	92.42	43.65	79.61	85.39	6.90	99.24	81.27	6.90	99.25	93.65	100.00	21.28	41.89	92.46	39.56	42.34

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	5/1/2022	5/27/2022	5	20	
2	Site Preparation	Site Preparation	5/28/2022	6/10/2022	5	10	
3	Grading	Grading	6/11/2022	7/8/2022	5	20	
4	Paving	Paving	7/9/2022	7/15/2022	5	5	
5	Building Construction	Building Construction	7/16/2022	5/17/2024	5	480	
6	Architectural Coating	Architectural Coating	7/30/2022	5/31/2024	5	480	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 504,225; Residential Outdoor: 168,075; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	50.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	250.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	250.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	179.00	27.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	36.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-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	lb/day										lb/day					
Fugitive Dust					0.5136	0.0000	0.5136	0.0778	0.0000	0.0778			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.5136**	**1.2427**	**1.7562**	**0.0778**	**1.1553**	**1.2330**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Unmitigated 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	lb/day										lb/day					
Hauling	0.0118	0.4150	0.0910	1.5900e-003	0.0437	3.8600e-003	0.0476	0.0120	3.6900e-003	0.0157		172.7205	172.7205	5.7000e-003	0.0274	181.0150
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
Worker	0.0436	0.0263	0.3878	1.1000e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		112.2095	112.2095	3.0600e-003	2.8000e-003	113.1197
Total	**0.0554**	**0.4414**	**0.4787**	**2.6900e-003**	**0.1669**	**4.5000e-003**	**0.1715**	**0.0447**	**4.2800e-003**	**0.0490**		**284.9300**	**284.9300**	**8.7600e-003**	**0.0302**	**294.1347**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-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	lb/day										lb/day					
Fugitive Dust					0.5136	0.0000	0.5136	0.0778	0.0000	0.0778			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.5136**	**1.2427**	**1.7562**	**0.0778**	**1.1553**	**1.2330**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	lb/day										lb/day					
Hauling	0.0118	0.4150	0.0910	1.5900e-003	0.0437	3.8600e-003	0.0476	0.0120	3.6900e-003	0.0157		172.7205	172.7205	5.7000e-003	0.0274	181.0150
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
Worker	0.0436	0.0263	0.3878	1.1000e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		112.2095	112.2095	3.0600e-003	2.8000e-003	113.1197
Total	**0.0554**	**0.4414**	**0.4787**	**2.6900e-003**	**0.1669**	**4.5000e-003**	**0.1715**	**0.0447**	**4.2800e-003**	**0.0490**		**284.9300**	**284.9300**	**8.7600e-003**	**0.0302**	**294.1347**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-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	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**18.0663**	**1.6126**	**19.6788**	**9.9307**	**1.4836**	**11.4143**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated 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	lb/day										lb/day					
Hauling	0.1177	4.1504	0.9097	0.0159	0.4372	0.0386	0.4758	0.1198	0.0369	0.1568		1,727.2050	1,727.2050	0.0570	0.2736	1,810.1500
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
Worker	0.0524	0.0316	0.4653	1.3200e-003	0.1479	7.7000e-004	0.1486	0.0392	7.1000e-004	0.0399		134.6513	134.6513	3.6700e-003	3.3600e-003	135.7437
Total	**0.1701**	**4.1819**	**1.3750**	**0.0172**	**0.5851**	**0.0394**	**0.6245**	**0.1591**	**0.0376**	**0.1967**		**1,861.8564**	**1,861.8564**	**0.0607**	**0.2769**	**1,945.8937**

Madrone Apartments - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction On-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	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**18.0663**	**1.6126**	**19.6788**	**9.9307**	**1.4836**	**11.4143**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

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	lb/day										lb/day					
Hauling	0.1177	4.1504	0.9097	0.0159	0.4372	0.0386	0.4758	0.1198	0.0369	0.1568		1,727.2050	1,727.2050	0.0570	0.2736	1,810.1500
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
Worker	0.0524	0.0316	0.4653	1.3200e-003	0.1479	7.7000e-004	0.1486	0.0392	7.1000e-004	0.0399		134.6513	134.6513	3.6700e-003	3.3600e-003	135.7437
Total	**0.1701**	**4.1819**	**1.3750**	**0.0172**	**0.5851**	**0.0394**	**0.6245**	**0.1591**	**0.0376**	**0.1967**		**1,861.8564**	**1,861.8564**	**0.0607**	**0.2769**	**1,945.8937**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction On-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	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.5523**	**0.9409**	**7.4932**	**3.3675**	**0.8656**	**4.2331**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Unmitigated 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	lb/day										lb/day					
Hauling	0.0589	2.0752	0.4548	7.9300e-003	0.2186	0.0193	0.2379	0.0599	0.0185	0.0784		863.6025	863.6025	0.0285	0.1368	905.0750
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
Worker	0.0436	0.0263	0.3878	1.1000e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		112.2095	112.2095	3.0600e-003	2.8000e-003	113.1197
Total	**0.1025**	**2.1015**	**0.8426**	**9.0300e-003**	**0.3418**	**0.0199**	**0.3618**	**0.0926**	**0.0191**	**0.1117**		**975.8120**	**975.8120**	**0.0316**	**0.1396**	**1,018.1947**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction On-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	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.5523**	**0.9409**	**7.4932**	**3.3675**	**0.8656**	**4.2331**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

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	lb/day										lb/day					
Hauling	0.0589	2.0752	0.4548	7.9300e-003	0.2186	0.0193	0.2379	0.0599	0.0185	0.0784		863.6025	863.6025	0.0285	0.1368	905.0750
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
Worker	0.0436	0.0263	0.3878	1.1000e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		112.2095	112.2095	3.0600e-003	2.8000e-003	113.1197
Total	**0.1025**	**2.1015**	**0.8426**	**9.0300e-003**	**0.3418**	**0.0199**	**0.3618**	**0.0926**	**0.0191**	**0.1117**		**975.8120**	**975.8120**	**0.0316**	**0.1396**	**1,018.1947**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Unmitigated Construction On-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	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1028**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated 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	lb/day										lb/day					
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
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
Worker	0.0436	0.0263	0.3878	1.1000e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		112.2095	112.2095	3.0600e-003	2.8000e-003	113.1197
Total	**0.0436**	**0.0263**	**0.3878**	**1.1000e-003**	**0.1232**	**6.4000e-004**	**0.1239**	**0.0327**	**5.9000e-004**	**0.0333**		**112.2095**	**112.2095**	**3.0600e-003**	**2.8000e-003**	**113.1197**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Mitigated Construction On-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	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1028**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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	lb/day										lb/day					
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
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
Worker	0.0436	0.0263	0.3878	1.1000e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		112.2095	112.2095	3.0600e-003	2.8000e-003	113.1197
Total	**0.0436**	**0.0263**	**0.3878**	**1.1000e-003**	**0.1232**	**6.4000e-004**	**0.1239**	**0.0327**	**5.9000e-004**	**0.0333**		**112.2095**	**112.2095**	**3.0600e-003**	**2.8000e-003**	**113.1197**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2022

Unmitigated Construction On-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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated 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	lb/day										lb/day					
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
Vendor	0.0583	1.4565	0.4326	5.7200e-003	0.1829	0.0155	0.1984	0.0526	0.0148	0.0675		612.8618	612.8618	0.0134	0.0908	640.2568
Worker	0.5207	0.3140	4.6274	0.0132	1.4704	7.6800e-003	1.4781	0.3900	7.0800e-003	0.3971		1,339.0327	1,339.0327	0.0365	0.0334	1,349.8953
Total	**0.5790**	**1.7705**	**5.0600**	**0.0189**	**1.6533**	**0.0232**	**1.6765**	**0.4427**	**0.0219**	**0.4646**		**1,951.8945**	**1,951.8945**	**0.0499**	**0.1242**	**1,990.1520**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2022

Mitigated Construction On-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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	lb/day										lb/day					
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
Vendor	0.0583	1.4565	0.4326	5.7200e-003	0.1829	0.0155	0.1984	0.0526	0.0148	0.0675		612.8618	612.8618	0.0134	0.0908	640.2568
Worker	0.5207	0.3140	4.6274	0.0132	1.4704	7.6800e-003	1.4781	0.3900	7.0800e-003	0.3971		1,339.0327	1,339.0327	0.0365	0.0334	1,349.8953
Total	**0.5790**	**1.7705**	**5.0600**	**0.0189**	**1.6533**	**0.0232**	**1.6765**	**0.4427**	**0.0219**	**0.4646**		**1,951.8945**	**1,951.8945**	**0.0499**	**0.1242**	**1,990.1520**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2023

Unmitigated Construction On-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	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated 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	lb/day										lb/day					
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
Vendor	0.0294	1.1581	0.3698	5.4700e-003	0.1829	7.0100e-003	0.1899	0.0526	6.7100e-003	0.0594		587.1448	587.1448	0.0120	0.0868	613.3111
Worker	0.4842	0.2781	4.2790	0.0128	1.4704	7.2900e-003	1.4777	0.3900	6.7100e-003	0.3967		1,304.6324	1,304.6324	0.0329	0.0310	1,314.6784
Total	**0.5136**	**1.4362**	**4.6489**	**0.0182**	**1.6533**	**0.0143**	**1.6676**	**0.4427**	**0.0134**	**0.4561**		**1,891.7772**	**1,891.7772**	**0.0449**	**0.1178**	**1,927.9896**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2023

Mitigated Construction On-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	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	lb/day										lb/day					
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
Vendor	0.0294	1.1581	0.3698	5.4700e-003	0.1829	7.0100e-003	0.1899	0.0526	6.7100e-003	0.0594		587.1448	587.1448	0.0120	0.0868	613.3111
Worker	0.4842	0.2781	4.2790	0.0128	1.4704	7.2900e-003	1.4777	0.3900	6.7100e-003	0.3967		1,304.6324	1,304.6324	0.0329	0.0310	1,314.6784
Total	**0.5136**	**1.4362**	**4.6489**	**0.0182**	**1.6533**	**0.0143**	**1.6676**	**0.4427**	**0.0134**	**0.4561**		**1,891.7772**	**1,891.7772**	**0.0449**	**0.1178**	**1,927.9896**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2024

Unmitigated Construction On-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	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated 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	lb/day										lb/day					
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
Vendor	0.0286	1.1586	0.3619	5.3900e-003	0.1829	7.0700e-003	0.1899	0.0527	6.7600e-003	0.0594		577.9874	577.9874	0.0120	0.0854	603.7455
Worker	0.4523	0.2483	3.9882	0.0123	1.4704	6.9400e-003	1.4774	0.3900	6.3900e-003	0.3964		1,272.2624	1,272.2624	0.0298	0.0289	1,281.6042
Total	**0.4808**	**1.4069**	**4.3501**	**0.0177**	**1.6533**	**0.0140**	**1.6673**	**0.4427**	**0.0132**	**0.4558**		**1,850.2498**	**1,850.2498**	**0.0417**	**0.1143**	**1,885.3497**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2024

Mitigated Construction On-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	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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	lb/day										lb/day					
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
Vendor	0.0286	1.1586	0.3619	5.3900e-003	0.1829	7.0700e-003	0.1899	0.0527	6.7600e-003	0.0594		577.9874	577.9874	0.0120	0.0854	603.7455
Worker	0.4523	0.2483	3.9882	0.0123	1.4704	6.9400e-003	1.4774	0.3900	6.3900e-003	0.3964		1,272.2624	1,272.2624	0.0298	0.0289	1,281.6042
Total	**0.4808**	**1.4069**	**4.3501**	**0.0177**	**1.6533**	**0.0140**	**1.6673**	**0.4427**	**0.0132**	**0.4558**		**1,850.2498**	**1,850.2498**	**0.0417**	**0.1143**	**1,885.3497**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2022

Unmitigated Construction On-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	lb/day										lb/day					
Archit. Coating	7.3034					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**7.5079**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated 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	lb/day										lb/day					
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
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
Worker	0.1047	0.0632	0.9307	2.6500e-003	0.2957	1.5500e-003	0.2973	0.0784	1.4200e-003	0.0799		269.3027	269.3027	7.3400e-003	6.7200e-003	271.4873
Total	**0.1047**	**0.0632**	**0.9307**	**2.6500e-003**	**0.2957**	**1.5500e-003**	**0.2973**	**0.0784**	**1.4200e-003**	**0.0799**		**269.3027**	**269.3027**	**7.3400e-003**	**6.7200e-003**	**271.4873**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2022

Mitigated Construction On-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	lb/day										lb/day					
Archit. Coating	7.3034					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**7.5079**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	lb/day										lb/day					
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
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
Worker	0.1047	0.0632	0.9307	2.6500e-003	0.2957	1.5500e-003	0.2973	0.0784	1.4200e-003	0.0799		269.3027	269.3027	7.3400e-003	6.7200e-003	271.4873
Total	**0.1047**	**0.0632**	**0.9307**	**2.6500e-003**	**0.2957**	**1.5500e-003**	**0.2973**	**0.0784**	**1.4200e-003**	**0.0799**		**269.3027**	**269.3027**	**7.3400e-003**	**6.7200e-003**	**271.4873**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-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	lb/day										lb/day					
Archit. Coating	7.3034					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**7.4950**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated 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	lb/day										lb/day					
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
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
Worker	0.0974	0.0559	0.8606	2.5600e-003	0.2957	1.4700e-003	0.2972	0.0784	1.3500e-003	0.0798		262.3842	262.3842	6.6200e-003	6.2200e-003	264.4046
Total	**0.0974**	**0.0559**	**0.8606**	**2.5600e-003**	**0.2957**	**1.4700e-003**	**0.2972**	**0.0784**	**1.3500e-003**	**0.0798**		**262.3842**	**262.3842**	**6.6200e-003**	**6.2200e-003**	**264.4046**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-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	lb/day										lb/day					
Archit. Coating	7.3034					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**7.4950**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	lb/day										lb/day					
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
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
Worker	0.0974	0.0559	0.8606	2.5600e-003	0.2957	1.4700e-003	0.2972	0.0784	1.3500e-003	0.0798		262.3842	262.3842	6.6200e-003	6.2200e-003	264.4046
Total	**0.0974**	**0.0559**	**0.8606**	**2.5600e-003**	**0.2957**	**1.4700e-003**	**0.2972**	**0.0784**	**1.3500e-003**	**0.0798**		**262.3842**	**262.3842**	**6.6200e-003**	**6.2200e-003**	**264.4046**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Unmitigated Construction On-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	lb/day										lb/day					
Archit. Coating	7.3034					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**7.4841**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated 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	lb/day										lb/day					
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
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
Worker	0.0910	0.0499	0.8021	2.4800e-003	0.2957	1.4000e-003	0.2971	0.0784	1.2900e-003	0.0797		255.8740	255.8740	5.9800e-003	5.8000e-003	257.7528
Total	**0.0910**	**0.0499**	**0.8021**	**2.4800e-003**	**0.2957**	**1.4000e-003**	**0.2971**	**0.0784**	**1.2900e-003**	**0.0797**		**255.8740**	**255.8740**	**5.9800e-003**	**5.8000e-003**	**257.7528**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Mitigated Construction On-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	lb/day										lb/day					
Archit. Coating	7.3034					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**7.4841**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	lb/day										lb/day					
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
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
Worker	0.0910	0.0499	0.8021	2.4800e-003	0.2957	1.4000e-003	0.2971	0.0784	1.2900e-003	0.0797		255.8740	255.8740	5.9800e-003	5.8000e-003	257.7528
Total	**0.0910**	**0.0499**	**0.8021**	**2.4800e-003**	**0.2957**	**1.4000e-003**	**0.2971**	**0.0784**	**1.2900e-003**	**0.0797**		**255.8740**	**255.8740**	**5.9800e-003**	**5.8000e-003**	**257.7528**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	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	lb/day										lb/day					
Mitigated	1.4931	2.8766	14.3194	0.0441	4.3537	0.0336	4.3873	1.1624	0.0314	1.1938		4,587.3869	4,587.3869	0.1978	0.2465	4,665.8006
Unmitigated	1.5163	3.0239	15.0733	0.0472	4.6764	0.0358	4.7122	1.2485	0.0335	1.2820		4,914.3451	4,914.3451	0.2057	0.2606	4,997.1312

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	956.16	956.16	956.16	2,208,354	2,055,978
Total	956.16	956.16	956.16	2,208,354	2,055,978

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
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	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	lb/day										lb/day					
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Apartments Mid Rise	0	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**

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	lb/day										lb/day					
Apartments Mid Rise	0	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**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

Madrone Apartments - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Mitigated	6.9065	0.2366	20.5342	1.0800e-003		0.1138	0.1138		0.1138	0.1138	0.0000	36.9895	36.9895	0.0355	0.0000	37.8768
Unmitigated	109.3102	2.5005	155.8298	0.2617		19.3210	19.3210		19.3210	19.3210	2,084.3407	959.7542	3,044.0949	2.8878	0.1473	3,160.1934

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	lb/day										lb/day					
Architectural Coating	0.9605					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	102.4038	2.2639	135.2956	0.2607		19.2072	19.2072		19.2072	19.2072	2,084.3407	922.7647	3,007.1054	2.8523	0.1473	3,122.3166
Landscaping	0.6174	0.2366	20.5342	1.0800e-003		0.1138	0.1138		0.1138	0.1138		36.9895	36.9895	0.0355		37.8768
Total	**109.3102**	**2.5005**	**155.8298**	**0.2617**		**19.3210**	**19.3210**		**19.3210**	**19.3210**	**2,084.3407**	**959.7542**	**3,044.0949**	**2.8878**	**0.1473**	**3,160.1934**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Architectural Coating	0.9605					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	0.6174	0.2366	20.5342	1.0800e-003		0.1138	0.1138		0.1138	0.1138		36.9895	36.9895	0.0355		37.8768
Total	**6.9065**	**0.2366**	**20.5342**	**1.0800e-003**		**0.1138**	**0.1138**		**0.1138**	**0.1138**	**0.0000**	**36.9895**	**36.9895**	**0.0355**	**0.0000**	**37.8768**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

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 Applied

Madrone Apartments

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	249.00	Dwelling Unit	7.58	249,000.00	712

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	0	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2024
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 - CO2 intensity factor adjusted per PG&E's RPS projections.

Land Use - Lot acreage adjusted to match site plan.

Construction Phase - Phase timing adjusted per applicant-provided AQ Questionnaire.

Demolition -

Grading -

Vehicle Trips - Trip rate generation rate adjusted per project-specific traffic report.

Energy Use - No natural gas - per Morgan Hill regulations.

Mobile Land Use Mitigation -

Area Mitigation - No hearths would be installed, as noted on AQ Questionnaire.

Energy Mitigation - Consistent with 2019 CBSC, all electricity would be renewable.

Water Mitigation - Water conservation strategy applied to relfect compliance with 2019 CalGreen Code and MWELO.

Madrone Apartments - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	0.00	150.00
tblConstructionPhase	NumDays	20.00	480.00
tblConstructionPhase	NumDays	230.00	480.00
tblConstructionPhase	NumDays	20.00	5.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24NG	5,226.68	0.00
tblFleetMix	HHD	0.00	0.03
tblFleetMix	LDA	0.00	0.58
tblFleetMix	LDT1	0.00	0.04
tblFleetMix	LDT2	0.00	0.19
tblFleetMix	LHD1	0.00	0.02
tblFleetMix	LHD2	0.00	5.3240e-003
tblFleetMix	MCY	0.00	5.7930e-003
tblFleetMix	MDV	0.00	0.11
tblFleetMix	MH	0.00	7.3200e-004
tblFleetMix	MHD	0.00	0.02
tblFleetMix	OBUS	0.00	2.6490e-003
tblFleetMix	SBUS	0.00	8.9600e-004
tblFleetMix	UBUS	0.00	2.1340e-003
tblGrading	MaterialExported	0.00	2,000.00
tblGrading	MaterialExported	0.00	2,000.00
tblProjectCharacteristics	CH4IntensityFactor	0	0.033
tblProjectCharacteristics	CO2IntensityFactor	0	203.98
tblProjectCharacteristics	N2OIntensityFactor	0	0.004
tblProjectCharacteristics	PrecipitationFrequency	0	64
tblVehicleTrips	ST_TR	4.91	3.84
tblVehicleTrips	SU_TR	4.09	3.84
tblVehicleTrips	WD_TR	5.44	3.84

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2022	9.9107	37.5017	23.9261	0.0551	18.6514	1.6520	20.3033	10.0897	1.5213	11.6110	0.0000	5,538.9114	5,538.9114	1.2531	0.2775	5,652.9437
2023	9.6926	17.3255	23.3601	0.0496	1.9490	0.7864	2.7354	0.5211	0.7440	1.2652	0.0000	4,880.5861	4,880.5861	0.6815	0.1298	4,936.3087
2024	9.5426	16.2565	22.9555	0.0491	1.9490	0.6897	2.6387	0.5211	0.6523	1.1734	0.0000	4,836.0281	4,836.0281	0.6728	0.1255	4,890.2535
Maximum	**9.9107**	**37.5017**	**23.9261**	**0.0551**	**18.6514**	**1.6520**	**20.3033**	**10.0897**	**1.5213**	**11.6110**	**0.0000**	**5,538.9114**	**5,538.9114**	**1.2531**	**0.2775**	**5,652.9437**

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	lb/day										lb/day					
2022	9.9107	37.5017	23.9261	0.0551	18.6514	1.6520	20.3033	10.0897	1.5213	11.6110	0.0000	5,538.9113	5,538.9113	1.2531	0.2775	5,652.9437
2023	9.6926	17.3255	23.3601	0.0496	1.9490	0.7864	2.7354	0.5211	0.7440	1.2652	0.0000	4,880.5861	4,880.5861	0.6815	0.1298	4,936.3087
2024	9.5426	16.2565	22.9555	0.0491	1.9490	0.6897	2.6387	0.5211	0.6523	1.1734	0.0000	4,836.0281	4,836.0281	0.6728	0.1255	4,890.2535
Maximum	**9.9107**	**37.5017**	**23.9261**	**0.0551**	**18.6514**	**1.6520**	**20.3033**	**10.0897**	**1.5213**	**11.6110**	**0.0000**	**5,538.9113**	**5,538.9113**	**1.2531**	**0.2775**	**5,652.9437**

Madrone Apartments - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	lb/day										lb/day					
Area	109.3102	2.5005	155.8298	0.2617		19.3210	19.3210		19.3210	19.3210	2,084.3407	959.7542	3,044.0949	2.8878	0.1473	3,160.1934
Energy	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
Mobile	1.3376	3.3582	15.7390	0.0447	4.6764	0.0359	4.7123	1.2485	0.0336	1.2821		4,660.5530	4,660.5530	0.2322	0.2771	4,748.9201
Total	**110.6478**	**5.8586**	**171.5688**	**0.3065**	**4.6764**	**19.3569**	**24.0333**	**1.2485**	**19.3546**	**20.6031**	**2,084.3407**	**5,620.3072**	**7,704.6479**	**3.1200**	**0.4244**	**7,909.1136**

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	lb/day										lb/day					
Area	6.9065	0.2366	20.5342	1.0800e-003		0.1138	0.1138		0.1138	0.1138	0.0000	36.9895	36.9895	0.0355	0.0000	37.8768
Energy	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
Mobile	1.3144	3.1959	15.0699	0.0418	4.3537	0.0336	4.3874	1.1624	0.0315	1.1939		4,351.4596	4,351.4596	0.2245	0.2624	4,435.2787
Total	**8.2209**	**3.4325**	**35.6041**	**0.0428**	**4.3537**	**0.1475**	**4.5012**	**1.1624**	**0.1453**	**1.3077**	**0.0000**	**4,388.4492**	**4,388.4492**	**0.2600**	**0.2624**	**4,473.1555**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	**92.57**	**41.41**	**79.25**	**86.02**	**6.90**	**99.24**	**81.27**	**6.90**	**99.25**	**93.65**	**100.00**	**21.92**	**43.04**	**91.67**	**38.16**	**43.44**

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	5/1/2022	5/27/2022	5	20	
2	Site Preparation	Site Preparation	5/28/2022	6/10/2022	5	10	
3	Grading	Grading	6/11/2022	7/8/2022	5	20	
4	Paving	Paving	7/9/2022	7/15/2022	5	5	
5	Building Construction	Building Construction	7/16/2022	5/17/2024	5	480	
6	Architectural Coating	Architectural Coating	7/30/2022	5/31/2024	5	480	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 504,225; Residential Outdoor: 168,075; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	50.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	250.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	250.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	179.00	27.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	36.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-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	lb/day										lb/day					
Fugitive Dust					0.5136	0.0000	0.5136	0.0778	0.0000	0.0778			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.5136**	**1.2427**	**1.7562**	**0.0778**	**1.1553**	**1.2330**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Unmitigated 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	lb/day										lb/day					
Hauling	0.0115	0.4379	0.0924	1.5900e-003	0.0437	3.8600e-003	0.0476	0.0120	3.7000e-003	0.0157		172.7767	172.7767	5.6800e-003	0.0274	181.0739
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
Worker	0.0446	0.0325	0.3699	1.0200e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		104.2358	104.2358	3.4600e-003	3.2200e-003	105.2827
Total	**0.0561**	**0.4704**	**0.4623**	**2.6100e-003**	**0.1669**	**4.5000e-003**	**0.1715**	**0.0447**	**4.2900e-003**	**0.0490**		**277.0125**	**277.0125**	**9.1400e-003**	**0.0306**	**286.3566**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-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	lb/day										lb/day					
Fugitive Dust					0.5136	0.0000	0.5136	0.0778	0.0000	0.0778			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.5136**	**1.2427**	**1.7562**	**0.0778**	**1.1553**	**1.2330**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	lb/day										lb/day					
Hauling	0.0115	0.4379	0.0924	1.5900e-003	0.0437	3.8600e-003	0.0476	0.0120	3.7000e-003	0.0157		172.7767	172.7767	5.6800e-003	0.0274	181.0739
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
Worker	0.0446	0.0325	0.3699	1.0200e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		104.2358	104.2358	3.4600e-003	3.2200e-003	105.2827
Total	**0.0561**	**0.4704**	**0.4623**	**2.6100e-003**	**0.1669**	**4.5000e-003**	**0.1715**	**0.0447**	**4.2900e-003**	**0.0490**		**277.0125**	**277.0125**	**9.1400e-003**	**0.0306**	**286.3566**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-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	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**18.0663**	**1.6126**	**19.6788**	**9.9307**	**1.4836**	**11.4143**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated 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	lb/day										lb/day					
Hauling	0.1151	4.3792	0.9243	0.0159	0.4372	0.0386	0.4759	0.1198	0.0370	0.1568		1,727.7665	1,727.7665	0.0568	0.2737	1,810.7389
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
Worker	0.0535	0.0390	0.4438	1.2300e-003	0.1479	7.7000e-004	0.1486	0.0392	7.1000e-004	0.0399		125.0830	125.0830	4.1600e-003	3.8700e-003	126.3392
Total	**0.1686**	**4.4182**	**1.3681**	**0.0171**	**0.5851**	**0.0394**	**0.6245**	**0.1591**	**0.0377**	**0.1967**		**1,852.8495**	**1,852.8495**	**0.0610**	**0.2775**	**1,937.0781**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction On-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	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**18.0663**	**1.6126**	**19.6788**	**9.9307**	**1.4836**	**11.4143**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

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	lb/day										lb/day					
Hauling	0.1151	4.3792	0.9243	0.0159	0.4372	0.0386	0.4759	0.1198	0.0370	0.1568		1,727.7665	1,727.7665	0.0568	0.2737	1,810.7389
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
Worker	0.0535	0.0390	0.4438	1.2300e-003	0.1479	7.7000e-004	0.1486	0.0392	7.1000e-004	0.0399		125.0830	125.0830	4.1600e-003	3.8700e-003	126.3392
Total	**0.1686**	**4.4182**	**1.3681**	**0.0171**	**0.5851**	**0.0394**	**0.6245**	**0.1591**	**0.0377**	**0.1967**		**1,852.8495**	**1,852.8495**	**0.0610**	**0.2775**	**1,937.0781**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction On-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	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.5523**	**0.9409**	**7.4932**	**3.3675**	**0.8656**	**4.2331**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Unmitigated 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	lb/day										lb/day					
Hauling	0.0575	2.1896	0.4621	7.9300e-003	0.2186	0.0193	0.2379	0.0599	0.0185	0.0784		863.8833	863.8833	0.0284	0.1368	905.3695
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
Worker	0.0446	0.0325	0.3699	1.0200e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		104.2358	104.2358	3.4600e-003	3.2200e-003	105.2827
Total	**0.1021**	**2.2221**	**0.8320**	**8.9500e-003**	**0.3418**	**0.0200**	**0.3618**	**0.0926**	**0.0191**	**0.1117**		**968.1191**	**968.1191**	**0.0319**	**0.1401**	**1,010.6521**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction On-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	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.5523**	**0.9409**	**7.4932**	**3.3675**	**0.8656**	**4.2331**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

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	lb/day										lb/day					
Hauling	0.0575	2.1896	0.4621	7.9300e-003	0.2186	0.0193	0.2379	0.0599	0.0185	0.0784		863.8833	863.8833	0.0284	0.1368	905.3695
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
Worker	0.0446	0.0325	0.3699	1.0200e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		104.2358	104.2358	3.4600e-003	3.2200e-003	105.2827
Total	**0.1021**	**2.2221**	**0.8320**	**8.9500e-003**	**0.3418**	**0.0200**	**0.3618**	**0.0926**	**0.0191**	**0.1117**		**968.1191**	**968.1191**	**0.0319**	**0.1401**	**1,010.6521**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Unmitigated Construction On-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	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1028**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated 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	lb/day										lb/day					
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
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
Worker	0.0446	0.0325	0.3699	1.0200e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		104.2358	104.2358	3.4600e-003	3.2200e-003	105.2827
Total	**0.0446**	**0.0325**	**0.3699**	**1.0200e-003**	**0.1232**	**6.4000e-004**	**0.1239**	**0.0327**	**5.9000e-004**	**0.0333**		**104.2358**	**104.2358**	**3.4600e-003**	**3.2200e-003**	**105.2827**

Madrone Apartments - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Mitigated Construction On-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	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1028**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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	lb/day										lb/day					
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
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
Worker	0.0446	0.0325	0.3699	1.0200e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		104.2358	104.2358	3.4600e-003	3.2200e-003	105.2827
Total	**0.0446**	**0.0325**	**0.3699**	**1.0200e-003**	**0.1232**	**6.4000e-004**	**0.1239**	**0.0327**	**5.9000e-004**	**0.0333**		**104.2358**	**104.2358**	**3.4600e-003**	**3.2200e-003**	**105.2827**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2022

Unmitigated Construction On-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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated 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	lb/day										lb/day					
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
Vendor	0.0576	1.5361	0.4477	5.7200e-003	0.1829	0.0156	0.1984	0.0526	0.0149	0.0675		613.1100	613.1100	0.0133	0.0910	640.5446
Worker	0.5319	0.3876	4.4137	0.0122	1.4704	7.6800e-003	1.4781	0.3900	7.0800e-003	0.3971		1,243.8807	1,243.8807	0.0413	0.0385	1,256.3733
Total	**0.5895**	**1.9237**	**4.8614**	**0.0180**	**1.6533**	**0.0232**	**1.6765**	**0.4427**	**0.0220**	**0.4646**		**1,856.9907**	**1,856.9907**	**0.0546**	**0.1294**	**1,896.9178**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2022

Mitigated Construction On-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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	lb/day										lb/day					
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
Vendor	0.0576	1.5361	0.4477	5.7200e-003	0.1829	0.0156	0.1984	0.0526	0.0149	0.0675		613.1100	613.1100	0.0133	0.0910	640.5446
Worker	0.5319	0.3876	4.4137	0.0122	1.4704	7.6800e-003	1.4781	0.3900	7.0800e-003	0.3971		1,243.8807	1,243.8807	0.0413	0.0385	1,256.3733
Total	**0.5895**	**1.9237**	**4.8614**	**0.0180**	**1.6533**	**0.0232**	**1.6765**	**0.4427**	**0.0220**	**0.4646**		**1,856.9907**	**1,856.9907**	**0.0546**	**0.1294**	**1,896.9178**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2023

Unmitigated Construction On-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	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated 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	lb/day										lb/day					
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
Vendor	0.0284	1.2254	0.3825	5.4800e-003	0.1829	7.0400e-003	0.1899	0.0526	6.7300e-003	0.0594		587.9846	587.9846	0.0119	0.0870	614.2149
Worker	0.4966	0.3432	4.0983	0.0118	1.4704	7.2900e-003	1.4777	0.3900	6.7100e-003	0.3967		1,212.1576	1,212.1576	0.0374	0.0356	1,223.7095
Total	**0.5250**	**1.5686**	**4.4807**	**0.0173**	**1.6533**	**0.0143**	**1.6676**	**0.4427**	**0.0134**	**0.4561**		**1,800.1422**	**1,800.1422**	**0.0493**	**0.1227**	**1,837.9244**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2023

Mitigated Construction On-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	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	lb/day										lb/day					
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
Vendor	0.0284	1.2254	0.3825	5.4800e-003	0.1829	7.0400e-003	0.1899	0.0526	6.7300e-003	0.0594		587.9846	587.9846	0.0119	0.0870	614.2149
Worker	0.4966	0.3432	4.0983	0.0118	1.4704	7.2900e-003	1.4777	0.3900	6.7100e-003	0.3967		1,212.1576	1,212.1576	0.0374	0.0356	1,223.7095
Total	**0.5250**	**1.5686**	**4.4807**	**0.0173**	**1.6533**	**0.0143**	**1.6676**	**0.4427**	**0.0134**	**0.4561**		**1,800.1422**	**1,800.1422**	**0.0493**	**0.1227**	**1,837.9244**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2024

Unmitigated Construction On-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	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated 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	lb/day										lb/day					
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
Vendor	0.0275	1.2260	0.3745	5.3900e-003	0.1829	7.1000e-003	0.1900	0.0527	6.7900e-003	0.0594		578.8335	578.8335	0.0119	0.0857	604.6533
Worker	0.4657	0.3063	3.8332	0.0115	1.4704	6.9400e-003	1.4774	0.3900	6.3900e-003	0.3964		1,182.2722	1,182.2722	0.0339	0.0332	1,193.0127
Total	**0.4932**	**1.5323**	**4.2077**	**0.0169**	**1.6533**	**0.0140**	**1.6674**	**0.4427**	**0.0132**	**0.4559**		**1,761.1057**	**1,761.1057**	**0.0458**	**0.1189**	**1,797.6660**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2024

Mitigated Construction On-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	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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	lb/day										lb/day					
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
Vendor	0.0275	1.2260	0.3745	5.3900e-003	0.1829	7.1000e-003	0.1900	0.0527	6.7900e-003	0.0594		578.8335	578.8335	0.0119	0.0857	604.6533
Worker	0.4657	0.3063	3.8332	0.0115	1.4704	6.9400e-003	1.4774	0.3900	6.3900e-003	0.3964		1,182.2722	1,182.2722	0.0339	0.0332	1,193.0127
Total	**0.4932**	**1.5323**	**4.2077**	**0.0169**	**1.6533**	**0.0140**	**1.6674**	**0.4427**	**0.0132**	**0.4559**		**1,761.1057**	**1,761.1057**	**0.0458**	**0.1189**	**1,797.6660**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2022

Unmitigated Construction On-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	lb/day										lb/day					
Archit. Coating	7.3034					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**7.5079**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated 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	lb/day										lb/day					
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
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
Worker	0.1070	0.0780	0.8877	2.4600e-003	0.2957	1.5500e-003	0.2973	0.0784	1.4200e-003	0.0799		250.1659	250.1659	8.3100e-003	7.7300e-003	252.6784
Total	**0.1070**	**0.0780**	**0.8877**	**2.4600e-003**	**0.2957**	**1.5500e-003**	**0.2973**	**0.0784**	**1.4200e-003**	**0.0799**		**250.1659**	**250.1659**	**8.3100e-003**	**7.7300e-003**	**252.6784**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2022

Mitigated Construction On-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	lb/day										lb/day					
Archit. Coating	7.3034					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**7.5079**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	lb/day										lb/day					
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
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
Worker	0.1070	0.0780	0.8877	2.4600e-003	0.2957	1.5500e-003	0.2973	0.0784	1.4200e-003	0.0799		250.1659	250.1659	8.3100e-003	7.7300e-003	252.6784
Total	**0.1070**	**0.0780**	**0.8877**	**2.4600e-003**	**0.2957**	**1.5500e-003**	**0.2973**	**0.0784**	**1.4200e-003**	**0.0799**		**250.1659**	**250.1659**	**8.3100e-003**	**7.7300e-003**	**252.6784**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-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	lb/day										lb/day					
Archit. Coating	7.3034					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**7.4950**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated 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	lb/day										lb/day					
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
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
Worker	0.0999	0.0690	0.8242	2.3800e-003	0.2957	1.4700e-003	0.2972	0.0784	1.3500e-003	0.0798		243.7859	243.7859	7.5200e-003	7.1700e-003	246.1092
Total	**0.0999**	**0.0690**	**0.8242**	**2.3800e-003**	**0.2957**	**1.4700e-003**	**0.2972**	**0.0784**	**1.3500e-003**	**0.0798**		**243.7859**	**243.7859**	**7.5200e-003**	**7.1700e-003**	**246.1092**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-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	lb/day										lb/day					
Archit. Coating	7.3034					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**7.4950**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	lb/day										lb/day					
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
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
Worker	0.0999	0.0690	0.8242	2.3800e-003	0.2957	1.4700e-003	0.2972	0.0784	1.3500e-003	0.0798		243.7859	243.7859	7.5200e-003	7.1700e-003	246.1092
Total	**0.0999**	**0.0690**	**0.8242**	**2.3800e-003**	**0.2957**	**1.4700e-003**	**0.2972**	**0.0784**	**1.3500e-003**	**0.0798**		**243.7859**	**243.7859**	**7.5200e-003**	**7.1700e-003**	**246.1092**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Unmitigated Construction On-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	lb/day										lb/day					
Archit. Coating	7.3034					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**7.4841**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated 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	lb/day										lb/day					
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
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
Worker	0.0937	0.0616	0.7709	2.3000e-003	0.2957	1.4000e-003	0.2971	0.0784	1.2900e-003	0.0797		237.7754	237.7754	6.8200e-003	6.6800e-003	239.9355
Total	**0.0937**	**0.0616**	**0.7709**	**2.3000e-003**	**0.2957**	**1.4000e-003**	**0.2971**	**0.0784**	**1.2900e-003**	**0.0797**		**237.7754**	**237.7754**	**6.8200e-003**	**6.6800e-003**	**239.9355**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Mitigated Construction On-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	lb/day										lb/day					
Archit. Coating	7.3034					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**7.4841**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	lb/day										lb/day					
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
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
Worker	0.0937	0.0616	0.7709	2.3000e-003	0.2957	1.4000e-003	0.2971	0.0784	1.2900e-003	0.0797		237.7754	237.7754	6.8200e-003	6.6800e-003	239.9355
Total	**0.0937**	**0.0616**	**0.7709**	**2.3000e-003**	**0.2957**	**1.4000e-003**	**0.2971**	**0.0784**	**1.2900e-003**	**0.0797**		**237.7754**	**237.7754**	**6.8200e-003**	**6.6800e-003**	**239.9355**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	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	lb/day										lb/day					
Mitigated	1.3144	3.1959	15.0699	0.0418	4.3537	0.0336	4.3874	1.1624	0.0315	1.1939		4,351.4596	4,351.4596	0.2245	0.2624	4,435.2787
Unmitigated	1.3376	3.3582	15.7390	0.0447	4.6764	0.0359	4.7123	1.2485	0.0336	1.2821		4,660.5530	4,660.5530	0.2322	0.2771	4,748.9201

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	956.16	956.16	956.16	2,208,354	2,055,978
Total	956.16	956.16	956.16	2,208,354	2,055,978

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
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	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	lb/day										lb/day					
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Apartments Mid Rise	0	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**

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	lb/day										lb/day					
Apartments Mid Rise	0	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**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Mitigated	6.9065	0.2366	20.5342	1.0800e-003		0.1138	0.1138		0.1138	0.1138	0.0000	36.9895	36.9895	0.0355	0.0000	37.8768
Unmitigated	109.3102	2.5005	155.8298	0.2617		19.3210	19.3210		19.3210	19.3210	2,084.3407	959.7542	3,044.0949	2.8878	0.1473	3,160.1934

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	lb/day										lb/day					
Architectural Coating	0.9605					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	102.4038	2.2639	135.2956	0.2607		19.2072	19.2072		19.2072	19.2072	2,084.3407	922.7647	3,007.1054	2.8523	0.1473	3,122.3166
Landscaping	0.6174	0.2366	20.5342	1.0800e-003		0.1138	0.1138		0.1138	0.1138		36.9895	36.9895	0.0355		37.8768
Total	**109.3102**	**2.5005**	**155.8298**	**0.2617**		**19.3210**	**19.3210**		**19.3210**	**19.3210**	**2,084.3407**	**959.7542**	**3,044.0949**	**2.8878**	**0.1473**	**3,160.1934**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Architectural Coating	0.9605					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	0.6174	0.2366	20.5342	1.0800e-003		0.1138	0.1138		0.1138	0.1138		36.9895	36.9895	0.0355		37.8768
Total	**6.9065**	**0.2366**	**20.5342**	**1.0800e-003**		**0.1138**	**0.1138**		**0.1138**	**0.1138**	**0.0000**	**36.9895**	**36.9895**	**0.0355**	**0.0000**	**37.8768**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

Madrone Apartments

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Bay Area AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Madrone Apartments

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	4	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	2	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	6	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	10	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

Madrone Apartments

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	4.61100E-002	3.13890E-001	4.34750E-001	7.10000E-004	1.70500E-002	1.70500E-002	0.00000E+000	6.12781E+001	6.12781E+001	3.69000E-003	0.00000E+000	6.13704E+001
Concrete/Industrial Saws	3.58000E-003	2.80100E-002	3.66500E-002	6.00000E-005	1.50000E-003	1.50000E-003	0.00000E+000	5.37656E+000	5.37656E+000	2.90000E-004	0.00000E+000	5.38390E+000
Cranes	7.40700E-002	8.07000E-001	3.85660E-001	1.21000E-003	3.36200E-002	3.09300E-002	0.00000E+000	1.06460E+002	1.06460E+002	3.44300E-002	0.00000E+000	1.07321E+002
Excavators	8.10000E-003	7.10800E-002	1.30210E-001	2.10000E-004	3.44000E-003	3.16000E-003	0.00000E+000	1.81443E+001	1.81443E+001	5.87000E-003	0.00000E+000	1.82910E+001
Forklifts	7.45700E-002	6.96680E-001	8.25040E-001	1.10000E-003	4.33600E-002	3.98900E-002	0.00000E+000	9.66897E+001	9.66897E+001	3.12700E-002	0.00000E+000	9.74715E+001
Generator Sets	7.38100E-002	6.55950E-001	8.80770E-001	1.58000E-003	3.10300E-002	3.10300E-002	0.00000E+000	1.35650E+002	1.35650E+002	5.99000E-003	0.00000E+000	1.35799E+002
Graders	4.15000E-003	5.25800E-002	1.72200E-002	7.00000E-005	1.67000E-003	1.54000E-003	0.00000E+000	5.81758E+000	5.81758E+000	1.88000E-003	0.00000E+000	5.86462E+000
Pavers	1.03000E-003	1.04900E-002	1.44200E-002	2.00000E-005	5.00000E-004	4.60000E-004	0.00000E+000	2.06502E+000	2.06502E+000	6.70000E-004	0.00000E+000	2.08171E+000
Paving Equipment	8.90000E-004	8.69000E-003	1.27300E-002	2.00000E-005	4.20000E-004	3.90000E-004	0.00000E+000	1.78928E+000	1.78928E+000	5.80000E-004	0.00000E+000	1.80375E+000
Rollers	8.30000E-004	8.63000E-003	9.30000E-003	1.00000E-005	5.00000E-004	4.60000E-004	0.00000E+000	1.15260E+000	1.15260E+000	3.70000E-004	0.00000E+000	1.16191E+000
Rubber Tired Dozers	3.76700E-002	3.95710E-001	1.61190E-001	3.80000E-004	1.87800E-002	1.72800E-002	0.00000E+000	3.37623E+001	3.37623E+001	1.09200E-002	0.00000E+000	3.40353E+001
Tractors/Loaders/Backhoes	1.04720E-001	1.06183E+000	1.51923E+000	2.12000E-003	5.32900E-002	4.90300E-002	0.00000E+000	1.85997E+002	1.85997E+002	6.01600E-002	0.00000E+000	1.87501E+002
Welders	6.14800E-002	3.41480E-001	4.03070E-001	6.10000E-004	1.33700E-002	1.33700E-002	0.00000E+000	4.51730E+001	4.51730E+001	4.98000E-003	0.00000E+000	4.52975E+001

Madrone Apartments

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	4.61100E-002	3.13890E-001	4.34750E-001	7.10000E-004	1.70500E-002	1.70500E-002	0.00000E+000	6.12780E+001	6.12780E+001	3.69000E-003	0.00000E+000	6.13703E+001
Concrete/Industrial Saws	3.58000E-003	2.80100E-002	3.66500E-002	6.00000E-005	1.50000E-003	1.50000E-003	0.00000E+000	5.37656E+000	5.37656E+000	2.90000E-004	0.00000E+000	5.38389E+000
Cranes	7.40700E-002	8.07000E-001	3.85660E-001	1.21000E-003	3.36200E-002	3.09300E-002	0.00000E+000	1.06460E+002	1.06460E+002	3.44300E-002	0.00000E+000	1.07321E+002
Excavators	8.10000E-003	7.10800E-002	1.30210E-001	2.10000E-004	3.44000E-003	3.16000E-003	0.00000E+000	1.81442E+001	1.81442E+001	5.87000E-003	0.00000E+000	1.82909E+001
Forklifts	7.45700E-002	6.96680E-001	8.25040E-001	1.10000E-003	4.33600E-002	3.98900E-002	0.00000E+000	9.66896E+001	9.66896E+001	3.12700E-002	0.00000E+000	9.74714E+001
Generator Sets	7.38100E-002	6.55950E-001	8.80770E-001	1.58000E-003	3.10300E-002	3.10300E-002	0.00000E+000	1.35650E+002	1.35650E+002	5.99000E-003	0.00000E+000	1.35799E+002
Graders	4.15000E-003	5.25800E-002	1.72200E-002	7.00000E-005	1.67000E-003	1.54000E-003	0.00000E+000	5.81758E+000	5.81758E+000	1.88000E-003	0.00000E+000	5.86462E+000
Pavers	1.03000E-003	1.04900E-002	1.44200E-002	2.00000E-005	5.00000E-004	4.60000E-004	0.00000E+000	2.06501E+000	2.06501E+000	6.70000E-004	0.00000E+000	2.08171E+000
Paving Equipment	8.90000E-004	8.69000E-003	1.27300E-002	2.00000E-005	4.20000E-004	3.90000E-004	0.00000E+000	1.78928E+000	1.78928E+000	5.80000E-004	0.00000E+000	1.80374E+000
Rollers	8.30000E-004	8.63000E-003	9.30000E-003	1.00000E-005	5.00000E-004	4.60000E-004	0.00000E+000	1.15259E+000	1.15259E+000	3.70000E-004	0.00000E+000	1.16191E+000
Rubber Tired Dozers	3.76700E-002	3.95710E-001	1.61190E-001	3.80000E-004	1.87800E-002	1.72800E-002	0.00000E+000	3.37623E+001	3.37623E+001	1.09200E-002	0.00000E+000	3.40353E+001
Tractors/Loaders/Backhoes	1.04720E-001	1.06183E+000	1.51923E+000	2.12000E-003	5.32900E-002	4.90300E-002	0.00000E+000	1.85997E+002	1.85997E+002	6.01600E-002	0.00000E+000	1.87501E+002
Welders	6.14800E-002	3.41480E-001	4.03060E-001	6.10000E-004	1.33700E-002	1.33700E-002	0.00000E+000	4.51729E+001	4.51729E+001	4.98000E-003	0.00000E+000	4.52974E+001

Madrone Apartments

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.14233E-006	1.14233E-006	0.00000E+000	0.00000E+000	1.14062E-006
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.85739E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.22112E-006	1.22112E-006	0.00000E+000	0.00000E+000	1.21132E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.10228E-006	1.10228E-006	0.00000E+000	0.00000E+000	1.09344E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.13766E-006	1.13766E-006	0.00000E+000	0.00000E+000	1.23113E-006
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17951E-006	1.17951E-006	0.00000E+000	0.00000E+000	1.17821E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	4.84257E-006	4.84257E-006	0.00000E+000	0.00000E+000	0.00000E+000
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	5.54401E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	8.67604E-006	8.67604E-006	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18475E-006	1.18475E-006	0.00000E+000	0.00000E+000	1.17525E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23658E-006	1.23658E-006	0.00000E+000	0.00000E+000	1.22666E-006
Welders	0.00000E+000	0.00000E+000	2.48096E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.10686E-006	1.10686E-006	0.00000E+000	0.00000E+000	1.10381E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction			

Madrone Apartments

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	
No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.07	0.02	0.07	0.02	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.38	0.10	0.38	0.10	0.00	0.00
Demolition	Fugitive Dust	0.01	0.00	0.01	0.00	0.00	0.00
Demolition	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Grading	Fugitive Dust	0.07	0.03	0.07	0.03	0.00	0.00
Grading	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.09	0.05	0.09	0.05	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Madrone Apartments

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	1.70	4.86	4.48	6.72	6.14	6.08	0.00	6.64	6.64	3.50	5.33	6.61
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	20.00	20.00	20.00	19.98	20.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Low Density Suburban

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
Yes	Land Use	Increase Transit Accessibility	0.21	0.10		
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.05			

Madrone Apartments

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Yes	Neighborhood Enhancements	Improve Pedestrian Network	2.00	Project Site and Connecting Off-Site		
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.02			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.07			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"	3.00			
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	

Madrone Apartments

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Commute	Provide Ride Sharing Program	5.00			
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.07			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
Yes	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	150.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24	0.00	

Madrone Apartments

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Install High Efficiency Lighting	0.00	
Yes	On-site Renewable	0.00	100.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Apply Water Conservation on Strategy	20.00	20.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Madrone Apartments

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Madrone Apartments

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	249.00	Dwelling Unit	7.58	249,000.00	712

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	0	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2030
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 - CO2 intensity factor adjusted per PG&E's RPS projections.

Land Use - Lot acreage adjusted to match site plan.

Construction Phase - Phase timing adjusted per applicant-provided AQ Questionnaire.

Demolition -

Grading -

Vehicle Trips - Trip rate generation rate adjusted per project-specific traffic report.

Energy Use - No natural gas - per Morgan Hill regulations.

Mobile Land Use Mitigation -

Area Mitigation - No hearths would be installed, as noted on AQ Questionnaire.

Energy Mitigation - Consistent with 2019 CBSC, all electricity would be renewable.

Water Mitigation - Water conservation strategy applied to relfect compliance with 2019 CalGreen Code and MWELO.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	0.00	150.00
tblConstructionPhase	NumDays	20.00	480.00
tblConstructionPhase	NumDays	230.00	480.00
tblConstructionPhase	NumDays	20.00	5.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24NG	5,226.68	0.00
tblGrading	MaterialExported	0.00	2,000.00
tblGrading	MaterialExported	0.00	2,000.00
tblProjectCharacteristics	CH4IntensityFactor	0	0.033
tblProjectCharacteristics	CO2IntensityFactor	0	203.98
tblProjectCharacteristics	N2OIntensityFactor	0	0.004
tblProjectCharacteristics	PrecipitationFrequency	0	64
tblVehicleTrips	ST_TR	4.91	3.84
tblVehicleTrips	SU_TR	4.09	3.84
tblVehicleTrips	WD_TR	5.44	3.84

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.6207	1.8373	1.9260	4.1300e-003	0.2802	0.0863	0.3664	0.1161	0.0809	0.1970	0.0000	369.0064	369.0064	0.0631	0.0101	373.5904
2023	1.2541	2.2445	3.0158	6.4700e-003	0.2439	0.1022	0.3461	0.0654	0.0967	0.1621	0.0000	576.9183	576.9183	0.0801	0.0150	583.3896
2024	0.5128	0.8164	1.1527	2.4900e-003	0.0952	0.0348	0.1300	0.0255	0.0329	0.0585	0.0000	222.2204	222.2204	0.0305	5.6100e-003	224.6552
Maximum	**1.2541**	**2.2445**	**3.0158**	**6.4700e-003**	**0.2802**	**0.1022**	**0.3664**	**0.1161**	**0.0967**	**0.1970**	**0.0000**	**576.9183**	**576.9183**	**0.0801**	**0.0150**	**583.3896**

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	0.6207	1.8373	1.9260	4.1300e-003	0.2802	0.0863	0.3664	0.1161	0.0809	0.1970	0.0000	369.0061	369.0061	0.0631	0.0101	373.5901
2023	1.2541	2.2445	3.0158	6.4700e-003	0.2439	0.1022	0.3461	0.0654	0.0967	0.1621	0.0000	576.9179	576.9179	0.0801	0.0150	583.3892
2024	0.5128	0.8164	1.1527	2.4900e-003	0.0952	0.0348	0.1300	0.0255	0.0329	0.0585	0.0000	222.2203	222.2203	0.0305	5.6100e-003	224.6550
Maximum	**1.2541**	**2.2445**	**3.0158**	**6.4700e-003**	**0.2802**	**0.1022**	**0.3664**	**0.1161**	**0.0967**	**0.1970**	**0.0000**	**576.9179**	**576.9179**	**0.0801**	**0.0150**	**583.3892**

Madrone Apartments - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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)
1	**5-1-2022**	**7-31-2022**	0.8810	0.8810
2	**8-1-2022**	**10-31-2022**	0.9468	0.9468
3	**11-1-2022**	**1-31-2023**	0.9295	0.9295
4	**2-1-2023**	**4-30-2023**	0.8571	0.8571
5	**5-1-2023**	**7-31-2023**	0.8825	0.8825
6	**8-1-2023**	**10-31-2023**	0.8843	0.8843
7	**11-1-2023**	**1-31-2024**	0.8742	0.8742
8	**2-1-2024**	**4-30-2024**	0.8276	0.8276
9	**5-1-2024**	**7-31-2024**	0.1999	0.1999
		Highest	0.9468	0.9468

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	1.7774	0.0345	2.6351	1.6700e-003		0.1234	0.1234		0.1234	0.1234	11.3518	7.6828	19.0347	0.0211	7.4000e-004	19.7845
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	89.0764	89.0764	0.0144	1.7500e-003	89.9572
Mobile	0.3209	0.3458	3.0696	6.4600e-003	0.8141	4.3100e-003	0.8184	0.2175	4.0200e-003	0.2215	0.0000	630.3076	630.3076	0.0382	0.0289	639.8865
Waste						0.0000	0.0000		0.0000	0.0000	23.2506	0.0000	23.2506	1.3741	0.0000	57.6023
Water						0.0000	0.0000		0.0000	0.0000	5.1469	11.4343	16.5812	0.5305	0.0127	33.6299
Total	**2.0983**	**0.3802**	**5.7047**	**8.1300e-003**	**0.8141**	**0.1277**	**0.9418**	**0.2175**	**0.1274**	**0.3449**	**39.7493**	**738.5011**	**778.2504**	**1.9783**	**0.0441**	**840.8605**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.2029	0.0213	1.8440	1.0000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	3.0201	3.0201	2.8800e-003	0.0000	3.0920
Energy	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
Mobile	0.3101	0.3281	2.9144	6.0300e-003	0.7580	4.0500e-003	0.7620	0.2025	3.7700e-003	0.2063	0.0000	588.2018	588.2018	0.0365	0.0275	597.2965
Waste						0.0000	0.0000		0.0000	0.0000	23.2506	0.0000	23.2506	1.3741	0.0000	57.6023
Water						0.0000	0.0000		0.0000	0.0000	4.1175	9.1474	13.2649	0.4244	0.0102	26.9039
Total	**1.5130**	**0.3494**	**4.7584**	**6.1300e-003**	**0.7580**	**0.0143**	**0.7722**	**0.2025**	**0.0140**	**0.2165**	**27.3681**	**600.3693**	**627.7374**	**1.8379**	**0.0376**	**684.8948**

	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	**27.90**	**8.12**	**16.59**	**24.60**	**6.90**	**88.80**	**18.00**	**6.90**	**88.99**	**37.22**	**31.15**	**18.70**	**19.34**	**7.10**	**14.77**	**18.55**

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	5/1/2022	5/27/2022	5	20	
2	Site Preparation	Site Preparation	5/28/2022	6/10/2022	5	10	
3	Grading	Grading	6/11/2022	7/8/2022	5	20	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	7/9/2022	7/15/2022	5	5	
5	Building Construction	Building Construction	7/16/2022	5/17/2024	5	480	
6	Architectural Coating	Architectural Coating	7/30/2022	5/31/2024	5	480	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 504,225; Residential Outdoor: 168,075; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	50.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	250.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	250.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	179.00	27.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	36.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-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					
Fugitive Dust					5.1400e-003	0.0000	5.1400e-003	7.8000e-004	0.0000	7.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**5.1400e-003**	**0.0124**	**0.0176**	**7.8000e-004**	**0.0116**	**0.0123**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated 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	1.2000e-004	4.3000e-003	9.2000e-004	2.0000e-005	4.2000e-004	4.0000e-005	4.6000e-004	1.2000e-004	4.0000e-005	1.5000e-004	0.0000	1.5671	1.5671	5.0000e-005	2.5000e-004	1.6424
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	4.1000e-004	3.0000e-004	3.5900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9533	0.9533	3.0000e-005	3.0000e-005	0.9622
Total	**5.3000e-004**	**4.6000e-003**	**4.5100e-003**	**3.0000e-005**	**1.6100e-003**	**5.0000e-005**	**1.6500e-003**	**4.4000e-004**	**5.0000e-005**	**4.7000e-004**	**0.0000**	**2.5204**	**2.5204**	**8.0000e-005**	**2.8000e-004**	**2.6046**

Mitigated Construction On-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					
Fugitive Dust					5.1400e-003	0.0000	5.1400e-003	7.8000e-004	0.0000	7.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**5.1400e-003**	**0.0124**	**0.0176**	**7.8000e-004**	**0.0116**	**0.0123**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

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	1.2000e-004	4.3000e-003	9.2000e-004	2.0000e-005	4.2000e-004	4.0000e-005	4.6000e-004	1.2000e-004	4.0000e-005	1.5000e-004	0.0000	1.5671	1.5671	5.0000e-005	2.5000e-004	1.6424
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	4.1000e-004	3.0000e-004	3.5900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9533	0.9533	3.0000e-005	3.0000e-005	0.9622
Total	**5.3000e-004**	**4.6000e-003**	**4.5100e-003**	**3.0000e-005**	**1.6100e-003**	**5.0000e-005**	**1.6500e-003**	**4.4000e-004**	**5.0000e-005**	**4.7000e-004**	**0.0000**	**2.5204**	**2.5204**	**8.0000e-005**	**2.8000e-004**	**2.6046**

3.3 Site Preparation - 2022

Unmitigated Construction On-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					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0903**	**8.0600e-003**	**0.0984**	**0.0497**	**7.4200e-003**	**0.0571**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated 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	5.8000e-004	0.0215	4.5800e-003	8.0000e-005	2.1100e-003	1.9000e-004	2.3100e-003	5.8000e-004	1.8000e-004	7.7000e-004	0.0000	7.8355	7.8355	2.6000e-004	1.2400e-003	8.2118
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	2.5000e-004	1.8000e-004	2.1500e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5720	0.5720	2.0000e-005	2.0000e-005	0.5773
Total	**8.3000e-004**	**0.0217**	**6.7300e-003**	**9.0000e-005**	**2.8200e-003**	**1.9000e-004**	**3.0300e-003**	**7.7000e-004**	**1.8000e-004**	**9.6000e-004**	**0.0000**	**8.4075**	**8.4075**	**2.8000e-004**	**1.2600e-003**	**8.7892**

Mitigated Construction On-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					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0903**	**8.0600e-003**	**0.0984**	**0.0497**	**7.4200e-003**	**0.0571**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

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	5.8000e-004	0.0215	4.5800e-003	8.0000e-005	2.1100e-003	1.9000e-004	2.3100e-003	5.8000e-004	1.8000e-004	7.7000e-004	0.0000	7.8355	7.8355	2.6000e-004	1.2400e-003	8.2118
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	2.5000e-004	1.8000e-004	2.1500e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5720	0.5720	2.0000e-005	2.0000e-005	0.5773
Total	**8.3000e-004**	**0.0217**	**6.7300e-003**	**9.0000e-005**	**2.8200e-003**	**1.9000e-004**	**3.0300e-003**	**7.7000e-004**	**1.8000e-004**	**9.6000e-004**	**0.0000**	**8.4075**	**8.4075**	**2.8000e-004**	**1.2600e-003**	**8.7892**

3.4 Grading - 2022

Unmitigated Construction On-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					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003	0.0000	26.0548	26.0548	8.4300e-003	0.0000	26.2654
Total	**0.0195**	**0.2086**	**0.1527**	**3.0000e-004**	**0.0655**	**9.4100e-003**	**0.0749**	**0.0337**	**8.6600e-003**	**0.0423**	**0.0000**	**26.0548**	**26.0548**	**8.4300e-003**	**0.0000**	**26.2654**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated 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	5.8000e-004	0.0215	4.5800e-003	8.0000e-005	2.1100e-003	1.9000e-004	2.3100e-003	5.8000e-004	1.8000e-004	7.7000e-004	0.0000	7.8355	7.8355	2.6000e-004	1.2400e-003	8.2118
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	4.1000e-004	3.0000e-004	3.5900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9533	0.9533	3.0000e-005	3.0000e-005	0.9622
Total	**9.9000e-004**	**0.0218**	**8.1700e-003**	**9.0000e-005**	**3.3000e-003**	**2.0000e-004**	**3.5000e-003**	**9.0000e-004**	**1.9000e-004**	**1.0900e-003**	**0.0000**	**8.7888**	**8.7888**	**2.9000e-004**	**1.2700e-003**	**9.1740**

Mitigated Construction On-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					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003	0.0000	26.0547	26.0547	8.4300e-003	0.0000	26.2654
Total	**0.0195**	**0.2086**	**0.1527**	**3.0000e-004**	**0.0655**	**9.4100e-003**	**0.0749**	**0.0337**	**8.6600e-003**	**0.0423**	**0.0000**	**26.0547**	**26.0547**	**8.4300e-003**	**0.0000**	**26.2654**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

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	5.8000e-004	0.0215	4.5800e-003	8.0000e-005	2.1100e-003	1.9000e-004	2.3100e-003	5.8000e-004	1.8000e-004	7.7000e-004	0.0000	7.8355	7.8355	2.6000e-004	1.2400e-003	8.2118
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	4.1000e-004	3.0000e-004	3.5900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9533	0.9533	3.0000e-005	3.0000e-005	0.9622
Total	**9.9000e-004**	**0.0218**	**8.1700e-003**	**9.0000e-005**	**3.3000e-003**	**2.0000e-004**	**3.5000e-003**	**9.0000e-004**	**1.9000e-004**	**1.0900e-003**	**0.0000**	**8.7888**	**8.7888**	**2.9000e-004**	**1.2700e-003**	**9.1740**

3.5 Paving - 2022

Unmitigated Construction On-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					
Off-Road	2.7600e-003	0.0278	0.0365	6.0000e-005		1.4200e-003	1.4200e-003		1.3100e-003	1.3100e-003	0.0000	5.0069	5.0069	1.6200e-003	0.0000	5.0474
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.7600e-003**	**0.0278**	**0.0365**	**6.0000e-005**		**1.4200e-003**	**1.4200e-003**		**1.3100e-003**	**1.3100e-003**	**0.0000**	**5.0069**	**5.0069**	**1.6200e-003**	**0.0000**	**5.0474**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Unmitigated 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	1.0000e-004	7.0000e-005	9.0000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2383	0.2383	1.0000e-005	1.0000e-005	0.2406
Total	**1.0000e-004**	**7.0000e-005**	**9.0000e-004**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2383**	**0.2383**	**1.0000e-005**	**1.0000e-005**	**0.2406**

Mitigated Construction On-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					
Off-Road	2.7600e-003	0.0278	0.0365	6.0000e-005		1.4200e-003	1.4200e-003		1.3100e-003	1.3100e-003	0.0000	5.0069	5.0069	1.6200e-003	0.0000	5.0474
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.7600e-003**	**0.0278**	**0.0365**	**6.0000e-005**		**1.4200e-003**	**1.4200e-003**		**1.3100e-003**	**1.3100e-003**	**0.0000**	**5.0069**	**5.0069**	**1.6200e-003**	**0.0000**	**5.0474**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

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	1.0000e-004	7.0000e-005	9.0000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2383	0.2383	1.0000e-005	1.0000e-005	0.2406
Total	**1.0000e-004**	**7.0000e-005**	**9.0000e-004**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2383**	**0.2383**	**1.0000e-005**	**1.0000e-005**	**0.2406**

3.6 Building Construction - 2022

Unmitigated Construction On-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					
Off-Road	0.1024	0.9369	0.9818	1.6200e-003		0.0485	0.0485		0.0457	0.0457	0.0000	139.0352	139.0352	0.0333	0.0000	139.8679
Total	**0.1024**	**0.9369**	**0.9818**	**1.6200e-003**		**0.0485**	**0.0485**		**0.0457**	**0.0457**	**0.0000**	**139.0352**	**139.0352**	**0.0333**	**0.0000**	**139.8679**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2022

Unmitigated 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	3.4700e-003	0.0905	0.0264	3.4000e-004	0.0106	9.3000e-004	0.0116	3.0700e-003	8.9000e-004	3.9700e-003	0.0000	33.3643	33.3643	7.3000e-004	4.9500e-003	34.8567
Worker	0.0295	0.0213	0.2569	7.4000e-004	0.0849	4.6000e-004	0.0853	0.0226	4.2000e-004	0.0230	0.0000	68.2542	68.2542	2.1200e-003	1.9700e-003	68.8940
Total	**0.0330**	**0.1118**	**0.2832**	**1.0800e-003**	**0.0955**	**1.3900e-003**	**0.0969**	**0.0257**	**1.3100e-003**	**0.0270**	**0.0000**	**101.6186**	**101.6186**	**2.8500e-003**	**6.9200e-003**	**103.7507**

Mitigated Construction On-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					
Off-Road	0.1024	0.9369	0.9818	1.6200e-003		0.0485	0.0485		0.0457	0.0457	0.0000	139.0350	139.0350	0.0333	0.0000	139.8677
Total	**0.1024**	**0.9369**	**0.9818**	**1.6200e-003**		**0.0485**	**0.0485**		**0.0457**	**0.0457**	**0.0000**	**139.0350**	**139.0350**	**0.0333**	**0.0000**	**139.8677**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2022

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	3.4700e-003	0.0905	0.0264	3.4000e-004	0.0106	9.3000e-004	0.0116	3.0700e-003	8.9000e-004	3.9700e-003	0.0000	33.3643	33.3643	7.3000e-004	4.9500e-003	34.8567
Worker	0.0295	0.0213	0.2569	7.4000e-004	0.0849	4.6000e-004	0.0853	0.0226	4.2000e-004	0.0230	0.0000	68.2542	68.2542	2.1200e-003	1.9700e-003	68.8940
Total	**0.0330**	**0.1118**	**0.2832**	**1.0800e-003**	**0.0955**	**1.3900e-003**	**0.0969**	**0.0257**	**1.3100e-003**	**0.0270**	**0.0000**	**101.6186**	**101.6186**	**2.8500e-003**	**6.9200e-003**	**103.7507**

3.6 Building Construction - 2023

Unmitigated Construction On-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					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3462**	**301.3462**	**0.0717**	**0.0000**	**303.1383**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2023

Unmitigated 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	3.7400e-003	0.1561	0.0488	7.1000e-004	0.0230	9.1000e-004	0.0239	6.6600e-003	8.7000e-004	7.5300e-003	0.0000	69.2858	69.2858	1.4100e-003	0.0103	72.3755
Worker	0.0596	0.0408	0.5161	1.5500e-003	0.1839	9.5000e-004	0.1848	0.0489	8.7000e-004	0.0498	0.0000	144.1109	144.1109	4.1500e-003	3.9500e-003	145.3928
Total	**0.0633**	**0.1968**	**0.5649**	**2.2600e-003**	**0.2069**	**1.8600e-003**	**0.2088**	**0.0556**	**1.7400e-003**	**0.0573**	**0.0000**	**213.3967**	**213.3967**	**5.5600e-003**	**0.0142**	**217.7683**

Mitigated Construction On-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					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3458**	**301.3458**	**0.0717**	**0.0000**	**303.1380**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2023

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	3.7400e-003	0.1561	0.0488	7.1000e-004	0.0230	9.1000e-004	0.0239	6.6600e-003	8.7000e-004	7.5300e-003	0.0000	69.2858	69.2858	1.4100e-003	0.0103	72.3755
Worker	0.0596	0.0408	0.5161	1.5500e-003	0.1839	9.5000e-004	0.1848	0.0489	8.7000e-004	0.0498	0.0000	144.1109	144.1109	4.1500e-003	3.9500e-003	145.3928
Total	**0.0633**	**0.1968**	**0.5649**	**2.2600e-003**	**0.2069**	**1.8600e-003**	**0.2088**	**0.0556**	**1.7400e-003**	**0.0573**	**0.0000**	**213.3967**	**213.3967**	**5.5600e-003**	**0.0142**	**217.7683**

3.6 Building Construction - 2024

Unmitigated Construction On-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					
Off-Road	0.0736	0.6722	0.8083	1.3500e-003		0.0307	0.0307		0.0288	0.0288	0.0000	115.9246	115.9246	0.0274	0.0000	116.6099
Total	**0.0736**	**0.6722**	**0.8083**	**1.3500e-003**		**0.0307**	**0.0307**		**0.0288**	**0.0288**	**0.0000**	**115.9246**	**115.9246**	**0.0274**	**0.0000**	**116.6099**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2024

Unmitigated 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	1.4000e-003	0.0601	0.0184	2.7000e-004	8.8600e-003	3.5000e-004	9.2100e-003	2.5600e-003	3.4000e-004	2.9000e-003	0.0000	26.2331	26.2331	5.4000e-004	3.8800e-003	27.4029
Worker	0.0214	0.0140	0.1854	5.8000e-004	0.0707	3.5000e-004	0.0711	0.0188	3.2000e-004	0.0191	0.0000	54.0602	54.0602	1.4500e-003	1.4200e-003	54.5186
Total	**0.0228**	**0.0741**	**0.2038**	**8.5000e-004**	**0.0796**	**7.0000e-004**	**0.0803**	**0.0214**	**6.6000e-004**	**0.0220**	**0.0000**	**80.2933**	**80.2933**	**1.9900e-003**	**5.3000e-003**	**81.9215**

Mitigated Construction On-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					
Off-Road	0.0736	0.6722	0.8083	1.3500e-003		0.0307	0.0307		0.0288	0.0288	0.0000	115.9244	115.9244	0.0274	0.0000	116.6097
Total	**0.0736**	**0.6722**	**0.8083**	**1.3500e-003**		**0.0307**	**0.0307**		**0.0288**	**0.0288**	**0.0000**	**115.9244**	**115.9244**	**0.0274**	**0.0000**	**116.6097**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2024

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	1.4000e-003	0.0601	0.0184	2.7000e-004	8.8600e-003	3.5000e-004	9.2100e-003	2.5600e-003	3.4000e-004	2.9000e-003	0.0000	26.2331	26.2331	5.4000e-004	3.8800e-003	27.4029
Worker	0.0214	0.0140	0.1854	5.8000e-004	0.0707	3.5000e-004	0.0711	0.0188	3.2000e-004	0.0191	0.0000	54.0602	54.0602	1.4500e-003	1.4200e-003	54.5186
Total	**0.0228**	**0.0741**	**0.2038**	**8.5000e-004**	**0.0796**	**7.0000e-004**	**0.0803**	**0.0214**	**6.6000e-004**	**0.0220**	**0.0000**	**80.2933**	**80.2933**	**1.9900e-003**	**5.3000e-003**	**81.9215**

3.7 Architectural Coating - 2022

Unmitigated Construction On-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					
Archit. Coating	0.4017					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0113	0.0775	0.0998	1.6000e-004		4.4900e-003	4.4900e-003		4.4900e-003	4.4900e-003	0.0000	14.0429	14.0429	9.1000e-004	0.0000	14.0658
Total	**0.4129**	**0.0775**	**0.0998**	**1.6000e-004**		**4.4900e-003**	**4.4900e-003**		**4.4900e-003**	**4.4900e-003**	**0.0000**	**14.0429**	**14.0429**	**9.1000e-004**	**0.0000**	**14.0658**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2022

Unmitigated 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	5.4400e-003	3.9200e-003	0.0474	1.4000e-004	0.0157	8.0000e-005	0.0157	4.1600e-003	8.0000e-005	4.2400e-003	0.0000	12.5832	12.5832	3.9000e-004	3.6000e-004	12.7011
Total	**5.4400e-003**	**3.9200e-003**	**0.0474**	**1.4000e-004**	**0.0157**	**8.0000e-005**	**0.0157**	**4.1600e-003**	**8.0000e-005**	**4.2400e-003**	**0.0000**	**12.5832**	**12.5832**	**3.9000e-004**	**3.6000e-004**	**12.7011**

Mitigated Construction On-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					
Archit. Coating	0.4017					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0113	0.0775	0.0998	1.6000e-004		4.4900e-003	4.4900e-003		4.4900e-003	4.4900e-003	0.0000	14.0429	14.0429	9.1000e-004	0.0000	14.0657
Total	**0.4129**	**0.0775**	**0.0998**	**1.6000e-004**		**4.4900e-003**	**4.4900e-003**		**4.4900e-003**	**4.4900e-003**	**0.0000**	**14.0429**	**14.0429**	**9.1000e-004**	**0.0000**	**14.0657**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2022

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	5.4400e-003	3.9200e-003	0.0474	1.4000e-004	0.0157	8.0000e-005	0.0157	4.1600e-003	8.0000e-005	4.2400e-003	0.0000	12.5832	12.5832	3.9000e-004	3.6000e-004	12.7011
Total	**5.4400e-003**	**3.9200e-003**	**0.0474**	**1.4000e-004**	**0.0157**	**8.0000e-005**	**0.0157**	**4.1600e-003**	**8.0000e-005**	**4.2400e-003**	**0.0000**	**12.5832**	**12.5832**	**3.9000e-004**	**3.6000e-004**	**12.7011**

3.7 Architectural Coating - 2023

Unmitigated Construction On-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					
Archit. Coating	0.9494					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	**0.9744**	**0.1694**	**0.2355**	**3.9000e-004**		**9.2100e-003**	**9.2100e-003**		**9.2100e-003**	**9.2100e-003**	**0.0000**	**33.1923**	**33.1923**	**1.9900e-003**	**0.0000**	**33.2419**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated 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	0.0120	8.2000e-003	0.1038	3.1000e-004	0.0370	1.9000e-004	0.0372	9.8400e-003	1.8000e-004	0.0100	0.0000	28.9832	28.9832	8.3000e-004	8.0000e-004	29.2410
Total	**0.0120**	**8.2000e-003**	**0.1038**	**3.1000e-004**	**0.0370**	**1.9000e-004**	**0.0372**	**9.8400e-003**	**1.8000e-004**	**0.0100**	**0.0000**	**28.9832**	**28.9832**	**8.3000e-004**	**8.0000e-004**	**29.2410**

Mitigated Construction On-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					
Archit. Coating	0.9494					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2354	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	**0.9744**	**0.1694**	**0.2354**	**3.9000e-004**		**9.2100e-003**	**9.2100e-003**		**9.2100e-003**	**9.2100e-003**	**0.0000**	**33.1923**	**33.1923**	**1.9900e-003**	**0.0000**	**33.2419**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

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	0.0120	8.2000e-003	0.1038	3.1000e-004	0.0370	1.9000e-004	0.0372	9.8400e-003	1.8000e-004	0.0100	0.0000	28.9832	28.9832	8.3000e-004	8.0000e-004	29.2410
Total	**0.0120**	**8.2000e-003**	**0.1038**	**3.1000e-004**	**0.0370**	**1.9000e-004**	**0.0372**	**9.8400e-003**	**1.8000e-004**	**0.0100**	**0.0000**	**28.9832**	**28.9832**	**8.3000e-004**	**8.0000e-004**	**29.2410**

3.7 Architectural Coating - 2024

Unmitigated Construction On-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					
Archit. Coating	0.4017					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.9400e-003	0.0670	0.0996	1.6000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	14.0429	14.0429	7.9000e-004	0.0000	14.0627
Total	**0.4116**	**0.0670**	**0.0996**	**1.6000e-004**		**3.3500e-003**	**3.3500e-003**		**3.3500e-003**	**3.3500e-003**	**0.0000**	**14.0429**	**14.0429**	**7.9000e-004**	**0.0000**	**14.0627**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Unmitigated 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	4.7400e-003	3.1000e-003	0.0410	1.3000e-004	0.0157	8.0000e-005	0.0157	4.1600e-003	7.0000e-005	4.2300e-003	0.0000	11.9597	11.9597	3.2000e-004	3.1000e-004	12.0611
Total	**4.7400e-003**	**3.1000e-003**	**0.0410**	**1.3000e-004**	**0.0157**	**8.0000e-005**	**0.0157**	**4.1600e-003**	**7.0000e-005**	**4.2300e-003**	**0.0000**	**11.9597**	**11.9597**	**3.2000e-004**	**3.1000e-004**	**12.0611**

Mitigated Construction On-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					
Archit. Coating	0.4017					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.9400e-003	0.0670	0.0996	1.6000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	14.0429	14.0429	7.9000e-004	0.0000	14.0627
Total	**0.4116**	**0.0670**	**0.0996**	**1.6000e-004**		**3.3500e-003**	**3.3500e-003**		**3.3500e-003**	**3.3500e-003**	**0.0000**	**14.0429**	**14.0429**	**7.9000e-004**	**0.0000**	**14.0627**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

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	4.7400e-003	3.1000e-003	0.0410	1.3000e-004	0.0157	8.0000e-005	0.0157	4.1600e-003	7.0000e-005	4.2300e-003	0.0000	11.9597	11.9597	3.2000e-004	3.1000e-004	12.0611
Total	**4.7400e-003**	**3.1000e-003**	**0.0410**	**1.3000e-004**	**0.0157**	**8.0000e-005**	**0.0157**	**4.1600e-003**	**7.0000e-005**	**4.2300e-003**	**0.0000**	**11.9597**	**11.9597**	**3.2000e-004**	**3.1000e-004**	**12.0611**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.3101	0.3281	2.9144	6.0300e-003	0.7580	4.0500e-003	0.7620	0.2025	3.7700e-003	0.2063	0.0000	588.2018	588.2018	0.0365	0.0275	597.2965
Unmitigated	0.3209	0.3458	3.0696	6.4600e-003	0.8141	4.3100e-003	0.8184	0.2175	4.0200e-003	0.2215	0.0000	630.3076	630.3076	0.0382	0.0289	639.8865

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	956.16	956.16	956.16	2,208,354	2,055,978
Total	956.16	956.16	956.16	2,208,354	2,055,978

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
Apartments Mid Rise	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
Apartments Mid Rise	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638

5.0 Energy Detail

Historical Energy Use: N

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	89.0764	89.0764	0.0144	1.7500e-003	89.9572
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

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					
Apartments Mid Rise	0	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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

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					
Apartments Mid Rise	0	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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	962741	89.0764	0.0144	1.7500e-003	89.9572
Total		**89.0764**	**0.0144**	**1.7500e-003**	**89.9572**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	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	1.2029	0.0213	1.8440	1.0000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	3.0201	3.0201	2.8800e-003	0.0000	3.0920
Unmitigated	1.7774	0.0345	2.6351	1.6700e-003		0.1234	0.1234		0.1234	0.1234	11.3518	7.6828	19.0347	0.0211	7.4000e-004	19.7845

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.1753					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9725					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.5745	0.0132	0.7911	1.5700e-003		0.1131	0.1131		0.1131	0.1131	11.3518	4.6628	16.0146	0.0182	7.4000e-004	16.6925
Landscaping	0.0552	0.0213	1.8440	1.0000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	3.0201	3.0201	2.8800e-003	0.0000	3.0920
Total	**1.7774**	**0.0345**	**2.6351**	**1.6700e-003**		**0.1234**	**0.1234**		**0.1234**	**0.1234**	**11.3518**	**7.6828**	**19.0347**	**0.0211**	**7.4000e-004**	**19.7845**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.1753					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9725					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0552	0.0213	1.8440	1.0000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	3.0201	3.0201	2.8800e-003	0.0000	3.0920
Total	**1.2029**	**0.0213**	**1.8440**	**1.0000e-004**		**0.0103**	**0.0103**		**0.0103**	**0.0103**	**0.0000**	**3.0201**	**3.0201**	**2.8800e-003**	**0.0000**	**3.0920**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	13.2649	0.4244	0.0102	26.9039
Unmitigated	16.5812	0.5305	0.0127	33.6299

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	16.2234 / 10.2278	16.5812	0.5305	0.0127	33.6299
Total		**16.5812**	**0.5305**	**0.0127**	**33.6299**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	12.9787 / 8.18221	13.2649	0.4244	0.0102	26.9039
Total		**13.2649**	**0.4244**	**0.0102**	**26.9039**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	23.2506	1.3741	0.0000	57.6023
Unmitigated	23.2506	1.3741	0.0000	57.6023

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	114.54	23.2506	1.3741	0.0000	57.6023
Total		**23.2506**	**1.3741**	**0.0000**	**57.6023**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	114.54	23.2506	1.3741	0.0000	57.6023
Total		**23.2506**	**1.3741**	**0.0000**	**57.6023**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

GHG Emissions Reductions from Replacing Gas Vehicle with EV			
	Value	**Units**	**Notes**
PG&E Emission Factor in 2024	203.98	lbs CO2/MWh	See CalEEMod Run for PG&E Emission factor
PG&E Emission Factor in 2024	0.0925247	MT CO2/MWh	unit conversion
Fuel Economy of EV	0.25	kWh/mile	National Renewable Energy Laboratory. 2018. California Plug-In Electric Vehicle Infrastructure Projections: 2017-2025 (Table C.1).
Fuel Economy of EV	0.00025	MWh/mile	unit conversion
Miles of Charge per kWh	4	miles/kWh	unit inversion
Gasoline CO2 Emissions	221	grams CO2/mile	EMFAC2017 with SAFE Adjustment, running exhaust emission rate for CO2 for light duty gasoline and diesel-fueled vehicles
Charge Rate	6.25	kW	Assumption that Level 2 (240V) charging stations will be installed
Hours of Charging/Station/Day	4	hour	Assumption of use
Total Electricity Consumed from the Charging Stations per Year	9125	kWh/year	
Annual VMT Reduction per Charging Station	36500	miles/year	
Number of On-site Charging Stations	9	spaces	
Annual VMT Reduction from All On-site Stations	328500	miles	
GHG Emissions from Gasoline Vehicles	72.60	MT CO2	
GHG Emissions from EV Vehicles	7.60	MT CO2	
GHG Emissions Reduction from All Stations	65.00	MT CO2	
GHG Emissions Reduction per Station	7.22	MT CO2	

Appendix B

Tree Report



Tree Summary Report

June 9, 2021
Tree Count: 118

Jemcor
Monterey Road
Morgan Hill
95037

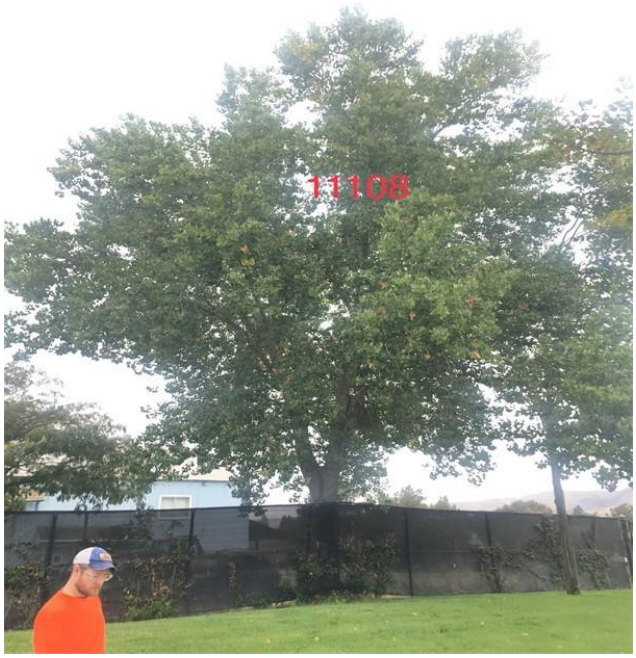
Fremont cottonwood Tree Tag Number 11108

18960 Monterey Road

Tree Details

Scientific Name:	Populus fremontii
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	50
DBH:	18
Crown Spread:	40
Tree Work-Other:	Remove
On the property line?:	Yes
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 11109

18970 Monterey Road

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	20
DBH:	18
Crown Spread:	30
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 11110

18970 Monterey Road

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Good
Tree Height (Estimated):	30
DBH:	22.47
Crown Spread:	28
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 11111

18970 Monterey Road

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Good
Tree Height (Estimated):	35
DBH:	18.5
Crown Spread:	30
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 11112

18980 Monterey Road

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Good
Tree Height (Estimated):	45
DBH:	31.11
Crown Spread:	50
Tree Work-Other:	
On the property line?:	No
Observation Comments:	Adjacent line

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 11113

19010 Monterey Road

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	30
DBH:	12
Crown Spread:	40
Tree Work-Other:	Remove
On the property line?:	Yes
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 11114

19095 Rose Lane

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Good
Tree Height (Estimated):	50
DBH:	26
Crown Spread:	60
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 11115

19095 Rose Lane

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	25
DBH:	10
Crown Spread:	20
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 11116

19095 Rose Lane

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	18
DBH:	12
Crown Spread:	18
Tree Work-Other:	
On the property line?:	No
Observation Comments:	Adjacent line

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 11117

19095 Rose Lane

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	30
DBH:	10
Crown Spread:	24
Tree Work-Other:	
On the property line?:	No
Observation Comments:	Adjacent line

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 11118

19095 Rose Lane

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	18
DBH:	8
Crown Spread:	12
Tree Work-Other:	
On the property line?:	No
Observation Comments:	Adjacent line

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 11119

1110 Monterey Road

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	25
DBH:	19.65
Crown Spread:	24
Tree Work-Other:	Remove
On the property line?:	Yes
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 11120

1110 Monterey Road

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	25
DBH:	22.67
Crown Spread:	38
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 11121

19022 Taylor Avenue

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	16
DBH:	6.4
Crown Spread:	14
Tree Work-Other:	Remove
On the property line?:	Yes
Observation Comments:	

Photos Street View Map View



Mimosa Tree Tag Number 12201

18960 Monterey Road

Tree Details

Scientific Name:	Albizia julibrissin
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	23
DBH:	11.73
Crown Spread:	22
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 12202

18970 Monterey Road

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	35
DBH:	16.5
Crown Spread:	40
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 12203

18970 Monterey Road

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	35
DBH:	12
Crown Spread:	40
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



California palm Tree Tag Number 12204

18980 Monterey Road

Tree Details

Scientific Name:	Washingtonia filifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	12
DBH:	3
Crown Spread:	6
Tree Work-Other:	
On the property line?:	No
Observation Comments:	

Photos Street View Map View



California palm Tree Tag Number 12205

18980 Monterey Road

Tree Details

Scientific Name:	Washingtonia filifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	15
DBH:	6
Crown Spread:	12
Tree Work-Other:	
On the property line?:	No
Observation Comments:	

Photos Street View Map View



California palm Tree Tag Number 12206

18980 Monterey Road

Tree Details

Scientific Name:	Washingtonia filifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	22
DBH:	8
Crown Spread:	10
Tree Work-Other:	
On the property line?:	No
Observation Comments:	

Photos Street View Map View



California palm Tree Tag Number 12207

18980 Monterey Road

Tree Details

Scientific Name:	Washingtonia filifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	28
DBH:	11
Crown Spread:	12
Tree Work-Other:	
On the property line?:	No
Observation Comments:	

Photos Street View Map View



California palm Tree Tag Number 12208

18980 Monterey Road

Tree Details

Scientific Name:	Washingtonia filifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	30
DBH:	11
Crown Spread:	14
Tree Work-Other:	
On the property line?:	No
Observation Comments:	

Photos Street View Map View



California palm Tree Tag Number 12209

18980 Monterey Road

Tree Details

Scientific Name:	Washingtonia filifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	30
DBH:	11
Crown Spread:	14
Tree Work-Other:	
On the property line?:	No
Observation Comments:	

Photos Street View Map View



California palm Tree Tag Number 12210

18980 Monterey Road

Tree Details

Scientific Name:	Washingtonia filifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	32
DBH:	11
Crown Spread:	15
Tree Work-Other:	
On the property line?:	No
Observation Comments:	

Photos Street View Map View



California palm Tree Tag Number 12211

18980 Monterey Road

Tree Details

Scientific Name:	Washingtonia filifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	15
DBH:	8.66
Crown Spread:	10
Tree Work-Other:	
On the property line?:	No
Observation Comments:	

Photos Street View Map View



California palm Tree Tag Number 12212

18980 Monterey Road

Tree Details

Scientific Name:	Washingtonia filifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	15
DBH:	8.12
Crown Spread:	10
Tree Work-Other:	
On the property line?:	No
Observation Comments:	

Photos Street View Map View



California palm Tree Tag Number 12213

18980 Monterey Road

Tree Details

Scientific Name:	Washingtonia filifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	33
DBH:	20
Crown Spread:	14
Tree Work-Other:	
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Almond Tree Tag Number 12214

18980 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	35
DBH:	19
Crown Spread:	35
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Almond Tree Tag Number 12215

18980 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	26
DBH:	20.01
Crown Spread:	30
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Almond Tree Tag Number 12216

18980 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	32
DBH:	22
Crown Spread:	30
Tree Work-Other:	Remove
On the property line?:	Yes
Observation Comments:	

Photos Street View Map View



Almond Tree Tag Number 12217

19010 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	20
DBH:	12.17
Crown Spread:	18
Tree Work-Other:	Remove
On the property line?:	Yes
Observation Comments:	

Photos Street View Map View



Almond Tree Tag Number 12218

19010 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	20
DBH:	11.96
Crown Spread:	18
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Almond Tree Tag Number 12219

19010 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	28
DBH:	11.27
Crown Spread:	18
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Almond Tree Tag Number 12220

19010 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	25
DBH:	9
Crown Spread:	15
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	Tree is on the line

Photos Street View Map View



Almond Tree Tag Number 12221

19010 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	30
DBH:	14.42
Crown Spread:	35
Tree Work-Other:	Remove
On the property line?:	Yes
Observation Comments:	

Photos Street View Map View



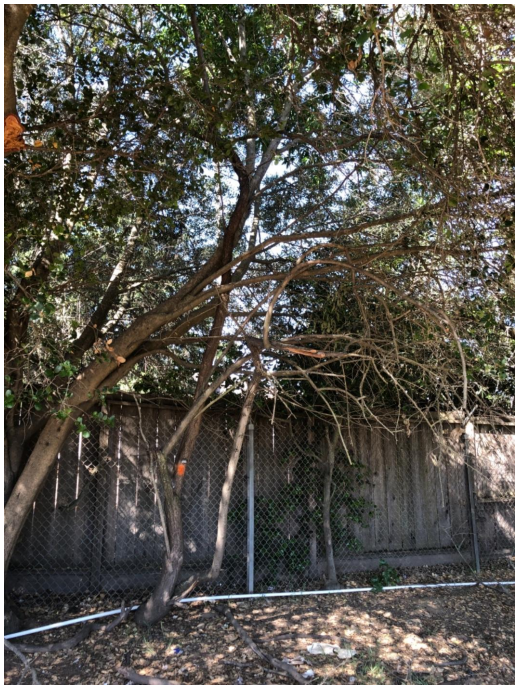
Almond Tree Tag Number 12222

19010 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	30
DBH:	4.9
Crown Spread:	35
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Almond Tree Tag Number 12223

19040 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	20
DBH:	7.68
Crown Spread:	18
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Almond Tree Tag Number 12224

19040 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	25
DBH:	10
Crown Spread:	30
Tree Work-Other:	Remove
On the property line?:	Yes
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 12225

19095 Rose Lane

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	25
DBH:	
Crown Spread:	18
Tree Work-Other:	
On the property line?:	No
Observation Comments:	Adjacent line

Photos Street View Map View



Black walnut Tree Tag Number 12226

19095 Rose Lane

Tree Details

Scientific Name:	Juglans nigra
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	25
DBH:	
Crown Spread:	20
Tree Work-Other:	
On the property line?:	No
Observation Comments:	Adjacent line

Photos Street View Map View



Black walnut Tree Tag Number 12227

19095 Rose Lane

Tree Details

Scientific Name:	Juglans nigra
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	25
DBH:	
Crown Spread:	20
Tree Work-Other:	
On the property line?:	No
Observation Comments:	Adjacent line

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 12228

19095 Rose Lane

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	20
DBH:	
Crown Spread:	20
Tree Work-Other:	
On the property line?:	No
Observation Comments:	Adjacent

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 12229

19095 Rose Lane

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	14
DBH:	
Crown Spread:	10
Tree Work-Other:	
On the property line?:	No
Observation Comments:	Adjacent line

Photos Street View Map View



Almond Tree Tag Number 12230

19095 Rose Lane

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	16
DBH:	7.14
Crown Spread:	15
Tree Work-Other:	Remove
On the property line?:	Yes
Observation Comments:	

Photos Street View Map View



Almond Tree Tag Number 12231

1110 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	18
DBH:	14.46
Crown Spread:	22
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	Will be removed

Photos Street View Map View



Almond Tree Tag Number 12232

1110 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	22
DBH:	15.3
Crown Spread:	15
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Almond Tree Tag Number 12233

1110 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	23
DBH:	11.05
Crown Spread:	6
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Almond Tree Tag Number 12234

1110 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	18
DBH:	9.85
Crown Spread:	5
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Coast redwood Tree Tag Number 12235

210 Ginger Way

Tree Details

Scientific Name:	Sequoia sempervirens
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	35
DBH:	12
Crown Spread:	22
Tree Work-Other:	
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Olive Tree Tag Number 12236

19055 Taylor Avenue

Tree Details

Scientific Name:	Olea europaea
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	14
DBH:	7.94
Crown Spread:	25
Tree Work-Other:	Remove
On the property line?:	Yes
Observation Comments:	

Photos Street View Map View



Monterey pine Tree Tag Number 12237

18960 Monterey Road

Tree Details

Scientific Name:	Pinus radiata
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	14
DBH:	7
Crown Spread:	12
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Almond Tree Tag Number 12238

18960 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	25
DBH:	15
Crown Spread:	12
Tree Work-Other:	Remove
On the property line?:	Yes
Observation Comments:	

Photos Street View Map View



Almond Tree Tag Number 12239

18960 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	14
DBH:	7
Crown Spread:	10
Tree Work-Other:	Remove
On the property line?:	No
Observation Comments:	

Photos Street View Map View



Almond Tree Tag Number 12240

1110 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	12
DBH:	3.61
Crown Spread:	10
Tree Work-Other:	Remove
On the property line?:	Yes
Observation Comments:	

Photos Street View Map View



Almond Tree Tag Number 12241

1110 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	25
DBH:	12.12
Crown Spread:	32
Tree Work-Other:	Remove
On the property line?:	Yes
Observation Comments:	

Photos Street View Map View



Almond Tree Tag Number 12242

1110 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	14
DBH:	8.66
Crown Spread:	20
Tree Work-Other:	Remove
On the property line?:	Yes
Observation Comments:	

Photos Street View Map View



Common crabapple Tree Tag Number 12243

18970 Monterey Road

Tree Details

Scientific Name:	Malus sylvestris
Status:	Alive
Condition:	Good
Tree Height (Estimated):	12
DBH:	6
Crown Spread:	16
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Common crabapple Tree Tag Number 12244

18970 Monterey Road

Tree Details

Scientific Name:	Malus sylvestris
Status:	Alive
Condition:	Good
Tree Height (Estimated):	10
DBH:	5
Crown Spread:	15
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Common crabapple Tree Tag Number 12245

18970 Monterey Road

Tree Details

Scientific Name:	Malus sylvestris
Status:	Alive
Condition:	Good
Tree Height (Estimated):	10
DBH:	5
Crown Spread:	12
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Tulip tree Tree Tag Number 12246

18960 Monterey Road

Tree Details

Scientific Name:	Liriodendron tulipifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	28
DBH:	10.5
Crown Spread:	14
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Tulip tree Tree Tag Number 12247

18960 Monterey Road

Tree Details

Scientific Name:	Liriodendron tulipifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	32
DBH:	9
Crown Spread:	14
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Tulip tree Tree Tag Number 12248

18960 Monterey Road

Tree Details

Scientific Name:	Liriodendron tulipifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	32
DBH:	10
Crown Spread:	14
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Tulip tree Tree Tag Number 12249

18960 Monterey Road

Tree Details

Scientific Name:	Liriodendron tulipifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	32
DBH:	11
Crown Spread:	14
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Tulip tree Tree Tag Number 12250

18960 Monterey Road

Tree Details

Scientific Name:	Liriodendron tulipifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	32
DBH:	11
Crown Spread:	14
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Tulip tree Tree Tag Number 12251

18960 Monterey Road

Tree Details

Scientific Name:	Liriodendron tulipifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	32
DBH:	12
Crown Spread:	14
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Tulip tree Tree Tag Number 12252

18960 Monterey Road

Tree Details

Scientific Name:	Liriodendron tulipifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	32
DBH:	11
Crown Spread:	16
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Tulip tree Tree Tag Number 12253

18960 Monterey Road

Tree Details

Scientific Name:	Liriodendron tulipifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	40
DBH:	11
Crown Spread:	16
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Tulip tree Tree Tag Number 12254

18960 Monterey Road

Tree Details

Scientific Name:	Liriodendron tulipifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	10
DBH:	1
Crown Spread:	5
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Tulip tree Tree Tag Number 12255

18960 Monterey Road

Tree Details

Scientific Name:	Liriodendron tulipifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	36
DBH:	11
Crown Spread:	15
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Tulip tree Tree Tag Number 12256

18960 Monterey Road

Tree Details

Scientific Name:	Liriodendron tulipifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	30
DBH:	11
Crown Spread:	16
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Tulip tree Tree Tag Number 12257

18960 Monterey Road

Tree Details

Scientific Name:	Liriodendron tulipifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	30
DBH:	11
Crown Spread:	16
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Tulip tree Tree Tag Number 12258

18960 Monterey Road

Tree Details

Scientific Name:	Liriodendron tulipifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	30
DBH:	8
Crown Spread:	12
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Tulip tree Tree Tag Number 12259

18960 Monterey Road

Tree Details

Scientific Name:	Liriodendron tulipifera
Status:	Alive
Condition:	Good
Tree Height (Estimated):	36
DBH:	9
Crown Spread:	8
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Monterey pine Tree Tag Number 12260

18960 Monterey Road

Tree Details

Scientific Name:	Pinus radiata
Status:	Alive
Condition:	Good
Tree Height (Estimated):	18
DBH:	16
Crown Spread:	14
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Monterey pine Tree Tag Number 12261

18960 Monterey Road

Tree Details

Scientific Name:	Pinus radiata
Status:	Alive
Condition:	Good
Tree Height (Estimated):	22
DBH:	17
Crown Spread:	18
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Monterey pine Tree Tag Number 12262

18960 Monterey Road

Tree Details

Scientific Name:	Pinus radiata
Status:	Alive
Condition:	Good
Tree Height (Estimated):	25
DBH:	14
Crown Spread:	14
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Monterey pine Tree Tag Number 12263

18960 Monterey Road

Tree Details

Scientific Name:	Pinus radiata
Status:	Alive
Condition:	Good
Tree Height (Estimated):	22
DBH:	10
Crown Spread:	16
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Monterey pine Tree Tag Number 12264

1110 Monterey Road

Tree Details

Scientific Name:	Pinus radiata
Status:	Alive
Condition:	Good
Tree Height (Estimated):	26
DBH:	10
Crown Spread:	16
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Monterey pine Tree Tag Number 12265

1110 Monterey Road

Tree Details

Scientific Name:	Pinus radiata
Status:	Alive
Condition:	Good
Tree Height (Estimated):	14
DBH:	9
Crown Spread:	12
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Monterey pine Tree Tag Number 12266

1110 Monterey Road

Tree Details

Scientific Name:	Pinus radiata
Status:	Alive
Condition:	Good
Tree Height (Estimated):	20
DBH:	16
Crown Spread:	16
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Monterey pine Tree Tag Number 12267

18960 Monterey Road

Tree Details

Scientific Name:	Pinus radiata
Status:	Alive
Condition:	Good
Tree Height (Estimated):	30
DBH:	14
Crown Spread:	18
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Monterey pine Tree Tag Number 12268

18960 Monterey Road

Tree Details

Scientific Name:	Pinus radiata
Status:	Alive
Condition:	Good
Tree Height (Estimated):	28
DBH:	16
Crown Spread:	16
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Monterey pine Tree Tag Number 12269

19022 Taylor Avenue

Tree Details

Scientific Name:	Pinus radiata
Status:	Alive
Condition:	Good
Tree Height (Estimated):	13
DBH:	16
Crown Spread:	16
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Monterey pine Tree Tag Number 12270

19022 Taylor Avenue

Tree Details

Scientific Name:	Pinus radiata
Status:	Alive
Condition:	Good
Tree Height (Estimated):	18
DBH:	15.26
Crown Spread:	18
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Monterey pine Tree Tag Number 12271

19022 Taylor Avenue

Tree Details

Scientific Name:	Pinus radiata
Status:	Alive
Condition:	Good
Tree Height (Estimated):	15
DBH:	13.6
Crown Spread:	13
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Monterey pine Tree Tag Number 12272

19022 Taylor Avenue

Tree Details

Scientific Name:	Pinus radiata
Status:	Alive
Condition:	Good
Tree Height (Estimated):	18
DBH:	13
Crown Spread:	16
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Monterey pine Tree Tag Number 12273

19022 Taylor Avenue

Tree Details

Scientific Name:	Pinus radiata
Status:	Alive
Condition:	Good
Tree Height (Estimated):	16
DBH:	11
Crown Spread:	14
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Almond Tree Tag Number 12274

18970 Monterey Road

Tree Details

Scientific Name:	Prunus dulcis
Status:	Alive
Condition:	
Tree Height (Estimated):	15
DBH:	5
Crown Spread:	14
Tree Work-Other:	
On the property line?:	No
Observation Comments:	Adjacent line

Photos Street View Map View



Raywood ash Tree Tag Number 12275

18980 Monterey Road

Tree Details

Scientific Name:	Fraxinus angustifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	14
DBH:	6.16
Crown Spread:	10
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Coast redwood Tree Tag Number 12276

19010 Monterey Road

Tree Details

Scientific Name:	Sequoia sempervirens
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	60
DBH:	27
Crown Spread:	29
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Coast redwood Tree Tag Number 12277

19010 Monterey Road

Tree Details

Scientific Name:	Sequoia sempervirens
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	38
DBH:	33
Crown Spread:	45
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



California palm Tree Tag Number 12278

19010 Monterey Road

Tree Details

Scientific Name:	Washingtonia filifera
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	60
DBH:	24
Crown Spread:	8
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Chinese elm Tree Tag Number 12279

19055 Taylor Avenue

Tree Details

Scientific Name:	Ulmus parvifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	12
DBH:	5
Crown Spread:	12
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 12280

19055 Taylor Avenue

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	25
DBH:	7
Crown Spread:	10
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 12281

19055 Taylor Avenue

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	20
DBH:	6
Crown Spread:	14
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Yew podocarpus Tree Tag Number 12282

19055 Taylor Avenue

Tree Details

Scientific Name:	Podocarpus macrophyllus
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	25
DBH:	6
Crown Spread:	16
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



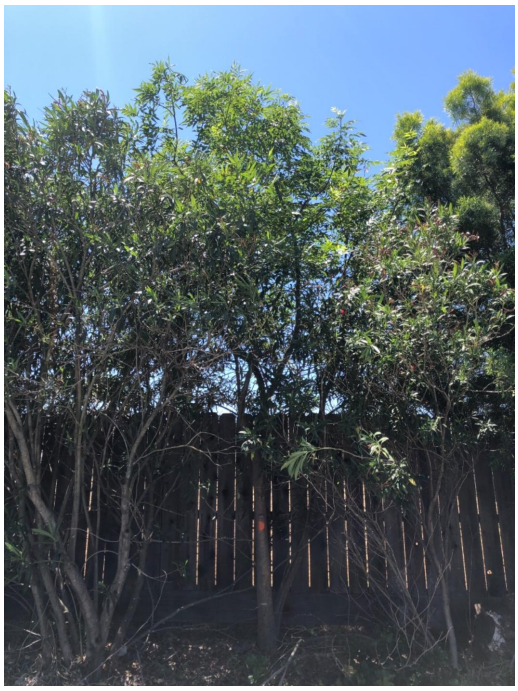
Yew podocarpus Tree Tag Number 12283

19055 Taylor Avenue

Tree Details

Scientific Name:	Podocarpus macrophyllus
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	22
DBH:	4.47
Crown Spread:	14
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Yew podocarpus Tree Tag Number 12284

19055 Taylor Avenue

Tree Details

Scientific Name:	Podocarpus macrophyllus
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	22
DBH:	5
Crown Spread:	8
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 12285

19032 Taylor Avenue

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	12
DBH:	2
Crown Spread:	6
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 12286

19032 Taylor Avenue

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	15
DBH:	3
Crown Spread:	8
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Yew podocarpus Tree Tag Number 12287

19022 Taylor Avenue

Tree Details

Scientific Name:	Podocarpus macrophyllus
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	15
DBH:	6
Crown Spread:	8
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 12288

19032 Taylor Avenue

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	20
DBH:	7.14
Crown Spread:	14
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 12289

19022 Taylor Avenue

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	24
DBH:	5
Crown Spread:	10
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 12290

19022 Taylor Avenue

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	24
DBH:	5
Crown Spread:	10
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 12291

19022 Taylor Avenue

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	
Tree Height (Estimated):	20
DBH:	3.16
Crown Spread:	8
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Yew podocarpus Tree Tag Number 12292

19022 Taylor Avenue

Tree Details

Scientific Name:	Podocarpus macrophyllus
Status:	Alive
Condition:	
Tree Height (Estimated):	20
DBH:	4
Crown Spread:	14
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 12293

19022 Taylor Avenue

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	
Tree Height (Estimated):	22
DBH:	5
Crown Spread:	10
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Yew podocarpus Tree Tag Number 12294

19022 Taylor Avenue

Tree Details

Scientific Name:	Podocarpus macrophyllus
Status:	Alive
Condition:	
Tree Height (Estimated):	25
DBH:	7
Crown Spread:	15
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Purpleleaf plum Tree Tag Number 12295

19022 Taylor Avenue

Tree Details

Scientific Name:	Prunus pissardii
Status:	Alive
Condition:	
Tree Height (Estimated):	14
DBH:	4.24
Crown Spread:	16
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Texas Privet Tree Tag Number 12296

19022 Taylor Avenue

Tree Details

Scientific Name:	Ligustrum japonicum ‘Texanum’
Status:	Alive
Condition:	
Tree Height (Estimated):	15
DBH:	4.12
Crown Spread:	10
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Texas Privet Tree Tag Number 12297

19022 Taylor Avenue

Tree Details

Scientific Name:	Ligustrum japonicum ‘Texanum’
Status:	Alive
Condition:	
Tree Height (Estimated):	15
DBH:	4.12
Crown Spread:	10
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



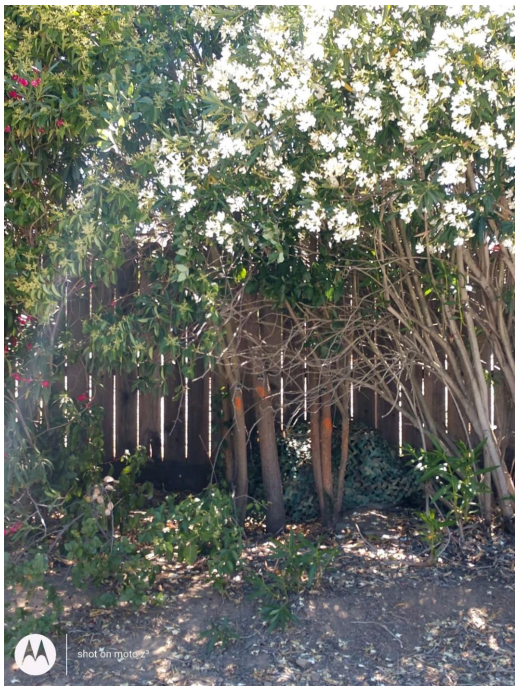
Pittisporum Tree Tag Number 12298

19022 Taylor Avenue

Tree Details

Scientific Name:	tenuifolium
Status:	Alive
Condition:	
Tree Height (Estimated):	14
DBH:	5.2
Crown Spread:	10
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



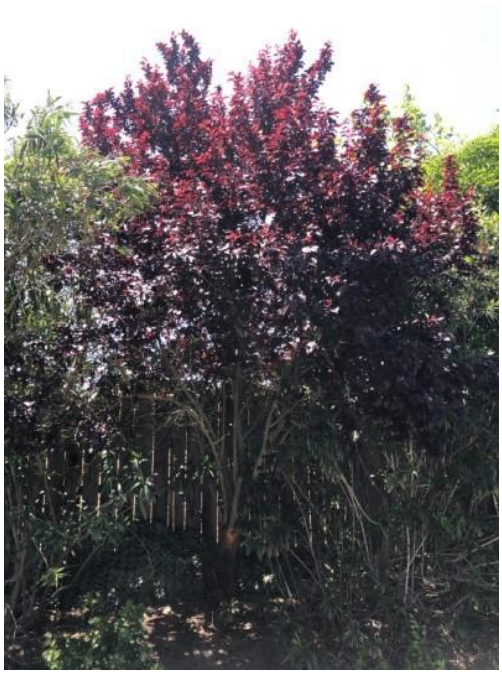
Pittisporum Tree Tag Number 12299

19022 Taylor Avenue

Tree Details

Scientific Name:	tenuifolium
Status:	Alive
Condition:	
Tree Height (Estimated):	14
DBH:	4.24
Crown Spread:	10
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Coastal live oak; California live oak Tree Tag Number 12300

19022 Taylor Avenue

Tree Details

Scientific Name:	Quercus agrifolia
Status:	Alive
Condition:	
Tree Height (Estimated):	8
DBH:	2
Crown Spread:	5
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Pittisporum Tree Tag Number 12301

19022 Taylor Avenue

Tree Details

Scientific Name:	tenuifolium
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	15
DBH:	5
Crown Spread:	10
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Purpleleaf plum Tree Tag Number 12302

19022 Taylor Avenue

Tree Details

Scientific Name:	Prunus pissardii
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	15
DBH:	4.12
Crown Spread:	14
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Purpleleaf plum Tree Tag Number 12303

19022 Taylor Avenue

Tree Details

Scientific Name:	Prunus pissardii
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	15
DBH:	4.58
Crown Spread:	14
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Yew podocarpus Tree Tag Number 12304

19022 Taylor Avenue

Tree Details

Scientific Name:	Podocarpus macrophyllus
Status:	Alive
Condition:	Fair
Tree Height (Estimated):	24
DBH:	8
Crown Spread:	14
Tree Work-Other:	
On the property line?:	
Observation Comments:	

Photos Street View Map View



Tree Tag Number	Indigenous Trees	Type	Ordinance Size	DBH	Height	Preserve	Remove	On Property Line	Inside Property	Off Site
11108			x				x	x	x	
11109	x	Live Oak	x	18"	20'		x		x	
11110	x	Live Oak	x	22" (2)	30'		x		x	
11111	x	Live Oak	x	19"	35'		x		x	
11112	x	Live Oak	x	31"	45'	x				x
11113	x	Live Oak	x	12"	30'		x	x	x	
11114	x	Live Oak	x	26"	50'		x		x	
11115	x	Live Oak	x	10"	25'		x		x	
11116	x	Live Oak	x	12"			x		x	
11117	x	Live Oak	x	10"	30'		x		x	
11118	x	Live Oak	x	8"	18'		x		x	
11119	x	Live Oak	x	20" (3)	25'		x	x	x	
11120	x	Live Oak	x	23" (2)	25'		x		x	
11121	x	Live Oak	x	6"	16'		x	x	x	
12201							x		x	
12202	x	Live Oak	x	17"	35'		x		x	
12203	x	Live Oak	x	12"	35'		x		x	
12204						x				x
12205						x				x
12206						x				x
12207						x				x
12208						x				x
12209						x				x
12210						x				x
12211						x				x
12212						x				x
12213						x				x
12214			x				x		x	
12215			x				x		x	
12216			x				x	x	x	
12217							x	x	x	
12218							x		x	
12219							x		x	
12220							x	x	x	
12221			x				x	x	x	
12222							x	x	x	
12223							x		x	
12224							x	x	x	
12225	x	Live Oak		Access		x				x
12226				Access		x				x
12227				Access		x				x
12228	x	Live Oak		Access		x				x
12229	x	Live Oak		Access		x				x

Tree Tag Number	Indigenous Trees	Type	Ordinance Size	DBH	Height	Preserve	Remove	On Property Line	Inside Property	Off Site
12230							x	x	x	
12231			x				x		x	
12232			x				x		x	
12233							x		x	
12234							x		x	
12235						x				x
12236							x	x	x	
12237							x		x	
12238			x				x	x	x	
12239							x		x	
12240							x	x	x	
12241							x	x	x	
12242							x	x	x	
12243						x				x
12244						x				x
12245						x				x
12246						x				x
12247						x				x
12248						x				x
12249						x				x
12250						x				x
12251						x				x
12252						x				x
12253						x				x
12254						x				x
12255						x				x
12256						x				x
12257						x				x
12258						x				x
12259						x				x
12260			x			x				x
12261			x			x				x
12262			x			x				x
12263						x				x
12264						x				x
12265						x				x
12266			x			x				x
12267			x			x				x
12268			x			x				x
12269			x			x				x
12270			x			x				x
12271			x			x				x
12272			x			x				x
12273						x				x

Tree Tag Number	Indigenous Trees	Type	Ordinance Size	DBH	Height	Preserve	Remove	On Property Line	Inside Property	Off Site
12274						x				x
12275						x				x
12276			x			x				x
12277			x			x				x
12278			x			x				x
12279						x				x
12280	x	Live Oak	x	7"	25'	x				x
12281	x	Live Oak	x	6"	20'	x				x
12282						x				x
12283										x
12284						x				x
12285	x	Live Oak				x				x
12286	x	Live Oak				x				x
12287						x				x
12288	x	Live Oak	x	7"	20'	x				x
12289	x	Live Oak				x				x
12290	x	Live Oak				x				x
12291	x	Live Oak				x				x
12292						x				x
12293	x	Live Oak				x				x
12294						x				x
12295						x				x
12296						x				x
12297						x				x
12298						x				x
12299						x				x
12300	x	Live Oak				x				x
12301						x				x
12302						x				x
12303						x				x
12304						x				x

Appendix C
Geotechnical Engineering Study

GEO-ENGINEERING SOLUTIONS, INC.

Geotechnical Engineering • Engineering Geology • Materials Testing

GEOTECHNICAL ENGINEERING STUDY

Residential Development
18960 Monterey Road, Morgan Hill, CA 95037

August 25, 2020

Prepared for:

Jemcor Development Partners
1700 S. El Camino Real, Suite 400
San Mateo, California 94402

Prepared by:

Geo-Engineering Solutions, Inc.
2570 San Ramon Valley Blvd, Suite #A102
San Ramon, California 94583
Project No. 79-1251

GEO-ENGINEERING SOLUTIONS, INC.
2570 San Ramon Valley Blvd., Suite A102
San Ramon, CA | 925-433-0450

August 25, 2020

Jemcor Development Partners
1700 S. El Camino Real, Suite 400
San Mateo, CA 94402

Attention: Mr. Jonathan Emami

Subject: **Geotechnical Engineering Study**
Residential Development
18960 Monterey Road
Morgan Hill, California 95037
Geo-Eng Project No. 79-1251

Dear Mr. Emami:

Geo-Engineering Solutions, Inc. has prepared a Geotechnical Engineering Study for the proposed improvements located at 18960 Monterey Road in Morgan Hill, California. It is our understanding that the proposed project will consist of the construction of 12 new residential buildings with a separate leasing and amenity building and surface parking.

Transmitted herewith are the results of our findings, conclusions, and recommendations for the design and construction of proposed foundation support, interior concrete slabs, site development/grading and drainage, and utility trench backfilling. In general, the proposed improvements at the site are considered to be geotechnically feasible provided the recommendations of this report are implemented in the design and construction of the project.

Should you or members of the design team have questions or need additional information, please contact the undersigned at (925) 433-0450 or by e-mail at eswenson@geo-eng.net. We greatly appreciate the opportunity to be of service to Jemcor Development Partners, and to be involved in the design of this project.

Sincerely,

GEO-ENGINEERING SOLUTIONS, INC.

Colin Frost, PE
Project Engineer

Eric J. Swenson, GE, CEG
Principal Engineer and Geologist

TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 Purpose and Scope 1
1.2 Site Description 1
1.3 Proposed Development 1
1.4 Validity of Report 2
2.0 PROCEDURES AND RESULTS 3
2.1 Literature Review 3
2.2 Field Exploration 3
2.3 Laboratory Testing 4
2.4 Previous Field Exploration 4
3.0 GEOLOGY AND SEISMICITY 5
3.1 Geologic Setting 5
3.2 Seismic Setting 5
4.0 FIELD AND LABORATORY FINDINGS 6
4.1 Subsurface Soil Conditions 6
4.2 Groundwater 6
4.3 Corrosion Testing 6
5.0 GEOLOGIC HAZARDS 9
5.1 Seismic Induced Hazards 9
5.2 Expansive Soils 11
6.0 CONCLUSIONS AND ENGINEERING RECOMMENDATIONS 12
6.1 Seismic Coefficients 12
6.2 Site Grading 13
6.3 Utility Trench Construction 17
6.4 Temporary Excavation Slopes 18
6.5 Foundations 18
6.6 Concrete Slabs-on-Grade 20
6.7 Retaining/Basement Walls 21
6.8 Observation and Testing During Construction 24
7.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS 25
8.0 REFERENCES 26

TABLE OF CONTENTS (cont'd.)

FIGURES

Figure 1 – Site Vicinity Map
Figure 2 – Site Development Plan
Figure 3 – Site and Boring Location Plan
Figure 4 – Site Vicinity Geology Map
Figure 5 – Regional Fault Map
Figure 6 – Seismic Hazard Map

APPENDIX A

FIELD EXPLORATION
Key to Exploratory Boring Logs
Boring Logs

APPENDIX B

LABORATORY TEST RESULTS
Grain Size Distribution Report
Corrosivity Test Results

APPENDIX C

PREVIOUS FIELD EXPLORATION
Boring Logs (GeoSolve)

1.0 INTRODUCTION

1.1 Purpose and Scope

The purpose of our work was to prepare a Geotechnical Engineering Study, evaluate the subsurface conditions at the site and prepare geotechnical recommendations for the proposed development. We have provided specific recommendations regarding suitability and geotechnical concerns relative to the proposed structural design.

The scope of this study included the field exploration, laboratory testing, engineering analysis of the collected samples and test results, and preparation of this report. The conclusions and recommendations presented in this report are based on the limited samples collected and analyzed during this study, and on prudent engineering judgment and experience. This study did not include an in-depth assessment of potentially toxic or hazardous materials that may be present on or beneath the site.

1.2 Site Description

The proposed improvement project is located at 18960 Monterey Road in Morgan Hill, California as shown on *Figure 1, Site Vicinity Map*. The project site is bordered by Monterey Road and neighboring residential developments to the south and west, by neighboring residential developments to the north, by Taylor Avenue to the northeast, and by Madrone Parkway to the southeast. The project site is currently being utilized as an auto salvage yard. A warehouse occupies the southeast corner of the site. Several other minor structures and stored automobiles occupy the remainder of the site. The topography of the site is relatively flat, with approximate elevations of +349 to +350. The average geographical coordinates used in our engineering analyses are 37.1500 degrees north latitude and 121.6685 degrees west longitude.

1.3 Proposed Development

Based on email correspondence with the client, we understand that the development will consist of the demolition of the existing buildings and structures on site, followed by the construction of 12 new two to three story residential buildings with a separate leasing and amenity building and surface parking, as shown on *Figure 2, Site Development Plan*. In addition, it is assumed there will be associated improvements such as site grading, landscaping, paving and utilities.

1.4 Validity of Report

This report is valid for three years after publication. If construction begins after this time, Geo-Eng should be contacted to confirm that the site conditions have not changed significantly. If the proposed development differs considerably from that described above, Geo-Eng should be notified to determine if additional recommendations are required. Additionally, if Geo-Eng is not involved during the geotechnical aspects of construction, this report may become wholly or in part invalid; since Geo-Eng's geotechnical personnel need to verify that the subsurface conditions anticipated preparing this report are similar to the subsurface conditions revealed during construction. Geo-Eng's involvement should include foundation and grading plan review; observation of foundation excavations; grading observation and testing; testing of utility trench backfill.

2.0 PROCEDURES AND RESULTS

2.1 Literature Review

Pertinent geologic and geotechnical literature pertaining to the site area, and previous geotechnical studies performed by others for projects in the site vicinity were reviewed. These included United States Geological Survey (USGS), California Geological Survey (CGS), and other online resources, and other applicable government and private publications and maps, as included in the References section.

2.2 Field Exploration

Our field exploration program consisted of drilling 4 test borings throughout the project site as shown on *Figure 3, Site and Boring Location Plan.*

Borings B-1 to B-4 were drilled at the site on July 16, 2020 by Exploration Geoservices, using a truck mounted CME-75 drill rig equipped with 8-inch diameter hollow stem augers, to a maximum depth of 30 feet below existing ground surface.

A Geo-Eng Staff Engineer visually classified the materials encountered in the borings according to the Unified Soil Classification System as the borings were advanced. Relatively undisturbed soil samples were recovered at selected intervals using a three-inch outside diameter Modified California split spoon sampler containing six-inch long brass liners. A two-inch outside diameter Standard Penetration Test (SPT) sampler was also used to obtain SPT blow counts and obtain disturbed soil samples. The samplers were driven by using a 140-pound safety hammer with an approximate 30-inch fall utilizing N-rods as necessary. Resistance to penetration was recorded as the number of hammer blows required to drive the sampler the final foot of an 18-inch drive. All the blow counts recorded using Modified California split spoon samplers in the field were converted to equivalent SPT blow counts using appropriate modification factors suggested by Burmister (1948), i.e., a factor of 0.65 assuming an inner diameter of 2.5 inches. Therefore, all blow counts shown on the final boring logs are either directly measured (SPT sampler) or equivalent SPT (MC sampler) blow counts. Bulk samples were obtained in the upper few feet of the borings from the auger cuttings as needed.

The boring logs with descriptions of the various materials encountered in each boring, the penetration resistance values, and the laboratory test results are presented in Appendix A. The ground surface elevations indicated on the soil boring logs were determined using Google Earth. Actual surface elevations at the boring locations may differ slightly than indicated. The locations of the borings should only be considered accurate to the degree implied by the means and methods used to define them.

2.3 Laboratory Testing

Laboratory tests were performed on selected samples to determine some of the physical and engineering properties of the subsurface soils. The results of the laboratory testing are presented on the boring logs, and included in Appendix B. The following soil tests were performed for this study:

Dry Density and Moisture Content (ASTM D2216 and ASTM 2937) – In-situ dry density and/or moisture tests were conducted on various samples to measure the in-place dry density and moisture content of the subsurface materials. These properties provide information to assist in evaluating the physical characteristics of the subsurface soils. Test results are shown on the boring logs.

Particle Size Analysis (Wet and Dry Sieve) and Fines Content (ASTM D422 and D1140) - Sieve analysis or fines content (minus No. 200 sieve) tests were conducted on several selected samples to measure the soil particle size distribution. This information is useful for the evaluation of liquefaction potential and characterizing the soil type according to USCS. Test results are presented on the boring logs or in Appendix B.

Soil Corrosivity, Redox (ASTM D1498), pH (ASTM D4972), Resistivity (ASTM G57), Chloride (ASTM D4327), and Sulfate (ASTM D4327) – Soil corrosivity testing was performed to determine the effects of constituents in the soil on buried steel and concrete. Water-soluble sulfate testing is required by the CBC and IBC. Test results are discussed in Section 4.3.

2.4 Previous Field Exploration

For the purposes of developing this report we reviewed pertinent data from other field explorations at the subject site. GeoSolve performed a total of 14 borings at the subject site in May and June of 2020, shown on Figure 3, as part of an environmental site assessment. Borings GB-1 to GB-12 were drilled by Pencore using a direct push rig; borings GB-13 and GB-14 were drill by Exploration Geoservices using a truck mounted drill rig and hollow stem augers. The resulting borings logs are attached in Appendix C.

3.0 GEOLOGY AND SEISMICITY

3.1 Geologic Setting

The site is located within the central portion of the Coast Ranges geomorphic province of California. The Coast Ranges geomorphic province consists of numerous small to moderate linear mountain ranges trending north to south and northwest to southeast. The Coast Ranges lies between the Pacific Ocean to the west and the Great Valley Geomorphic Province to the east. This province is approximately 400 miles long and extends from the Klamath Mountains in the north to the Santa Ynez River within Santa Barbara County in the south. It generally consists of marine sedimentary rocks and volcanic rocks. The province is characterized by northwest-trending faults and folds, as well as erosion and deposition within the broad transform boundary between the North American and Pacific plates. Translational motion along the plate boundary occurs across a distributed zone of right-lateral shear expressed as a nearly 50-mile-wide zone of northwest-trending, near-vertical active strike-slip faults. This motion occurs primarily along the active San Andreas, Hayward, Calaveras and San Gregorio faults.

The site is located in the Cayote Creek drainage of the Santa Clara Valley, located south of the San Francisco Bay and east and north of the Santa Cruz Mountains. The subject property is located in a generally flat area that overlies alluvial gravel, sand, silt, and clay of Holocene alluvium (Dibblee and minch, 2007). The site is underlain by older Pleistocene aged sediments of sand and gravel. Bedrock in the area is relatively deep, on the order of 50 feet.

3.2 Seismic Setting

Regional transpression has caused uplift and folding of the bedrock units within the Coast Ranges. This structural deformation occurred during periods of tectonic activity that began in the Pliocene and continues today. The Bay Area of Northern California is a seismically active region dominated by four major northwest trending right lateral strike slip faults that include the San Andreas Fault, the Hayward Fault, the Calaveras Fault, and the Greenville Fault.

Major faults near the subject property include the San Andreas Fault located about 7 miles southwest, the Calaveras Fault located about 4 miles northeast, and the San Gregorio Fault located about 26 miles southwest. Additional notable faults near the subject property include the Monte Vista Fault located about four miles northwest and the Silver Creek Fault located about nine miles northeast. The State of California Earthquake Zones of Required Investigation map shows the subject property is not in any liquefaction or active faulting hazard zone.

4.0 FIELD AND LABORATORY FINDINGS

Subsurface conditions below the project site were interpreted based on the results of the test borings performed for this study, as well as the results of our laboratory testing. Detailed descriptions of the various subsurface soil units encountered during subsurface explorations are described in the following paragraphs.

4.1 Subsurface Soil Conditions

Subsurface conditions below the project site were interpreted based on the results of the test borings performed for this study (see Figures 3 for locations) and the results of our laboratory testing. Detailed descriptions of the various subsurface soil units encountered during subsurface explorations are described in the following.

During our subsurface exploration program, we investigated the subsurface soils and evaluated soil conditions to a maximum depth of 44 feet in the 4 borings performed for this study and the 14 borings performed by GeoSolve. From the ground surface to the maximum depth explored, the soils underlying the project site consist of primarily of gravelly sands and sandy gravels with occasionally thin layers of sandy clay and gravelly clay to the maximum depth explored of 30 feet below existing ground surface

Due to the granular nature of the near surface material we judge the near surface soil to be non-plastic and have a low expansion potential.

4.2 Groundwater

Free groundwater was encountered by GeoSolve in their borings GB-13 and GB-14 at depths of 40 feet and 36 feet, respectively, below existing ground surface. Free groundwater was not encountered in any other borings. The borings were backfilled with a neat cement grout shortly after drilling. We note that the borings may not have been left open for a sufficient period of time to establish equilibrium groundwater conditions. Groundwater levels can vary in response to time of year, variations in seasonal rainfall, tidal influence, well pumping, irrigation, and alterations to site drainage.

4.3 Corrosion Testing

A bulk sample collected from the upper four feet of Boring B-2 was tested to measure sulfate content, chloride content, redox potential, pH, resistivity, and presence of sulfides. Test results are included in Appendix B and are summarized on the following tables.

Table 1: Summary of Corrosion Test Results

Soil Description	Sample Depth (feet)	Sulfate (mg/kg)	Chloride (mg/kg)	Redox (mV)	Resistivity (ohm-cm)	Sulfide	pH
Yellowish Brown Sandy CLAY	4	288	4	501	6,788	Negative	9.2

Water-soluble sulfate can affect the concrete mix design for concrete in contact with the ground, such as shallow foundations, piles, piers, and concrete slabs. Section 4.3 in American Concrete Institute (ACI) 318, as referenced by the CBC, provides the following evaluation criteria:

Table 2: Sulfate Evaluation Criteria

Sulfate Exposure	Water-Soluble Sulfate in Soil, Percentage by Weight or (mg/kg)	Sulfate in Water, ppm	Cement Type	Max. Water Cementitious Ratio by Weight	Min. Unconfined Compressive Strength, psi
Negligible	0.00-0.10 (0-1,000)	0-150	NA	NA	NA
Moderate	0.10-0.20 (1,000-2,000)	150-1,500	II, IP (MS), IS (MS)	0.50	4,000
Severe	0.20-2.00 (2,000-20,000)	1,500-10,000	V	0.45	4,500
Very Severe	Over 2.00 (20,000)	Over 10,000	V plus pozzolan	0.45	4,500

The water-soluble sulfate content was measured to be about 288 mg/kg (ppm) or 0.0288% by dry weight in the soil sample, suggesting the site soil should have negligible impact on buried concrete structures at the site. However, it should be pointed out that the water-soluble sulfate concentrations can vary due to the addition of fertilizer, irrigation, and other possible development activities.

Table 4.4.1 in ACI 318 suggests use of mitigation measures to protect reinforcing steel from corrosion where chloride ion contents are above 0.06% by dry weight. The chloride content was measured to be 4 mg/kg (ppm) or 0.0004% by dry weight in the soil sample. Therefore, the test result for chloride content does not suggest a corrosion hazard for mortar-coated steel and reinforced concrete structures due to high concentration of chloride.

In addition to sulfate and chloride contents described above, pH, oxidation reduction potential (Redox), and resistivity values were measured in the soil sample. For cast and ductile iron pipes, an evaluation was based on the 10-Point scaling method developed by the Cast Iron Pipe Research Association (CIPRA) and as detailed in Appendix A of the American Water Works Association (AWWA) publication C-105 and shown on Table 3.

Table 3: Soil Test Evaluation Criteria (AWWA C-105)

Soil Characteristics	Points		Soil Characteristics	Points
Resistivity, ohm-cm, based on single probe or water-saturated soil box.			**Redox Potential, mV**	
<700	10		>+100	0
700-1,000	8		+50 to +100	3.5
1,000-1,200	5		0 to 50	4
1,200-1,500	2		Negative	5
1,500-2,000	1		**Sulfides**	
>2,000	0		Positive	3.5
PH			Trace	2
0-2	5		Negative	0
2-4	3		**Moisture**	
4-6.5	0		Poor drainage, continuously wet	2
6.5-7.5	0		Fair drainage, generally moist	1
7.5-8.5	0		Good drainage, generally dry	0
>8.5	5			

Assuming fair site drainage, the tested soil sample had a total score of 6 points, indicating a moderate corrosive rating. When total points on the AWWA corrosivity scale are at least 10, the soil is classified as corrosive to cast and ductile iron pipe and use of cathodic corrosion protection is often recommended.

These results are preliminary and provide information only on the specific soil sampled and tested. Other soil at the site may be more or less corrosive. Providing a complete assessment of the corrosion potential of the site soils are not within our scope of work. For specific long-term corrosion control design recommendations, we recommend that a California-registered professional corrosion engineer evaluate the corrosion potential of the soil environment on buried concrete structures, steel pipe coated with cement-mortar, and ferrous metals.

5.0 GEOLOGIC HAZARDS

5.1 Seismic Induced Hazards

Seismic hazards resulting from the effects of an earthquake generally include ground shaking, liquefaction and dynamic settlement (densification), lateral spreading, fault ground rupture and fault creep, and tsunamis and seiches. The site is not necessarily impacted by these potential seismic hazards. Applicable potential seismic hazards are discussed and evaluated in the following sections in relation to the planned construction.

5.1.1 Ground Shaking

The site will likely experience severe ground shaking from a major earthquake originating from many significant faults in the San Francisco Bay Area, including the Calaveras and San Andreas faults. Earthquake intensities vary throughout the Bay Area depending upon the magnitude of the earthquake, the distance of the site from the causative fault, the type of materials underlying the site and other factors.

In addition to shaking of the structure, strong ground shaking can induce other related phenomena that may influence structures, such as liquefaction or dynamic densification settlement; adjacent seismic slope failure, lurching or lateral spreading, or seismically induced waves (tsunamis and seiches).

5.1.2 Liquefaction Induced Phenomena

The site is not mapped within either a state or county identified geologic hazard zones requiring liquefaction investigation, as shown on *Figure 6, Seismic Hazard Map.*

Research and historical data indicate that soil liquefaction generally occurs in saturated, loose granular soil (primarily fine to medium-grained, clean, poorly-graded sand deposits) during or after strong seismic ground shaking and is typified by a loss of shear strength in the affected soil layer, thereby causing the soil to flow as a liquid. Typically, liquefaction potential increases with increased duration and magnitude of cyclic loading. However, because of the higher intergranular pressure of the soil at greater depths, the potential for liquefaction is generally limited to the upper 40 feet of the soil. Potential hazards associated with soil liquefaction below or near a structure include loss of foundation support, lateral spreading, sand boils, and areal and differential settlement.

Lateral spreading is lateral ground movement, with some vertical component, as a result of liquefaction. The soil literally rides on top of the liquefied layer. Lateral spreading can occur on relatively flat sites with slopes less than two percent under certain circumstances, generally when the liquefied layer is in relatively close proximity to an open, free slope face such as the bank of a creek channel. Lateral spreading can cause surficial ground tension cracking (i.e., lurch cracking) and settlement.

The soils encountered in the subsurface investigation included layers of dense to very dense gravelly sands and sandy gravels. These soils are expected to be generally less susceptible to liquefaction due to their fine-grained content and relatively high density. Additionally, we did not encounter any ground water during our investigation, and judge groundwater at the subject site to be deeper than 40 feet below existing ground surface.

Therefore, the potential for liquefaction of the site subsurface soils is judged to be low.

5.1.3 Dynamic Densification (Settlement)

Dynamic compaction is a phenomenon where loose, relatively clean, near-surface sandy soil located above the water table is densified from vibratory loading, typically from strong seismic shaking or vibratory equipment. The site soils generally consist of dense to very dense gravelly sands and sandy gravels. Therefore, in our opinion, dynamic settlement and/or any potential effect of dynamic settlement on the proposed construction is not expected to be significant.

5.1.4 Fault Ground Rupture and Fault Creep

The State of California adopted the Alquist-Priolo Earthquake Fault Zone Act of 1972 (Chapter 7.5, Division 2, Sections 2621 – 2630, California Public Resources Code), which regulates development near active faults for the purpose of preventing surface fault rupture hazards to structures for human occupancy. In accordance with the Alquist-Priolo (A-P) Act, the California Geological Survey established boundary zones or *Earthquake Fault Zones* surrounding faults or fault segments judged to be sufficiently active, well-defined and mapped for some distance. In addition to the State of California zones, Santa Clara County has identified additional fault rupture hazard zones. Structures for human occupancy within designated Earthquake Fault Zone boundaries are not permitted unless surface fault rupture and fault creep hazards are adequately addressed in a site-specific evaluation of the development site.

The site is not currently within a designated Earthquake Fault Zone as defined by the State (Hart and Bryant, 1997) or any local zone. Based on our evaluation, the potential for fault ground rupture or creep at the site is very low to nil.

5.2 Expansive Soils

We observed the near surface soil to predominantly consist of non-plastic granular material such as clayey sands and/or gravelly sands. Therefore, we judge the near surface soils to have a low expansion potential and that expansive soils will have a negligible impact on the proposed improvements.

6.0 CONCLUSIONS AND ENGINEERING RECOMMENDATIONS

The following conclusions and engineering recommendations are based upon the analysis of the information gathered during the course of this study and our understanding of the proposed improvements.

The site is considered suitable from a geotechnical and geologic perspective for the proposed improvements provided the recommendations of this report are incorporated into the design and implemented during construction. The predominant geotechnical and geological issues affecting design or construction that will need to be addressed at this site are summarized below and addressed in the following sections.

Seismic Considerations - The site is located within a seismically active region and the structures should be designed to account for earthquake ground motions, using the applicable building codes, as described in Section 6.1 of this report.

Undocumented Fill Soils – Undocumented fill soils and debris were encountered in several borings performed by GeoSolve during their subsurface investigation. Additionally, due to the presence of existing buildings at the site of the proposed new building, undocumented fills associated with the demolition of the building and removal of associated foundations and utilities may be present. Undocumented onsite fill soils if encountered in the new building pad and loose or debris laden soils if encountered in other areas, should be completely removed and replaced by engineered compacted fill. The portion of over-excavated material not consisting of debris or organic topsoil may be reused as fill material upon approval of the geotechnical engineer.

Winter Construction - If grading occurs in the winter rainy season, appropriate erosion control measures may be required, and weatherproofing of the building pad and/or hardscape areas may need to be considered. Winter rains may also impact foundation excavations and underground utilities.

6.1 Seismic Coefficients

The subject site is located within a seismically active region and should be designed to account for earthquake ground motions as described in this report. Based on the subsurface conditions encountered and our evaluation of the geology of the site, Site Class “D”, representative of stiff soil averaged over the uppermost 100 feet of the subsurface profile would be appropriate for this site.

For seismic analysis of the proposed site in accordance with the seismic provisions of the 2019 California Building Code (CBC), we recommend the following seismic ground motion values be used for design shown in Table 4, which are based on procedures outlined in ASCE 7-16 Section 11.4 and Table 11.4-2 of Supplement 1. ASCE 7-16 Section 11.4.8 states that a site-specific ground motion hazard analysis should be performed for all structures on Site Class D soils with S_1 greater than or equal to 0.2, unless the exceptions outlined in Section 11.4.8 are followed and the seismic response coefficient is properly modified during design. A site-specific ground motion hazard analysis was not performed for this site and is outside the scope of this report. If a site-specific ground motion hazard analysis is required for this project or if the project is designed under a different building code than CBC 2019, we should be notified so that we may provide the appropriate seismic design parameters.

Table 4: Seismic Parameters Based on 2019 CBC (per ASCE 7-16)

Item	Value	2019 CBC Source[R1]	ASCE 7-16 Table/Figure[R2]
Site Class	D	Table 1613A.3.2.	Table 20.3-1
Mapped Spectral Response Accelerations			
Short Period, S_s	1.619		Figure 22-1
1-second Period, S_1	0.600		Figure 22-2
Site Coefficient, F_a	1.200	Table 1613A.3.3(1)	Table 11.4-1
Site Coefficient, F_{v*}	1.700	Table 1613A.3.3(2)	Table 11.4-2
MCE (S_{MS})	1.943	Equation 16A-37	Equation 11.4-1
MCE (S_{M1})	1.020	Equation 16A-38	Equation 11.4-2
Design Spectral Response Acceleration			
Short Period, S_{DS}	1.295	Equation 16A-39	Equation 11.4-3
1-second Period, S_{D1}**	0.680	Equation 16A-40	Equation 11.4-4

R1: California Building Standards Commission (CBSC), "California Building Code," 2019 Edition.
R2: U.S. Seismic "Design Maps" Web Application, https://seismicmaps.org/
*F_v are based off Table 11.4-2 from the ASCE 7-16 Supplement 1
**The above design spectral response acceleration parameters may only be used provided that the exception outlined in section 11.4.8 of ASCE 7-16 is met.

6.2 Site Grading

6.2.1 General Grading and Material Requirements

Site grading is generally anticipated to consist of finish grading to establish site grades, or additional mass grading for improved foundation bearing capacities if desired; utility trench excavation and backfills, preparation of supporting subgrades for site pavements and hardscape; and placement of aggregate base (baserock) sections for hardscape and pavements.

On-site soils having an organic content of less than three percent by weight and Plasticity Index of less than 15 can be reused as fill as approved by the Geotechnical Engineer. Imported soil should be non-expansive, having a Plasticity Index of 15 or less, an R-Value greater than 40, and contain sufficient fines so the soil can bind together. Imported materials should be free of environmental contaminants, organic materials and debris, and should not contain rocks or lumps greater than three inches in maximum size. Import fill materials should be approved by the Geotechnical Engineer prior to use on site.

6.2.2 Project Compaction Recommendations

Table 5 provides the recommended compaction requirements for this project. Some items listed below may not apply to this project. Specific moisture conditioning and relative compaction recommendations will be discussed individually within applicable sections of this report.

Table 5: Project Compaction Recommendations

Description	Percent Relative Compaction	Minimum Percent Above Optimum Moisture Content
Building Pad, Onsite Soil	90	2
Building Pad, Subgrade Soil	90	2
Building Pad, Imported Select Fill	90	2
Building Pad, Treated Soil	90	2
AC or Concrete Pavement, Subgrade, Upper 6”	95	2
AC or Concrete Pavement, Onsite Soil or Fill	90	2
AC or Concrete Pavement, Class 2 Baserock	95	2
AC or Concrete Pavement, Treated Soil, Subgrade	93	2
Concrete Flatwork, Class 2 Baserock	90	2
Concrete Flatwork, Subgrade Soil	90	2
Underground Utility Trench Backfill	90	2
Underground Utility Trench Backfill - Landscape Areas (not including areas below flatwork)	85	2
Underground Utility Trench Backfill, Clean Sand	95	4
Underground Utility Trench Backfill, Upper 3’ Feet below Existing Pavement Sections or 6” below New Pavement Sections	95	2

Fill materials should be properly moisture conditioned in accordance with Table 5 as determined using ASTM D-1557 and placed in uniform loose lifts not to exceed eight inches. Smaller lifts may be necessary to achieve the minimum required compaction using lighter weight compaction equipment. It should be noted that the use of on-site soils for fill will require moisture conditioning (drying or wetting). Moisture conditioning may be difficult to

achieve during cold, wet periods of the year, or during extreme temperatures and after precipitation events.

6.2.3 Site Preparation and Demolition

Site grading should be performed in accordance with these recommendations. A pre-construction conference should be held at the jobsite with representatives from the owner, general contractor, grading contractor, and Geo-Eng prior to starting the stripping and demolition operations at the site.

The site should be cleared of existing pavements (if any), vegetation, organic topsoil, debris, existing undocumented loose or soft fill, and other deleterious materials within the proposed development area. Removed fill soil may be evaluated by the Geotechnical Engineer for possible reuse and placement as engineered fill. The grading contractor should be aware of the possibility of buried objects and underground utilities at the site which are to be removed or abandoned appropriately. Holes resulting from the removal of underground obstructions extending below the proposed finish grade should be cleared and backfilled with properly compacted engineered fill or other material approved by the Geotechnical Engineer. We recommend backfilling operations for any excavations to remove deleterious material be carried out under the observation of the Geotechnical Engineer.

It is possible that existing underground utilities exist and if so, may impact the project construction. If encountered, the utilities will need to be properly abandoned and/or entirely removed from proposed building area. In general, utility pipelines less than four inches in diameter to be abandoned may be left in place provided they will not be in close proximity to new foundation elements or interfere with new utilities. Such pipes should be plugged at the ends with concrete or sand-cement slurry. Larger utility pipelines or pipelines that underlie new foundations should be removed and replaced with engineered fill, or left in place and completely grouted with flowable sand-cement slurry or other approved Controlled Density Fill (CDF; also, known as Controlled Low Strength Material, or CLSM).

6.2.4 Building Subgrade Preparation

Imported soil should be non-expansive, having a Plasticity Index of 15 or less, an R-Value greater than 40, and contain sufficient fines so the soil can bind together. Imported materials should be free of organic materials and debris and should not contain rocks or lumps greater than three inches in maximum size. Import fill materials should be approved by the Geotechnical Engineer prior to use onsite.

Following excavation to the required grades, subgrades in areas to receive engineered fill, slabs-on-grade or hardscape should be scarified to a depth of at least six inches; moisture conditioned, and compacted to the

requirements for engineered fill presented in Table 5. The compacted surface should be firm and unyielding and should be protected from damage caused by traffic or weather. Soil subgrades should be kept moist during construction. To achieve satisfactory compaction of the subgrade and fill materials, it may be necessary to adjust the water content at the time of construction. This may require that water be added to soils that are too dry, or that scarification and aeration be performed in any soils that are too wet. Fill material should be evenly spread and compacted in lifts not exceeding eight inches in pre-compacted thickness.

Newly exposed near-surface soils under existing site pavement once removed are typically saturated to near-saturated. Therefore, it is anticipated that after the underlying soils are over-excavated to construct the non-expansive fill layer, unstable subgrade conditions unworkable for compaction by construction equipment are locally possible, and compaction of the exposed soil subgrade to engineered fill requirements immediately after exposure may not be feasible. Possible options for subgrade stabilization include ripping, air-drying and re-compacting exposed subgrade material; admixtures such as cement; or use of reinforcing stabilization geotextile or geogrid, as discussed below. More detailed recommendations can be provided during construction should unstable subgrades be encountered by the contractor.

Unstable subgrades in smaller, isolated areas can be stabilized by over excavating to a minimum of 18-inch depth below finished subgrade elevation where competent, stable soils are not encountered. The bottom of the excavation should then be completely covered with a ground stabilization geotextile fabric such as Mirafi 500X or equivalent, and typically backfilled with Class 2 aggregate base. Alternatively, with the approval of the Geotechnical Engineer, such areas can be stabilized by over-excavating at least one foot, placing Tensar TriAx TX-140 or equivalent geogrid on the soil, and then placing 12 inches of Class 2 baserock on the geogrid. The upper six inches of the baserock in either case should be compacted to at least 90 percent relative compaction.

Larger unstable areas if encountered may be remedied using soil admixtures, such as cement. A four percent mixture of cement based on a dry soil unit weight of 110 pcf may be assumed if needed. Treatment should vary between 12 to 18 inches, depending on the anticipated construction equipment loads. More detailed and final recommendations can be provided during construction.

Final grading should be designed to provide positive drainage away from the building. We suggest exposed soil/landscape areas, if any, within 10 feet of the proposed building be sloped at a minimum of three percent away from the building. Roof leaders and downspouts should discharge onto paved surfaces sloping away from the building or into a closed pipe system channeled away from the building to an approved collector or outfall.

6.2.5 Flatwork Areas

The existing soil in flatwork areas should be scarified to a depth of at least six inches, moisture conditioned and compacted. Once the compacted subgrade has been reached, it is recommended that baserock in paved areas be placed immediately after grading to protect the subgrade soil from drying. Alternatively, the subgrade should be kept moist by watering until the baserock is placed. Rubber-tired heavy equipment, such as a full water truck, should be used to proof roll exposed pavement subgrade areas where pumping is suspected. Proof rolling will determine if the subgrade soil is capable of supporting construction paving equipment without excessive pumping or rutting.

6.2.6 Site Winterization and Unstable Subgrade Conditions

If grading occurs in the winter rainy season, unstable and unworkable subgrade conditions may be present, and compaction of on-site soils may not be feasible. These conditions may be remedied using appropriate soil admixtures, such as lime or other admixtures. More detailed recommendations can be provided during construction. Stabilizing subgrade in small, isolated areas can be accomplished with the approval of the Geotechnical Engineer by over-excavating one foot, placing Tensar BX1100 or TriAx TX-140 geogrid or equivalent geogrid on the soil, and then placing 12 inches of Class 2 baserock on the geogrid. The upper six inches of the baserock should be compacted to at least 90 percent relative compaction. Alternatively, a non-woven stabilization geotextile such as Mirafi 500X overlain by a minimum 18 inches of baserock may be substituted for geogrid and baserock.

6.3 Utility Trench Construction

6.3.1 Trench Backfilling

Utility trenches may be backfilled with onsite soil or import soil pre-approved by the Geotechnical Engineer above the utility bedding and shading materials. If cobbles, rocks or concrete larger than four inches in maximum size are encountered, they should be removed from the fill material prior to placement in the utility trenches.

Pipeline trenches should be backfilled with fill placed in lifts of approximately eight inches in pre-compacted thickness and compacted to the requirements presented in Section 6.2.2. However, thicker lifts can be used, provided the method of compaction is approved by the Geotechnical Engineer, and the required minimum degree of compaction is achieved.

6.3.2 Utility Penetrations at Building Perimeter

Flexible connections at building perimeters should be considered for utility lines going through perimeter foundations. This would provide flexibility during a seismic event. This could be provided by special flexible connections, pipe sleeving with appropriate waterproofing, or other methods.

6.4 Temporary Excavation Slopes

Below-grade construction, if any is ultimately proposed for the project, may require temporary excavation slopes if more than a few feet below existing grade. The Contractor should incorporate all appropriate requirements of OSHA/ Cal OSHA into the design of the temporary construction slopes and shoring system, whichever is used. Excavation safety regulations are provided in the OSHA Health and Safety Standards for Excavations, 29 CFR Part 1926, Subpart P, and apply to excavations greater than five feet in depth.

The Contractor, or his specialty subcontractor, should design temporary construction slopes to conform to the OSHA regulations and should determine actual temporary slope inclinations based on the subsurface conditions exposed at the time of construction. For pre-construction planning purposes, the on-site near-surface materials may be assumed to be granular or weak cohesive materials and categorized as OSHA Type C with temporary slope inclination of no steeper than 1.5:1 (horizontal: vertical) for excavations less than 20 feet deep.

If temporary slopes are left open for extended periods of time, exposure to weather and rain could have detrimental effects such as sloughing and erosion on surficial soils exposed in the excavations. We recommend that all vehicles and other surcharge loads be kept at least 10 feet away from the top of temporary slopes, and that such temporary slopes are protected from excessive drying or saturation during construction. In addition, adequate provisions should be made to prevent water from ponding on top of the slope and from flowing over the slope face. Desiccation or excessive moisture in the excavation could reduce stability and require shoring or laying back side slopes.

6.5 Foundations

We recommend that the proposed structures be found on a conventional shallow foundation. Recommendations for conventional shallow foundations are provided below.

6.5.1 Spread Footing Foundations

The proposed building can be supported on conventional continuous and/or isolated spread footings bearing on undisturbed onsite native soil. Where over excavations below design footing depth is required, the over excavated portion of footing excavation should be backfilled with structural or lean concrete or a Controlled Low Strength Material (CLSM). Footings should be founded a minimum of 24 inches below lowest adjacent finished grade (typically the top of exterior grade) for exterior, perimeter footings, and a minimum of 24 inches below building pad subgrade for interior footings. Continuous footings should have a minimum width of at least 18 inches, and isolated column footings should have a minimum width of at least 24 inches. In addition, footings located adjacent to other footings or utility trenches should bear below an imaginary 1.5:1 (horizontal to vertical) plane projected upward from the bottom edge of the adjacent footings or utility trench. Footing reinforcement should be determined by the project Structural Engineer.

For the design of the footings bearing within tested and approved new fill or on stiff/very stiff native soil, we recommend the allowable bearing pressures presented in Table 6. The allowable pressures provided are net values, as the weight of the footing itself has already been accounted for and can be neglected as a load for design purposes.

Table 6: Allowable Bearing Pressures for Spread Footings

Load Condition	Allowable Bearing Pressure (psf)
Dead Load	4,000
Dead plus Live Loads	5,000
Total Loads (including wind or seismic)	6,000

We estimate that total elastic settlement will be on the order of 1 inch and differential settlement of about ½-inch. We should be consulted during foundation design to further evaluate and refine these estimates based on actual design loads. Geo-Eng should perform a final review the foundation design plans and calculations prior to submission of the plans for approval and construction.

6.5.2 Lateral Resistance

For resistance to lateral loads, an allowable coefficient of friction of 0.35 between the base of the foundation elements and underlying material is recommended. In addition, an ultimate passive resistance equal to an equivalent fluid weighing 350 pounds per cubic foot (pcf) acting against the foundation may be used to resist lateral forces. The top 12 inches of passive resistance at foundations not adjacent to and confined by pavement,

interior floor slab, or hardscape should be neglected. In order to fully mobilize this passive resistance, a lateral footing deflection on the order of one to two percent of the embedment of the footing is required. If it is desired to limit the amount of lateral deflection to mobilize the passive resistance, a proportional safety factor should be applied.

6.5.3 Construction Considerations

Geo-Eng personnel should be retained to observe and confirm that footing excavations prior to formwork and reinforcing steel placement bear in soils suitable for the recommended maximum design bearing pressure. If unsuitable soil is present, the excavation should be deepened until suitable supporting material is encountered. The over excavation should be backfilled using structural or lean concrete up to the bottom of the footing concrete.

Footing excavations should have firm bottoms and be free from excessive slough prior to concrete or reinforcing steel placement. Care should also be taken to prevent excessive wetting or drying of the bearing materials during construction. Extremely wet or dry or any loose or disturbed material in the bottom of the footing excavations should be removed prior to placing concrete. If construction occurs during the winter months, a thin layer of concrete (sometimes referred to as a rat slab) could be placed at the bottom of the footing excavations. This will protect the bearing soil and facilitate removal of water and slough if rainwater fills the excavations.

6.6 Concrete Slabs-on-Grade

6.6.1 General Recommendations

Non-structural concrete interior slab-on-grade floors should be a minimum of five inches in thickness. As a minimum, slab reinforcing should consist of No. 4 steel reinforcement spaced at 18-inch centers each way, and in any case, be sufficient to satisfy the anticipated use and loading of the slab. Slab-on-grade subgrade surfaces should be proof-rolled to provide a smooth, unyielding surface for slab support.

Care should be taken to maintain the minimum recommended moisture content in the subgrade until floor slabs and/or engineered fills are constructed. Positive drainage should also be developed away from the building to prevent water from ponding along the perimeter and affecting future floor slab performance. We recommend a positive cutoff in utility trenches at the structure/building lines to reduce the potential for water migrating through the utility trench backfill to areas under the building.

Slab-on-grade concrete floors with moisture sensitive floor coverings should be underlain by a moisture retarder system constructed between the slab and subgrade. Such a system could consist of four inches of free-draining gravel, such as 3/4-inch, clean, crushed, uniformly graded gravel with less than three percent passing No. 200 sieve, or equivalent, overlain by a relatively impermeable vapor retarder placed between the subgrade soil and the slab. The vapor retarder should be at least 10-mil thick and should conform to the requirements for ASTM E 1745 Class A, B, or C Underslab Vapor Retarders (e.g., Griffolyn Type 65, Griffolyn Vapor Guard, Moistop Ultra C, or equivalent). If additional protection is desired by the owner, a higher quality vapor barrier conforming to the requirements of ASTM E 1745 Class A, with a water vapor transmission rate less than or equal to 0.006 gr/ft^2/hr (i.e., 0.012 perms) per ASTM E 96 (e.g., 15-mil thick "Stego Wrap Class A") may be used in place of the retarder.

The vapor retarder or barrier should be placed directly under the slab. A capillary rock layer or rock cushion is not required if Class A barriers has been used beneath the floor slab and a sand layer is not required over the vapor retarder from a geotechnical standpoint. If sand on top of the vapor retarder is required by the design structural engineer, we suggest the thickness be minimized to less than one inch. If construction occurs in the winter months, water may pond within the sand layer since the vapor retarder may prevent the vertical percolation of rainwater.

ASTM E1643 should be utilized as a guideline for the installation of the vapor retarder. During construction, all penetrations (e.g., pipes and conduits,) overlap seams, and punctures should be completely sealed using a waterproof tape or mastic applied in accordance with the vapor retarder manufacturer's specifications. The vapor retarder or barrier should extend to the perimeter cutoff beam or footing.

6.6.2 Exterior Concrete Flatwork

Exterior concrete flatwork with pedestrian traffic should be at least four inches thick and should be underlain by at least six-inches of aggregate baserock. The subgrade beneath the flatwork should be moisture conditioned and compacted as specified in the grading section of this report.

Control joints should be constructed in accordance with ACI 224 "Control of Cracking in Concrete Structures". In general, for typical flatwork, joints would be required every 24 to 36 times the concrete thickness.

6.7 Retaining/Basement Walls

6.7.1 Lateral Earth Pressures

The following recommended lateral earth design pressures are based on the assumption that on-site soils will be used as wall backfill. For a level backfill condition, unrestrained walls (i.e., walls that are free to deflect or rotate)

should be designed to resist an equivalent fluid pressure of 40 pounds per cubic foot. Restrained walls for a level backfill condition should be designed to resist an equivalent fluid pressure of 40 pounds per cubic foot, plus an additional uniform lateral pressure of 5H pounds per square foot, where H = height of backfill above the top of the wall footing, in feet. For seismic design of walls greater than six feet in retained height, unrestrained and restrained walls with level backfill should be designed to resist an additional uniform load equal to 15H psf, added to the *unrestrained* condition in either case. A seismic increment is not required for site walls retaining less than six feet.

Walls with inclined backfill should be designed for an additional equivalent fluid pressure of one pound per cubic foot for every two degrees of slope inclination from horizontal. Walls subjected to surcharge loads should be designed for an additional uniform lateral pressure equal to 0.33 times the anticipated surcharge load for unrestrained walls, and 0.50 times the anticipated surcharge load for restrained walls.

For resistance to lateral loads, an allowable coefficient of friction of 0.35 between the base of the foundation elements and underlying material is recommended. In addition, an *ultimate* passive resistance equal to an equivalent fluid weighing 350 pounds per cubic foot (pcf) acting against the foundation may be used for lateral load resistance against the sides of the footing perpendicular to the direction of loading where the footing is poured neat against undisturbed material (i.e., native soils or engineered fills). The top foot of passive resistance at foundations not adjacent to and confined by pavement, interior floor slab, or hardscape should be neglected. In order to fully mobilize this passive resistance, a lateral footing deflection on the order of one to two percent of the embedment of the footing is required. If it is desired to limit the amount of lateral deflection to mobilize the passive resistance, a proportional safety factor should be applied.

The lateral earth pressures herein do not include any factor-of-safety and are not applicable for submerged soils/hydrostatic loading. Additional recommendations may be necessary if submerged conditions are to be included in the design.

6.7.2 Retaining Wall Foundations

Retaining and below-grade walls may be founded on spread footing foundations following the recommendations outlined in section 6.5. Assuming a minimum 24-inch footing embedment below lowest adjacent grade, retaining wall footings may be designed using an allowable bearing capacity based off Table 6, in section 6.5.1.

6.7.3 Retaining Wall Drainage

The aforementioned recommended lateral pressures assume that walls are fully back drained to prevent the build-up of hydrostatic pressures. To reduce the potential for hydrostatic loading on retaining and below-grade walls due to possible seasonal subsurface groundwater seepage, a subsurface drain system may be considered for construction behind below-grade walls. Alternatively, below-grade walls can be designed to accommodate an additional hydrostatic pressure increment.

The drain system should consist of free-draining granular soils containing less than five percent fines passing a No. 200 sieve, placed adjacent to the wall. The free-draining granular material should be graded to prevent the intrusion of fines, or else should be encapsulated in a suitable filter fabric. A drainage system consisting of perforated drain lines (minimum 4" diameter placed near the base of the wall) should be used to intercept and discharge water which would tend to saturate the backfill. Sub drains constructed to protect interior spaces should have the invert elevation of the sub drain a minimum of six-inches below the interior finished floor elevation. Where used, drain lines should be embedded in a uniformly graded filter material and provided with adequate clean-outs for periodic maintenance. An impervious soil should be used in the upper one-foot layer of backfill to reduce the potential for water infiltration. As an alternative, a prefabricated drainage structure, such as geo-composite, may be used as a substitute for the granular backfill adjacent to the wall.

The retaining wall drainage system should be sloped to outfall to the storm drain system or other appropriate facility. The foundation of the retaining wall should be protected and prevented from any erosion of the surroundings.

6.7.4 Retaining Wall Backfill Compaction

Retaining wall backfill less than five feet deep should be compacted to at least 90 percent relative compaction using light compaction equipment. Backfill greater than a depth of five feet should be compacted to at least 95 percent relative compaction. If heavy compaction equipment is used, the walls should be appropriately designed to withstand loads exerted by the heavy equipment, and/or temporarily braced. Over compaction or surcharge from heavy equipment too close to the wall may cause excessive lateral earth pressures which could result in excessive outward wall movement.

6.8 Observation and Testing During Construction

We recommend that Geo-Eng be retained to provide observation and testing services during site preparation, site grading, pavement section preparation, utility construction, foundation excavation, and to observe final site drainage. This is to observe compliance with the design concepts, specifications and recommendations, and to allow for possible changes if subsurface conditions differ from those anticipated prior to the start of construction.

7.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

The recommendations of this report are based upon the soil and conditions encountered in the field explorations (i.e., borings). If variations or undesirable conditions are encountered during construction, Geo-Eng should be contacted so that supplemental recommendations may be provided.

This report is issued with the understanding that it is the responsibility of the owner or his representatives to see that the information and recommendations contained herein are called to the attention of the other members of the design team and incorporated into the plans and specifications, and that the necessary steps are taken to see that the recommendations are implemented during construction.

The findings and recommendations presented in this report are valid as of the present time for the development as currently proposed. However, changes in the conditions of the property or adjacent properties may occur with the passage of time, whether by natural processes or the acts of other persons. In addition, changes in applicable or appropriate standards may occur through legislation or the broadening of knowledge. Accordingly, the findings and recommendations presented in this report may be invalidated, wholly or in part, by changes outside our control. Therefore, this report is subject to review by Geo-Eng after a period of three (3) years has elapsed from the date of issuance of this report. In addition, if the currently proposed design scheme as noted in this report is altered, Geo-Eng should be provided the opportunity to review the changed design and provide supplemental recommendations as needed.

Recommendations are presented in this report which specifically request that Geo-Eng be provided the opportunity to review the project plans prior to construction and that we be retained to provide observation and testing services during construction. The validity of the recommendations of this report assumes that Geo-Eng will be retained to provide these services.

This report was prepared upon your request for our services, and in accordance with currently accepted geotechnical engineering practice. No warranty based on the contents of this report is intended, and none shall be inferred from the statements or opinions expressed herein. The scope of our services for this report did not include an environmental assessment or investigation for the presence or absence of wetlands or hazardous or toxic materials in the soil, surface water, groundwater or air, on, below or around this site. Any statements within this report or on the attached figures, logs or records regarding odors noted or other items or conditions observed are for the information of our client only.

8.0 REFERENCES

American Concrete Institute, 2008, Guide for Design and Construction of Concrete Parking Lots: ACI Publication 330R-08.

American Society of Civil Engineers, 2010, Minimum Design Loads for Buildings and Other Structures; ASCE/SEI Standard 7-10.

Association of Bay Area Governments (ABAG), September 2003, Liquefaction Susceptibility maps, based on William Lettis and Associates and USGS mapping, website: http://www.abag.ca.gov

Blake, Thomas F., EQSearch version 3.00, EQFault1 version 3.00, FriskSP version 4.00, software and manuals with 2004 CGS fault model updates.

Brabb, E.E., Graymer, R.W., and Jones, D.L., 2000, Geologic map and map database of the Palo Alto 30' X 60' quadrangle, California: U.S. Geological Survey, Miscellaneous Field Studies Map MF-2332, scale 1:100,000.

California Building Code, 2016, Chapter 18.

California Department of Transportation (Caltrans), Memorandum: Foundation Report for Laurel Curve Soil Nail Wall

California Department of Transportation (Caltrans), ARS Online Website: http://dap3.dot.ca.gov/ARS_Online/ (Accessed May 2018)

California Division of Mines and Geology (CDMG), Digital Images of Official Maps of Alquist-Priolo Earthquake Fault Zones of California, Central Coast Region, DMG CD 2000-004, 2000.

California Division of Mines and Geology (CDMG), 1996, Probabilistic Seismic Hazard Assessment for the State of California: CDMG Open-File Report 96-08.

California Geological Survey, 2008, Guidelines for evaluating and mitigating seismic hazards in California: California Geological Survey Special Publication 117A, 98 p.

California Geological Survey, 2003, Seismic Hazard Zone Report for the Cupertino 7.5-Minute Quadrangle, Santa Clara County, California: Seismic Hazard Zone Report 090, 55 p.

California Geological Survey, 2003, State of California Seismic Hazard Zones, Cupertino Quadrangle, Official Map, Released: July 2, 2003.

California Geological Survey, 1996, Probabilistic seismic hazard assessment for the state of California, DMG Open-File report 96-08 (USGS Open-File Report 96-706), and updated Appendix A, Appendix A – 2002 California Fault Parameters.

Cao, T., Bryant, W.A., Rowshandel, B., Branum, D., and Wills, C.J., The Revised 2002 California Probabilities Seismic Hazard Maps, June 2003.

Dibblee, T.W., and Minch, J.A., 2007, Geologic map of the Cupertino and San Jose West quadrangles, Santa Clara

and Santa Cruz Counties, California: Dibblee Geological Foundation, Dibblee Foundation Map DF-351, scale 1:24,000.

National Earthquake Hazards Reduction Program (NEHRP), 2015, Recommended Seismic Provisions for New Buildings and Other Structures; FEMA P-1050-1/2015 Edition.

Graymer, R.W., Moring, B.C., Saucedo, G.J., Wentworth, C.M., Brabb, E.E., and Knudsen, K.L., 2006, Geologic Map of the San Francisco Bay Region, California: U.S. Geological Survey Scientific Investigations Map 2918, Scale 1:275,000.

Graymer, R.W., Jones, D.L. and Brabb, E.E., 1996, Preliminary Geologic Map Emphasizing Bedrock Formations in Alameda County, California: Derived from the Digital Database Open-File 96-252; U.S. Geological Survey.

Gregg Drilling, Northern California Groundwater Depth Chart,
http://www.greggdrilling.com/Resources/water_table_n.html

Hart, E. W., 1983, Summary Report: Fault Evaluation Program, 1981 – 1982, Area-Northern Coast Ranges region, California, California Department of Conservation, Division of Mines and Geology, Open-File Report 83-10.

Hart, E.W., and Bryant, W.A., 1997, Fault-rupture hazard zones in California: California Geological Survey Special Publication 42, revised 1997 with Supplements 1 and 2 added 1999, 38 p.

Helley, E.J. and Graymer, R.W., 1997, Quaternary Geology of Alameda County and Surrounding Areas, California: Derived from the Digital Database Open-File 97-97; U.S. Geological Survey.

Jennings, C.W., and Bryant, W.A., compilers, 2010: 2010 Fault activity map of California: California Geological Survey, Geologic Data Map No. 6, scale 1:750,000, with 94-page Explanatory Text booklet.

Page, B.M., 1966, Geology of the Coast Ranges of California: in Bailey, E.H., Jr., editor, Geology of Northern California: California Geological Survey Bulletin 190, p. 255-276.

Sowers, J.M., 1999, Creek & Watershed Map of Fremont & Vicinity: Oakland Museum of California, Oakland, CA, 1:25,800 scale.

Tokimatsu, K. and Seed, H.B., 1987, Evaluation of Settlements in Sands due to Earthquake Shaking: ASCE Journal of Geotechnical Engineering, Vol. 113, No. 8, pp. 861-878.

University of California, Berkeley, Bancroft Library: Historic Maps of California – San Francisco Bay Area: http://sunsite.berkeley.edu/histopo/

U.S. Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey;
http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

U.S. Geological Survey, 1999, Earthquake probabilities in the San Francisco Bay region: 2000 to 2030 – A summary of findings, by Working Group on California Earthquake Probabilities, Open File Report 99-517, Online Version 1.0.

U. S. Geological Survey Earthquake Information Center, 2003, website earthquake.usgs.gov.

U. S. Geological Survey, 2012, San Leandro Quadrangle, California – Alameda Co. 7.5 Minute Series (Topographic).

U. S. Geological Survey, Earthquake Hazards Program website eqhazmaps.usgs.gov.

2007 Working Group on California Earthquake Probabilities (WGCEP), 2008, The Uniform California Earthquake Rupture Forecast, Version 2 (UCERF 2): U.S. Geological Survey Open-File Report 2007-1437.

Wagner, D. L., and others, compilers, 1991, Geologic map of the San Francisco – San Jose quadrangle: California Geological Survey, Regional Geologic Map 5A; scale 1:250,000.

Wentworth, C.M., Blake, M.C., McLaughlin, R.J., and Graymer, R.W., 1999, Preliminary geologic map of the San Jose 30 X 60-minute quadrangle, California: a digital database: U.S. Geological Survey, Open-File Report OF-98-795, scale 1:100,000.

Youd, T.L., and Hoose, S.N., 1978, Historic ground failures in northern California triggered by earthquakes: U.S. Geological Survey Professional Paper 993, 177 p., 5 pls. in pocket.

Youd, T.L., Idriss, I.M., Andrus, R.D., Arango, I., Castro, G., Christian, J.T., Dobry, R., Finn, W.D.L., Harder, L.F. Jr., Hynes, M.E., Ishihara, K., Koester, J.P., Liao, S.S.C., Marcuson, W.F. III, Martin, G.R., Mitchell, J.K., Moriwaki, Y., Power, M.S., Robertson, P.K., Seed, R.B., and Stokoe, K.H. II, 2001, Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils: ASCE Journal of Geotechnical and Environmental Engineering, Vol. 127, No. 10, October 2001, p. 817-833.

Publications may have been used as general reference and not specifically cited in the report text.

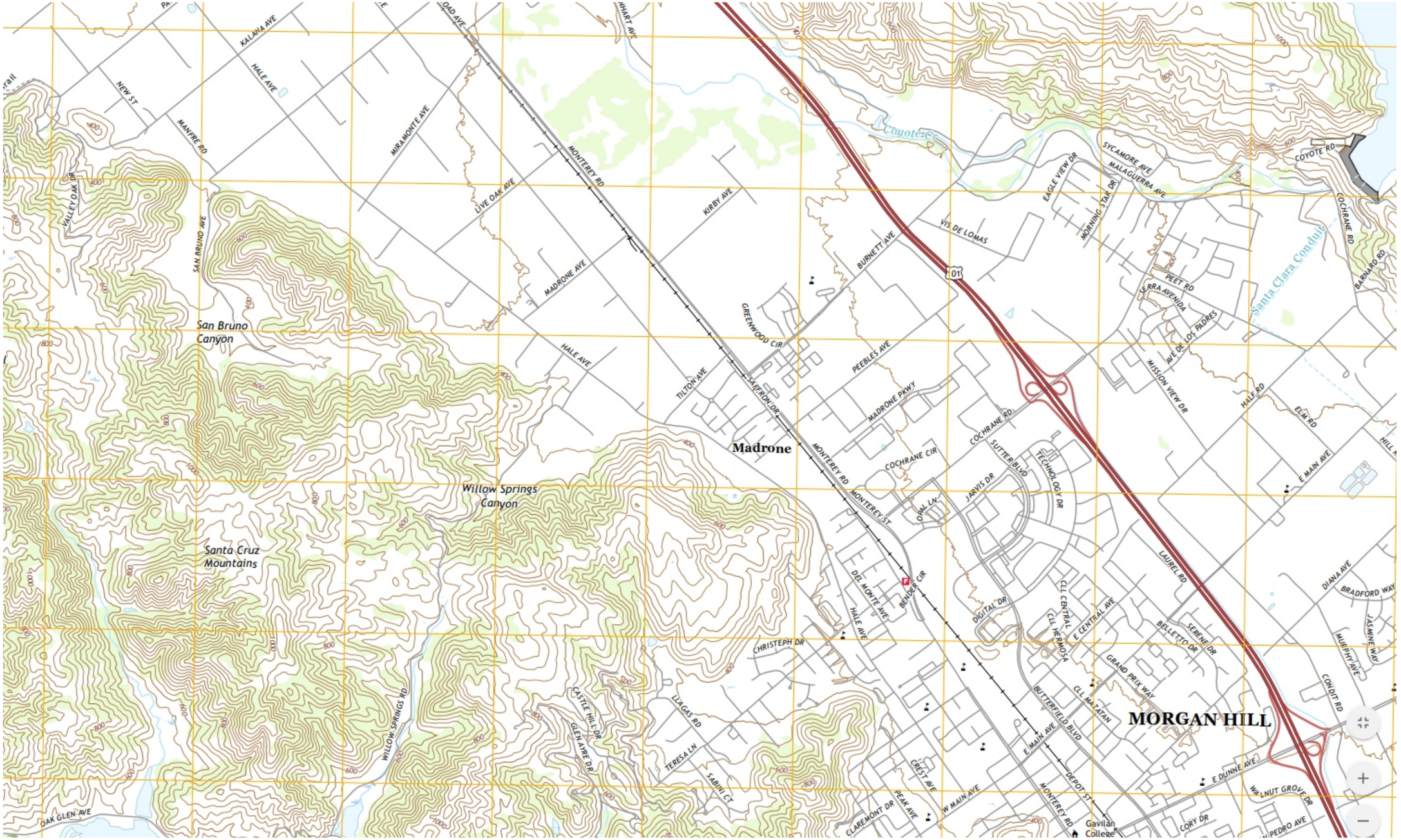
FIGURES

Figure 1 – Site Vicinity Map
Figure 2 – Site Development Plan
Figure 3 – Site Plan and Site Geology Map
Figure 4 – Site Vicinity Geologic Map
Figure 5 – Regional Fault Map
Figure 6 – Seismic Hazard Map

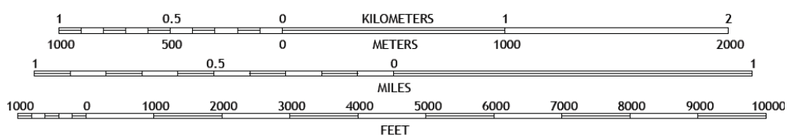




QUADRANGLE LOCATION



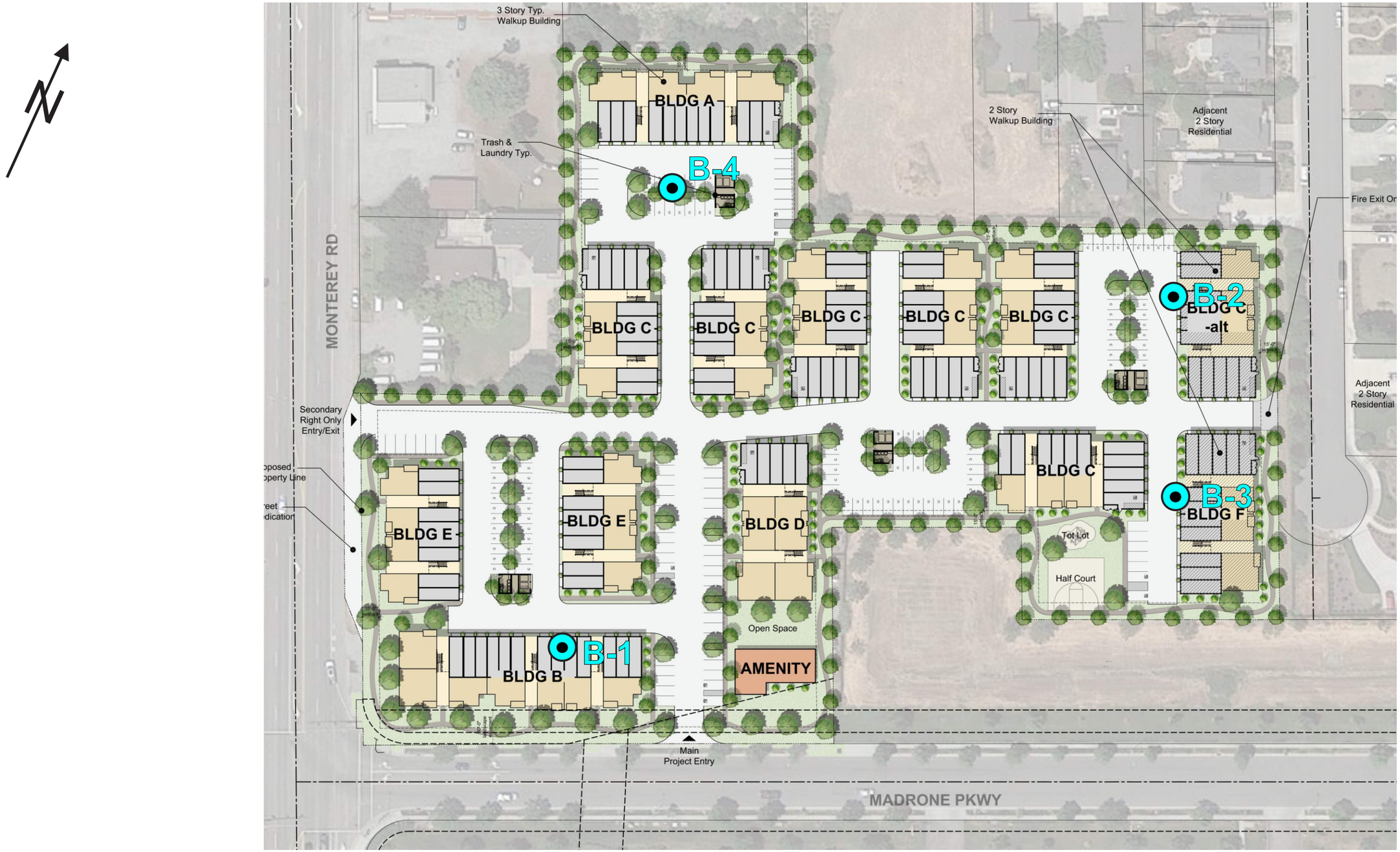
Source: USGS, Morgan Hill Quadrangle, Santa Clara County, CA, TNM Geospatial, 2018



GEO-ENGINEERING SOLUTIONS, INC.
A PEI COMPANY
Geotechnical Engineering • Engineering Geology • Materials Testing

Residential Development
18960 Monterey Road
Morgan Hill, California

79-1251	July 2020
Site Vicinity Map	Figure 1

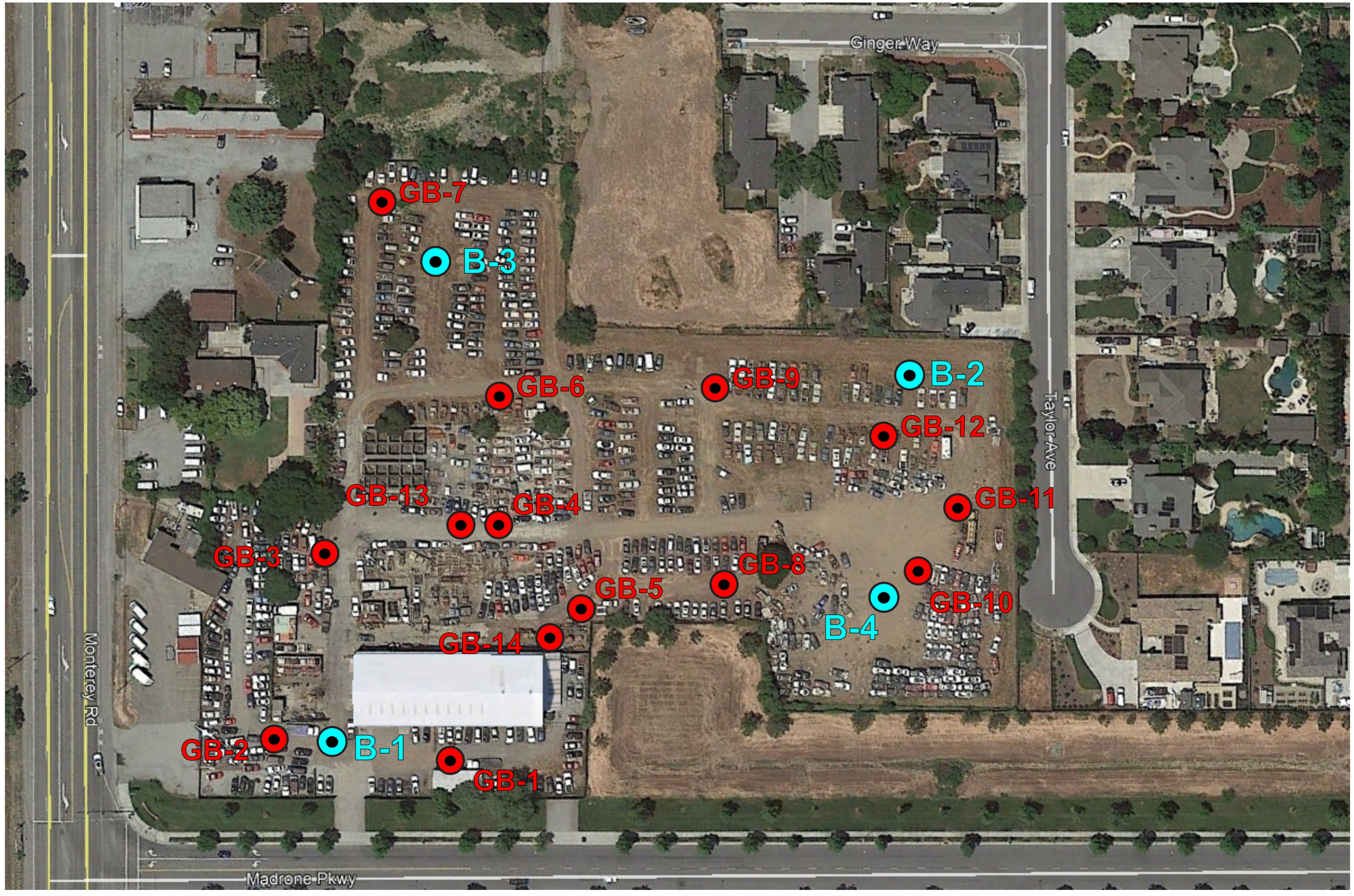


Approximate boring location

GEO-ENGINEERING SOLUTIONS, INC.
A PEI COMPANY
Geotechnical Engineering • Engineering Geology • Materials Testing

Residential Development
18960 Monterey Road
Morgan Hill, California

79-1251	July 2020
Site Development Plan	Figure 2



Base Map Reference: Google Earth

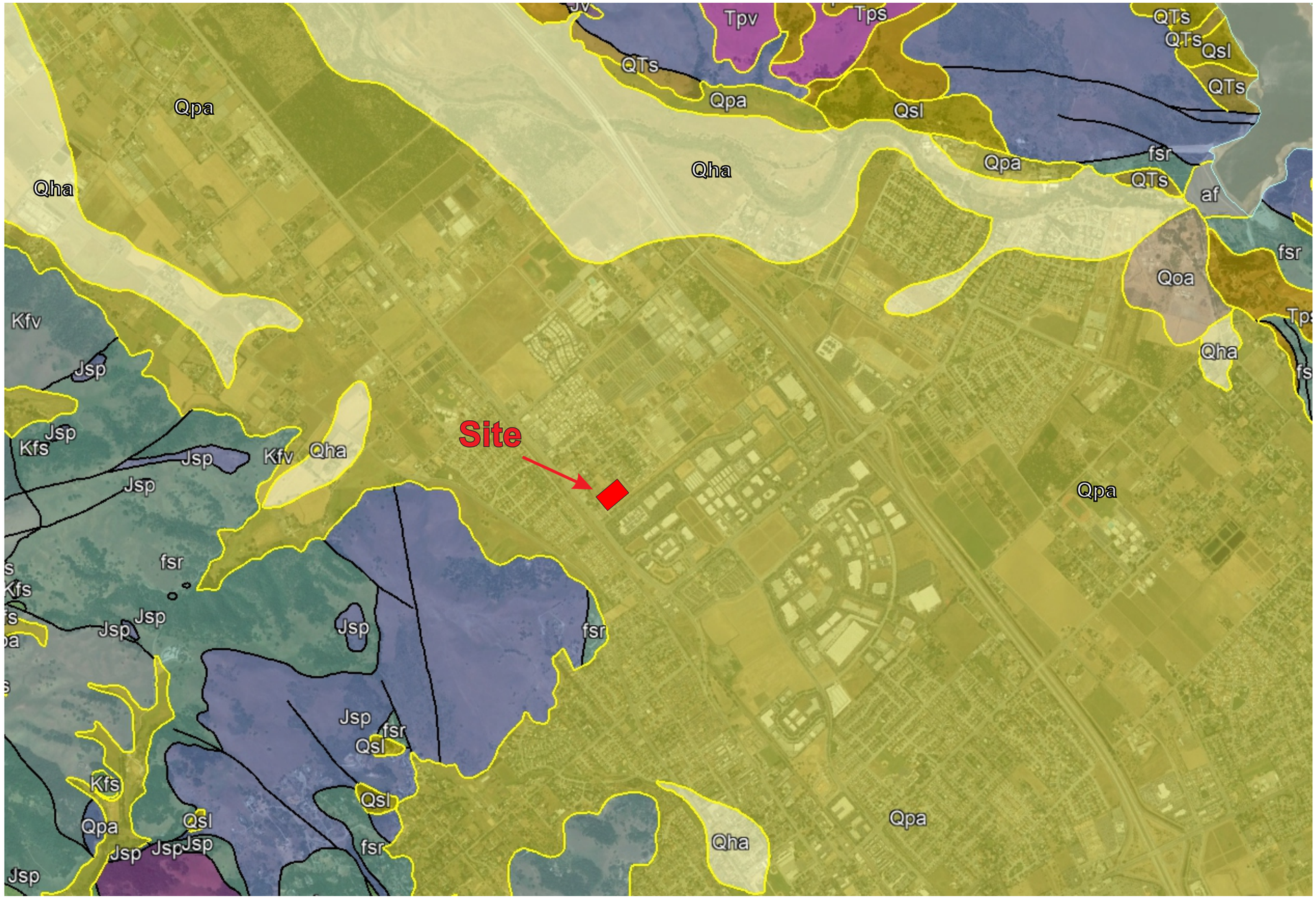
Approximate boring location (Geo-Eng, July 2020)

Approximate boring location (GeoSolve, May/June 2020)

GEO-ENGINEERING SOLUTIONS, INC.
A PEI COMPANY
Geotechnical Engineering • Engineering Geology • Materials Testing

Residential Development
18960 Monterey Road
Morgan Hill, California

79-1251	July 2020
Site and Boring Location Plan	Figure 3



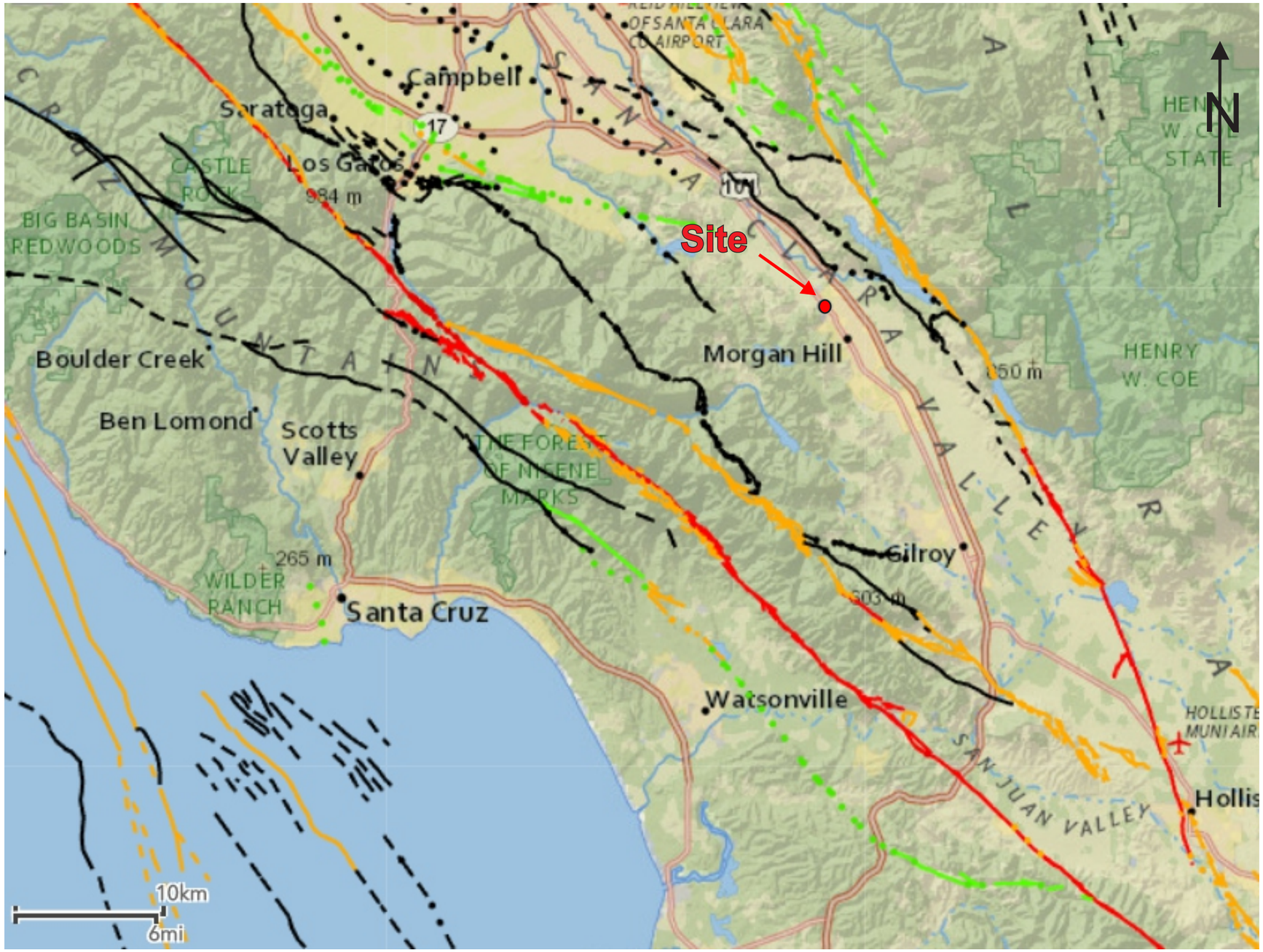
af - Artificial Fill
Qha - Alluvium (Holocene)
Qsl - Hillslope Deposits (Quaternary)
Qpa - Alluvium (Pliestocene)
Qoa - Alluvium (Early Pleistocene)
QTs - Sediments (early Pleistocene and/or Pliocene)
Tps - Sedimentary rocks (ppliocene)
Tpv - Volcanic rocks (Pliocene)
fsr - Franciscan Complex Melange (Eocene, Paleocene and/or Late Cretaceous)
Kfs - Franciscan Complex sedimentary rocks (Cretaceous)
Kfv - Franciscan Complex volcanic rocks (Cretaceous)
Jsp - Great Valley Complex Serpentinite (Jurassic)

GEO-ENGINEERING SOLUTIONS, INC.
A PEI COMPANY
Geotechnical Engineering • Engineering Geology • Materials Testing

Residential Development
18960 Monterey Road
Morgan Hill, California

79-1251	July 2020
Site Vicinity Geologic Map	Figure 4

- Unspecified age, well constrained location
- Unspecified age, moderately constrained location
- Unspecified age, inferred location
- Undifferentiated Quaternary (< 130,000 years), well constrained location
- Undifferentiated Quaternary (< 130,000 years), moderately constrained location
- Undifferentiated Quaternary (< 130,000 years), inferred location
- Middle and late Quaternary (< 1.6 million years), well constrained location
- Middle and late Quaternary (< 1.6 million years), moderately constrained location
- Middle and late Quaternary (< 1.6 million years), inferred location
- Latest Quaternary (<15,000 years), well constrained location
- Latest Quaternary (<15,000 years), moderately constrained location
- Latest Quaternary (<15,000 years), inferred location
- Late Quaternary (< 130,000 years), well constrained location
- Late Quaternary (< 130,000 years), moderately constrained location
- Late Quaternary (< 130,000 years), inferred location
- Historical (< 150 years), well constrained location
- Historical (< 150 years), moderately constrained location
- Historical (< 150 years), inferred location
- Class B (various age), well constrained location
- Class B (various age), moderately constrained location
- Class B (various age), inferred location



Base Map Source: USGS Quaternary Fault Report

GEO-ENGINEERING SOLUTIONS, INC.
A PB COMPANY
Geotechnical Engineering • Engineering Geology • Materials Testing

Residential Development 18960 Monterey Road Morgan Hill, California	79-1251 | July 2020
	Regional Fault Map | Figure 5

N

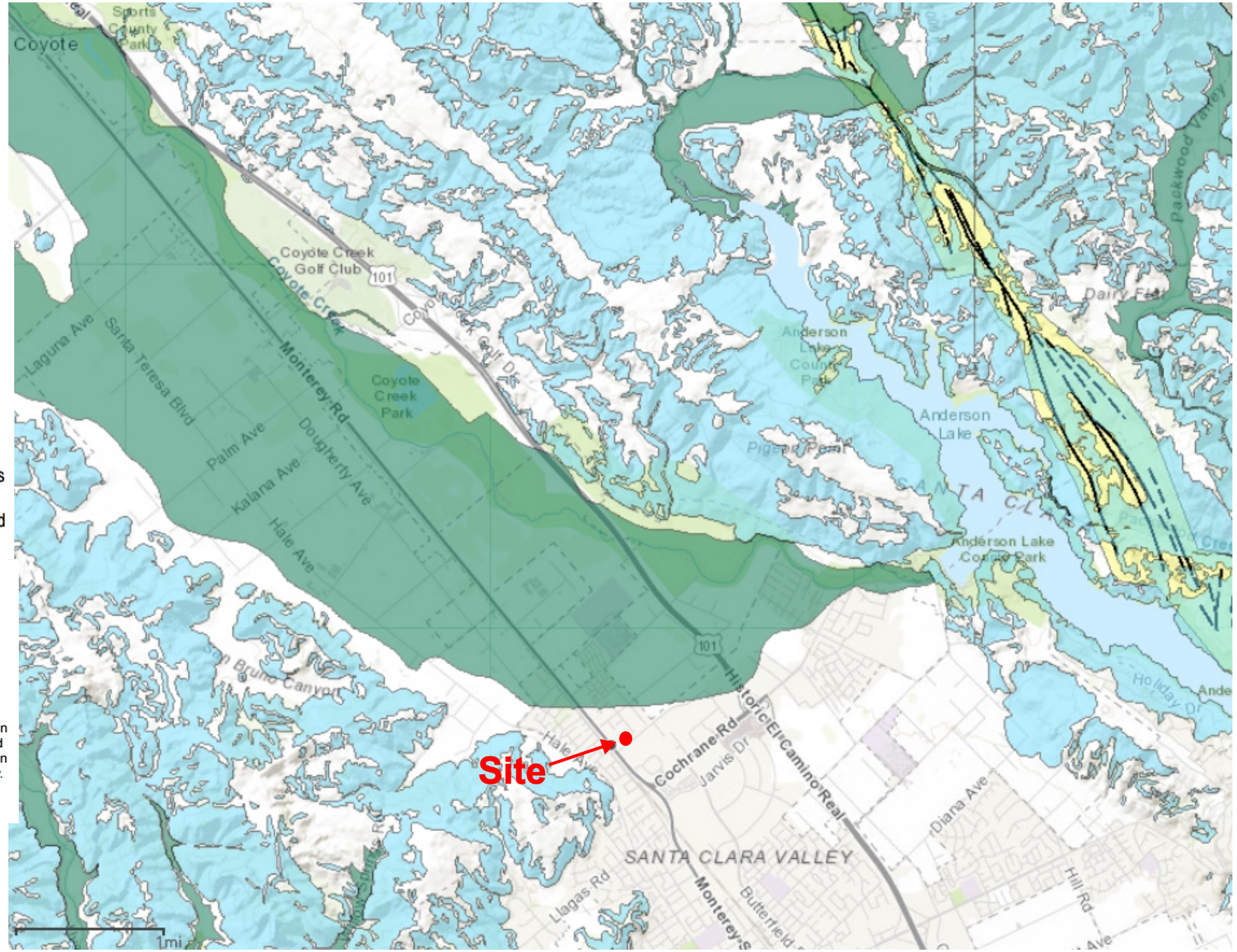
SEISMIC HAZARD ZONES

Liquefaction Zones
Areas where historical occurrence of liquefaction, or local geological, geotechnical and ground water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Earthquake-Induced Landslide Zones
Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Earthquake Fault Zones
Zone boundaries are delineated by straight-line segments; the boundaries define the zone encompassing active faults that constitute a potential hazard to structures from surface faulting or fault creep such that avoidance as described in Public Resources Code Section 2621.5(a) would be required.

Active Fault Traces
Faults considered to have been active during Holocene time and to have potential for surface rupture: Solid Line in Black or Red where Accurately Located; Long Dash in Black or Solid Line in Purple where Approximately Located; Short Dash in Black or Solid Line in Orange where Inferred; Dotted Line in Black or Solid Line in Rose where Concealed; Query (?) indicates additional uncertainty. Evidence of historic offset indicated by year of earthquake-associated event or C for displacement caused by fault creep.



Earthquake Zones of Required Investigation, Mountain View Quadrangle, California Geologic Survey

GEO-ENGINEERING SOLUTIONS, INC.
A PEI COMPANY
Geotechnical Engineering • Engineering Geology • Materials Testing

Residential Development 18960 Monterey Road Morgan Hill, California	79-1251	July 2020
	Seismic Hazard Map	Figure 6

APPENDIX A

FIELD EXPLORATION
Key to Exploratory Boring Logs
Boring Logs

Unified Soil Classification (USC) System (from ASTM D 2487)

Major Divisions				Typical Names
Course-Grained Soils More than 50% retained on the 0.075 mm (No. 200) sieve	**Gravels** 50% or more of course fraction retained on the 4.75 mm (No. 4) sieve	Clean Gravels	GW	Well-graded gravels and gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels and gravel-sand mixtures, little or no fines
		Gravels with Fines	GM	Silty gravels, gravel-sand-silt mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	Sands 50% or more of course fraction passes the 4.75 (No. 4) sieve	Clean Sands	SW	Well-graded sands and gravelly sands, little or no fines
			SP	Poorly graded sands and gravelly sands, little or no fines
		Sands with Fines	SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils More than 50% passes the 0.075 mm (No. 200) sieve	**Silts and Clays** Liquid Limit 50% or less		ML	Inorganic silts, very fine sands, rock four, silty or clayey fine sands
			CL	Inorganic clays of low to medium plasticity, gravelly/sandy/silty/lean clays
			OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays Liquid Limit greater than 50%		MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts
			CH	Inorganic clays or high plasticity, fat clays
			OH	Organic clays of medium to high plasticity
Highly Organic Soils			PT	Peat, muck, and other highly organic soils

PENETRATION RESISTANCE (RECORDED AS BLOWS/0.5 FEET)

SAND AND GRAVEL		SILT AND CLAY		
RELATIVE DENSITY	N-VALUE (BLOWS/FOOT)*	CONSISTENCY	N-VALUE (BLOWS/FOOT)*	COMPRESSIVE STRENGTH
Very Loose	0 - 3	Very Soft	0 - 1	0 - 0.25
Loose	4 - 10	Soft	2 - 4	0.25 - 0.50
Medium Dense	11 - 29	Medium Stiff	5 - 7	0.50 - 1.0
Dense	30 - 49	Stiff	8 - 14	1.0 - 2.0
Very Dense	50 +	Very Stiff	15 - 29	2.0 - 4.0
		Hard	30 +	Over 4.0

Particle Sizes		
Components		*Size or Sieve Number*
Boulders		Over 12 inches
Cobbles		3 to 12 inches
Gravels	Coarse	3/4 to 3 inches
	Fine	Number 4 to 3/4 inch
Sand	Coarse	Number 10 to Number 4
	Medium	Number 40 to Number 10
	Fine	Number 200 to Number 40
Fines (Silt and Clay)		Below Number 200

Soil Moisture	
Descriptor	*Description*
Dry	Dry of Standard Proctor Optimum
Damp	Sand Dry
Moist	Near Standard Proctor Optimum
Wet	Wet of Standard Proctor Optimum
Saturated	Free Water in Sample


Bulk Sample


Standard Penetration Test


2.5 Inch Modified California Sampler

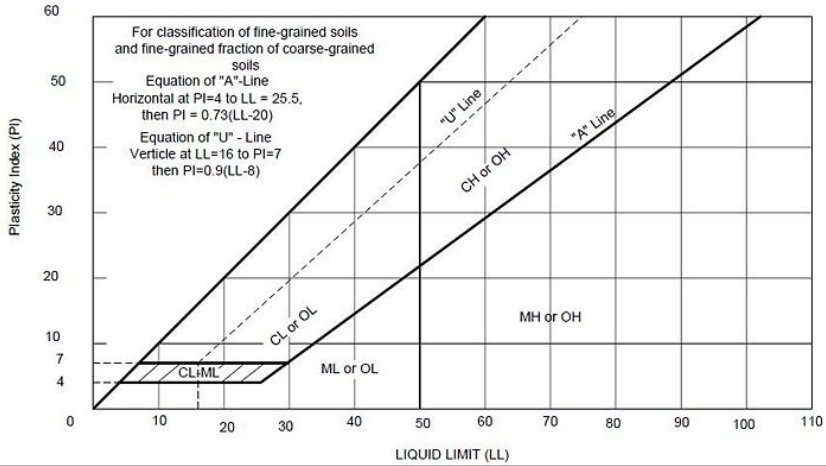

Shelby Tube


First Water Level Reading


Final Water Level Reading

Blow Count
The number of blows of the sampling hammer required to drive the sampler through each of three 6-inch increments. Less than three increments may be reported if more than 50 blows are counted for any increment. The notation 50/5" indicates 50 blows recorded for 5 inches of penetration. Note all of the field blow counts recorded using a Modified California sampler were converted to equivalent SPT blow counts.

N-Value
Number of blows 140 LB hammer falling 30 inches to drive a 2 inch outside diameter (1-3/8 innch I.D.) split barrel sampler the last 12 inches of an 18 inch drive (ASTM-1586 Standard Penetration Test).



General Notes:

1. The boring locations were determined by pacing, sighting and/or measuring from site features. Locations are approximate. Elevations of borings (if included) were determined by interpolation between plan contours or from another source identified in the report. The location and elevation of borings should be considered accurate only to the degree implied by the method.

2.The stratification lines represent the approximate boundary between soil types. The transition may be gradual.

3. Water level readings in the drill holes were recorded at the time and under the conditions stated on the boring logs. It should be noted that flucuations in the level of groundwater may occur due to variations in rainfall, tides and other factors at the time measurements were made

GEO-ENGINEERING SOLUTIONS, INC.
A PEI COMPANY
Geotechnical Engineering • Engineering Geology • Materials Testing

Key to Exploratory Boring Logs

GEO-ENGINEERING SOLUTIONS, INC.
A PES COMPANY
Geotechnical Engineering • Engineering Geology • Materials Testing

2570 San Ramon Valley Blvd, Suite A102
San Ramon, CA 94583
Telephone: 925433450

BORING NUMBER B-1

CLIENT Jemcor Development Partners
PROJECT NAME Residential Development - 18960 Monterey Road
PROJECT NUMBER 79-1251
PROJECT LOCATION 18960 Monterey Road, Morgan Hill, CA
DATE STARTED 7/16/20 **COMPLETED** 7/16/20
GROUND ELEVATION 354 ft **HOLE SIZE** 8
DRILLING CONTRACTOR Exploration Geoservices Inc.
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger
AT TIME OF DRILLING ---
LOGGED BY CK **CHECKED BY** CJF
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	SPT BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		(SP) **Gravelly SAND** : Red to brown, moist, medium dense										
			MC 1-1		5-3-7 (10)							
			MC 1-2		9-14-18 (32)							
5		Becomes dense										
			MC 1-3		20-21-29 (50)							
10		Becomes dense to very dense, with layers of sandy gravel										
15												
			SPT 1-4		21-24-27 (51)							
20												

(Continued Next Page)

GEO-ENGINEERING SOLUTIONS, INC.
A PES COMPANY
Geotechnical Engineering • Engineering Geology • Materials Testing

2570 San Ramon Valley Blvd, Suite A102
San Ramon, CA 94583
Telephone: 925433450

BORING NUMBER B-1

CLIENT Jemcor Development Partners **PROJECT NAME** Residential Development - 18960 Monterey Road

PROJECT NUMBER 79-1251 **PROJECT LOCATION** 18960 Monterey Road, Morgan Hill, CA

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	SPT BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
20		(SP) **Gravelly SAND** : Red to brown, moist, medium dense *(continued)*										
25		Becomes dark brown										
30			SPT 1-5		18-19-20 (39)							

Bottom of borehole at 30.0 feet.

GEO-ENGINEERING SOLUTIONS, INC.
Geotechnical Engineering • Engineering Geology • Materials Testing

2570 San Ramon Valley Blvd, Suite A102
San Ramon, CA 94583
Telephone: 925433450

BORING NUMBER B-2

CLIENT Jemcor Development Partners
PROJECT NAME Residential Development - 18960 Monterey Road
PROJECT NUMBER 79-1251
PROJECT LOCATION 18960 Monterey Road, Morgan Hill, CA
DATE STARTED 7/16/20 **COMPLETED** 7/16/20
GROUND ELEVATION 353 ft **HOLE SIZE** 8
DRILLING CONTRACTOR Exploration Geoservices Inc.
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger
AT TIME OF DRILLING ---
LOGGED BY CK **CHECKED BY** CJF
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	SPT BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		(SM) **Silty SAND** : Red to brown, moist, medium dense to dense										
			MC		13-10-8 (18)							
			MC		8-12-23 (35)		114	9				32
5		Becomes dense										
		(GW) **Well Graded Sandy GRAVEL** : Red to brown, moist, dense										
			MC		21-17-13 (30)		110	7				7
10												
15												
		(SW) **Well Graded Gravelly SAND** : Red to brown, moist, dense										
			SPT		14-20-20 (40)			11				11
20												

(Continued Next Page)

GEO-ENGINEERING SOLUTIONS, INC.
A PES COMPANY
Geotechnical Engineering • Engineering Geology • Materials Testing

2570 San Ramon Valley Blvd, Suite A102
San Ramon, CA 94583
Telephone: 925433450

BORING NUMBER B-2

CLIENT Jemcor Development Partners **PROJECT NAME** Residential Development - 18960 Monterey Road

PROJECT NUMBER 79-1251 **PROJECT LOCATION** 18960 Monterey Road, Morgan Hill, CA

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	SPT BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
20		(SW) **Well Graded Gravelly SAND** : Red to brown, moist, dense *(continued)*										
25		(CL) **Gravelly Sandy CLAY** : Brown, moist, hard										
			SPT		14-14-48 (62)			8				
30		Bottom of borehole at 30.0 feet.										

GEO-ENGINEERING SOLUTIONS, INC.
2570 San Ramon Valley Blvd, Suite A102
San Ramon, CA 94583
Telephone: 925433450

BORING NUMBER B-3

CLIENT Jemcor Development Partners
PROJECT NAME Residential Development - 18960 Monterey Road
PROJECT NUMBER 79-1251
PROJECT LOCATION 18960 Monterey Road, Morgan Hill, CA
DATE STARTED 7/16/20 **COMPLETED** 7/16/20
GROUND ELEVATION 350 ft **HOLE SIZE** 8
DRILLING CONTRACTOR Exploration Geoservices Inc.
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger
AT TIME OF DRILLING ---
LOGGED BY CK **CHECKED BY** CJF
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	SPT BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		(GW) **Well Graded Sandy GRAVEL** : Red to brown, moist, medium dense to dense										
			MC 3-1		13-20-16 (36)		107	7				11
			MC 3-2		13-13-11 (24)		103	9				
5												
		(GP) **Poorly Graded Sandy GRAVEL** : Red to brown, moist, dense										
			MC 3-3		15-23-18 (41)		129	10				10
10												
15												
		(SM) **Silty SAND** : Red to brown, moist, medium dense to dense, with gravels										
			MC 3-4		5-10-33 (43)			18				
20												

(Continued Next Page)

GEO-ENGINEERING SOLUTIONS, INC.
A PES COMPANY
Geotechnical Engineering • Engineering Geology • Materials Testing

2570 San Ramon Valley Blvd, Suite A102
San Ramon, CA 94583
Telephone: 925433450

BORING NUMBER B-3

CLIENT Jemcor Development Partners **PROJECT NAME** Residential Development - 18960 Monterey Road

PROJECT NUMBER 79-1251 **PROJECT LOCATION** 18960 Monterey Road, Morgan Hill, CA

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	SPT BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
20		(SM) **Silty SAND** : Red to brown, moist, medium dense to dense, with gravels *(continued)*										
		(SP) **Gravelly SAND** : Red to brown, moist, medium dense to dense										
25												
		(SW) **Well Graded Gravelly SAND** : Red to brown, moist, medium dense to dense										
30			SPT 3-5		15-16-17 (33)			8				7

Bottom of borehole at 30.0 feet.

GEO-ENGINEERING SOLUTIONS, INC.
A PES COMPANY
Geotechnical Engineering • Engineering Geology • Materials Testing

2570 San Ramon Valley Blvd, Suite A102
San Ramon, CA 94583
Telephone: 925433450

BORING NUMBER B-4

CLIENT Jemcor Development Partners
PROJECT NAME Residential Development - 18960 Monterey Road
PROJECT NUMBER 79-1251
PROJECT LOCATION 18960 Monterey Road, Morgan Hill, CA
DATE STARTED 7/16/20 **COMPLETED** 7/16/20
GROUND ELEVATION 354 ft **HOLE SIZE** 8
DRILLING CONTRACTOR Exploration Geoservices Inc.
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger
AT TIME OF DRILLING ---
LOGGED BY CK **CHECKED BY** CJF
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	SPT BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		(SP) **Gravelly SAND** : Red to brown, moist, medium dense										
			MC 4-1		4-9-7 (16)							
			MC 4-2		8-10-10 (20)							
5		Becomes dense										
			MC 4-3		14-23-16 (39)							
10												
15												
			SPT 4-4		14-18-16 (34)							
20												

(Continued Next Page)

GEO-ENGINEERING SOLUTIONS, INC.
A PES COMPANY
Geotechnical Engineering • Engineering Geology • Materials Testing

2570 San Ramon Valley Blvd, Suite A102
San Ramon, CA 94583
Telephone: 925433450

BORING NUMBER B-4

CLIENT Jemcor Development Partners **PROJECT NAME** Residential Development - 18960 Monterey Road

PROJECT NUMBER 79-1251 **PROJECT LOCATION** 18960 Monterey Road, Morgan Hill, CA

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	SPT BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
20		(SP) **Gravelly SAND** : Red to brown, moist, medium dense *(continued)*										
25		(CL) **Gravelly Sandy CLAY** : Grey, moist, hard	SPT 4-5									
30		Bottom of borehole at 30.0 feet.										

APPENDIX B

LABORATORY TEST RESULTS
Grain Size Distribution Test Results
Corrosivity Test Results

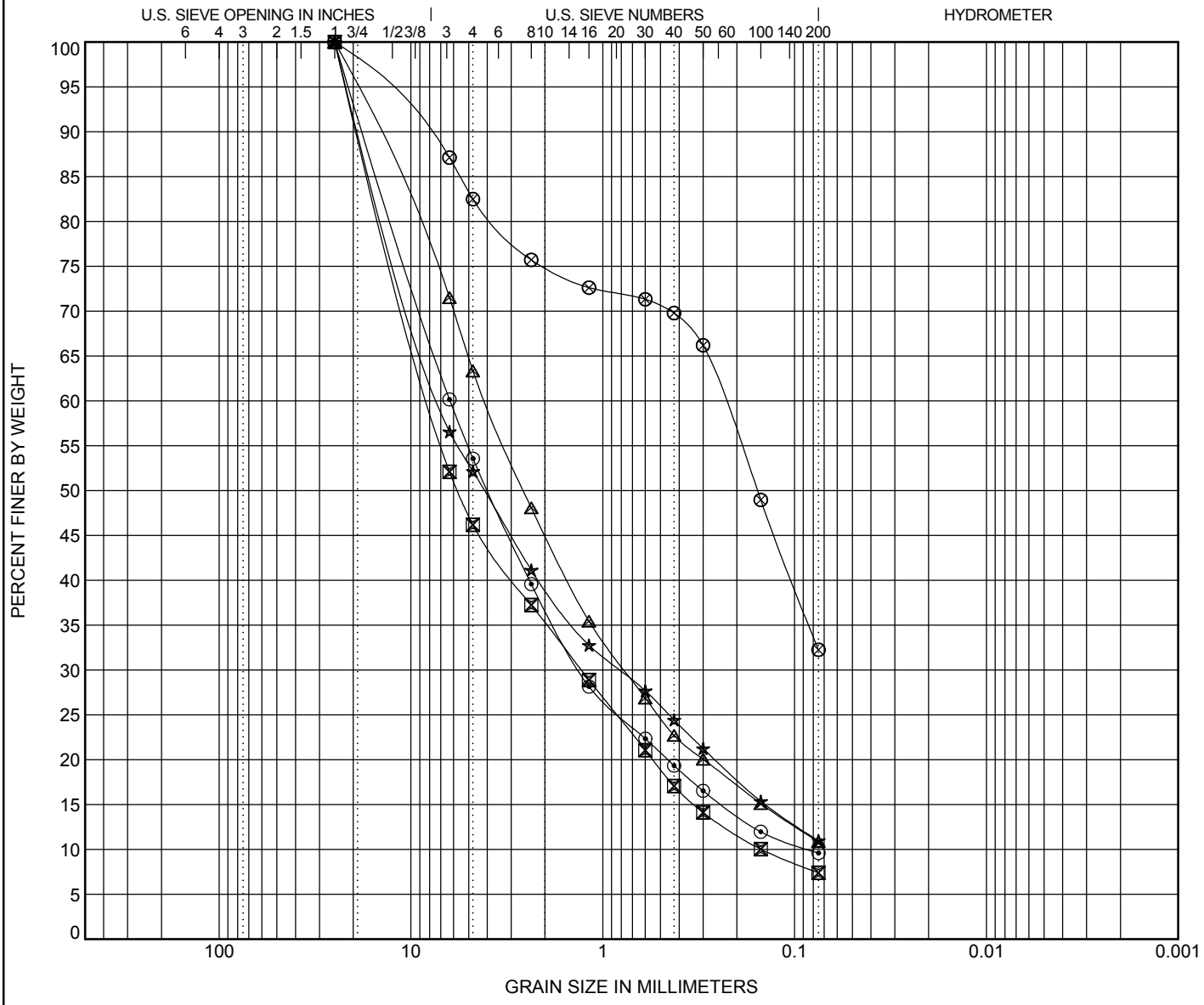
GRAIN SIZE DISTRIBUTION

GEO-ENGINEERING SOLUTIONS, INC.
A PE COMPANY
Geotechnical Engineering • Engineering Geology • Materials Testing

2570 San Ramon Valley Blvd, Suite A102
San Ramon, CA 94583
Telephone: 925433450

CLIENT Jemcor Development Partners **PROJECT NAME** Residential Development - 18960 Monterey Road

PROJECT NUMBER 79-1251 **PROJECT LOCATION** 18960 Monterey Road, Morgan Hill, CA



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification			Classification	LL	PL	PI	Cc	Cu
⊗	B-2	Depth: 4.5'	**S l y SA (S)**					
⊠	B-2	Depth: 9.5'	**Well Graded Sandy GRAVEL (GW)**				1.42	53.13
△	B-2	Depth: 19.5'	**Well Graded Gra elly SA (SW)**				2.22	62.51
★	B-3	Depth: 3.0'	**Well Graded Sandy GRAVEL (GW)**				1.48	109.40
⊙	B-3	Depth: 9.5'	**rly Graded Sandy GRAVEL (G)**				3.30	74.15

Specimen Identification			D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
⊗	B-2	Depth: 4.5'	25	0.234			17.5	50.2	32.2	
⊠	B-2	Depth: 9.5'	25	7.91	1.295	0.149	53.8	38.8	7.4	
△	B-2	Depth: 19.5'	25	4.076	0.768		36.7	52.5	10.9	
★	B-3	Depth: 3.0'	25	7.024	0.816		47.9	41.2	11.0	
⊙	B-3	Depth: 9.5'	25	6.258	1.32	0.084	46.4	44.0	9.6	

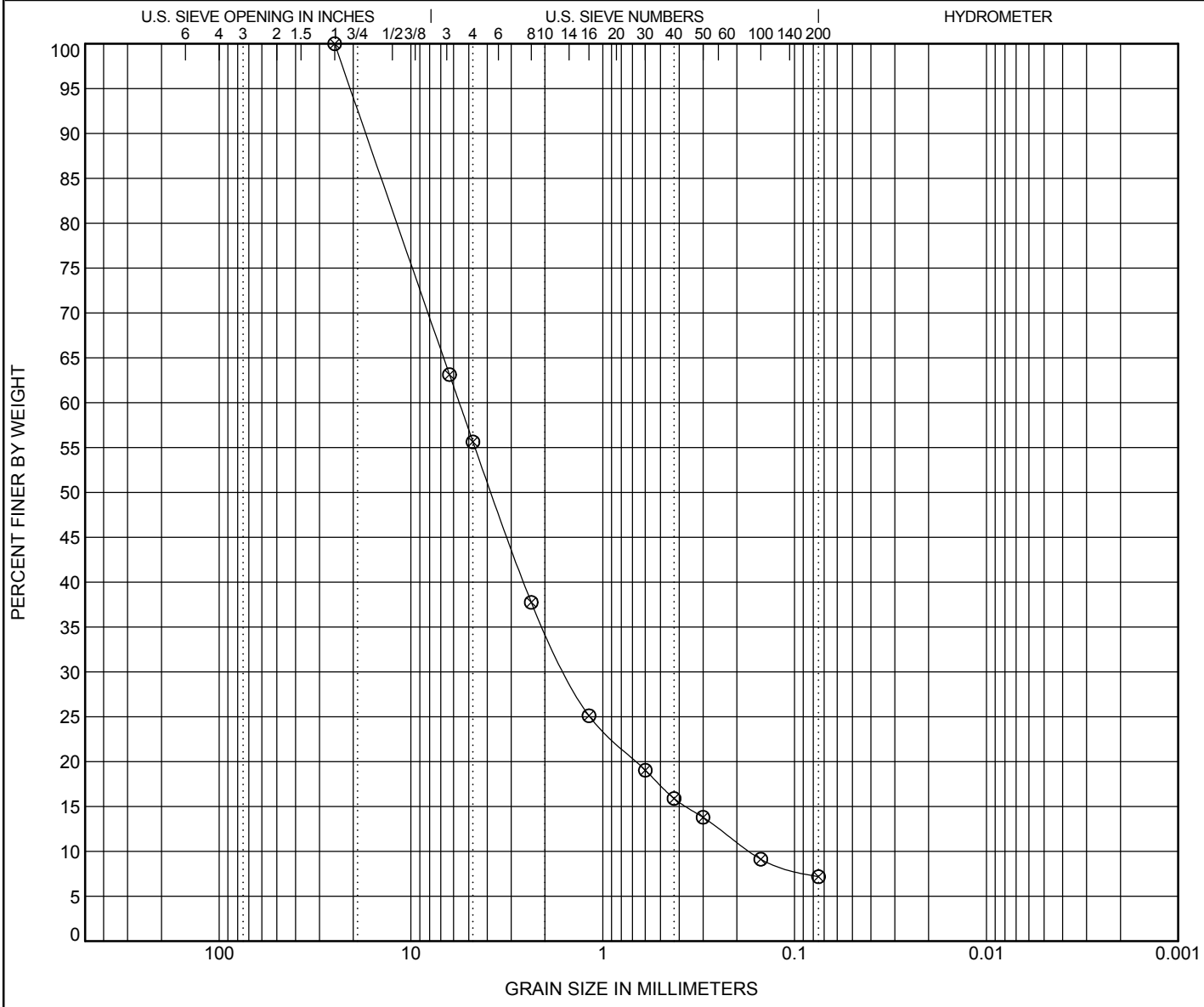
GRAIN SIZE DISTRIBUTION

GEO-ENGINEERING SOLUTIONS, INC.
A PB COMPANY
Geotechnical Engineering • Engineering Geology • Materials Testing

2570 San Ramon Valley Blvd, Suite A102
San Ramon, CA 94583
Telephone: 925433450

CLIENT Jemcor Development Partners **PROJECT NAME** Residential Development - 18960 Monterey Road

PROJECT NUMBER 79-1251 **PROJECT LOCATION** 18960 Monterey Road, Morgan Hill, CA



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	LL	PL	PI	Cc	Cu
⊗ **B-3 Depth: 29.5'**	**Well Graded Gra elly SA (SW)**				**2.49**	**32.79**

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
⊗ **B-3 Depth: 29.5'**	**25**	**5.601**	**1.543**	**0.171**	**44.4**	**48.4**	**7.2**	

Corrosivity Tests Summary

CTL # 1003-110 **Date:** 7/21/2020 **Tested By:** PJ **Checked:** PJ

Client: Geo Engineering Solutions **Project:** Monterey Road **Proj. No:** 1251

Remarks:

Sample Location or ID			Resistivity @ 15.5 °C (Ohm-cm)			Chloride	Sulfate		pH	ORP (Redox)		Sulfide Qualitative by Lead Acetate Paper	Moisture At Test % ASTM D2216	Soil Visual Description
			As Rec.	Min	Sat.	mg/kg Dry Wt.	mg/kg Dry Wt.	% Dry Wt.		E_H (mv) ASTM G200	At Test Temp °C			
Boring	Sample, No.	Depth, ft.	ASTM G57	Cal 643	ASTM G57	ASTM D4327	ASTM D4327	ASTM D4327	ASTM G51					
B2	1	4	-	-	6,788	4	288	0.0288	5.8	501	23	Negative	9.2	Yellowish Brown Sandy CLAY

APPENDIX C

PREVIOUS FIELD EXPLORATION (GeoSolve)

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-1
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 33 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B1-0.5 B1-1	0			Gray brown, sandy GRAVEL , dry (FILL) Brown, silty medium SAND (SM), no odor, damp	
			B1-5	5		SM		
			B1-10	10			increase clay at 10 feet	
							Dark brown, clayey GRAVEL with sand (GW), no odor, moist	
				15		GW		
							Dark brown, sandy GRAVEL with clay (GW), no odor, moist	
				20		GW		

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-1
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 33 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20			Dark brown, sandy GRAVEL with clay (GW), no odor, moist	
				25		GW		
				30		SM	Brown, fine sandy SILT (SM), no odor, very moist	
				35			Boring was terminated at 33 feet below ground surface (bgs). Groundwater was not encountered.	
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-2
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA
Depth to Water (Static): NA

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B2-0.5 B2-1	0			(FILL) Gray brown, sandy GRAVEL with brick fragments	
			B2-5	5		FILL	mottled black at 5 feet	
			B2-10	10				
				15		FILL	Black brown, clayey GRAVEL, odor, damp (FILL)	
				20		GW	increased gravel at 19 feet Brown to gray, clayey GRAVEL with sand (GW), no odor, moist	

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-2
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GW	Brown to gray, clayey GRAVEL with sand (GW), no odor, moist	
				25			Gray brown, gravelly coarse SAND (SW), no odor, wet	
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-3
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B3-0.5 B3-1	0		FILL	Gray, GRAVEL with medium sand (FILL)	
							Brown, clayey SAND (SC), no odor, damp	
						SC		
			B3-5	5				
							Gray brown, clayey GRAVEL with sand (GW), no odor, moist	
			B3-10	10		GW		
				15		FILL		
				20		GW	Dark gray brown, sandy GRAVEL with CLAY (GW), no odor, moist	

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-3
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GW	Dark gray brown, sandy GRAVEL with CLAY (GW), no odor, moist	
				25				
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-4
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B4-0.5 B4-1	0		SW	Brown, gravelly SAND with clay (SW), no odor, dry	
						SW	Brown, gravelly coarse SAND (SW), no odor, damp	
			B4-5	5				
						SW	Dark brown, coarse sandy GRAVEL (SW), no odor, moist	
			B4-10	10				
						SP-GW	Dark brown, coarse SAND with gravel (SP-GW), no odor, moist	
				15		SW	Dark brown, gravelly coarse SAND with clay (SW), no odor, moist	
						GW	Brown, clayey GRAVEL with sand (GW), no odor, moist	
				20				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-4
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GW	Brown, clayey GRAVEL with sand (GW), no odor, moist	
				25			pockets of water at 25 feet to 28 feet	
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-5
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B5-0.5 B5-1	0		SP	Brown, coarse SAND with gravel (SP), no odor, dry	
							Dark brown, sandy GRAVEL with clay (GW), no odor, damp	
			B5-5	5		GW		
							grades to more clay at 9 feet	
			B5-10	10				
				15			Gray to brown, clayey GRAVEL with sand (SW), no odor, moist	
						SW		
				20				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-5
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GW	Gray to brown, clayey GRAVEL with sand (SW), no odor, moist	
							Brown, silty CLAY (CL), no odor, moist	
				25		CL		
							Brown to gray, clayey GRAVEL sand, no odor, moist	
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-6
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA
Depth to Water (Static): NA

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B6-0.5 B6-1	0		SP	Brown, medium SAND with gravel (SP), no odor, dry	
			B6-5	5		GW	Dark brown, clayey GRAVEL with sand (GW), no odor, damp carbonized root at 9 feet	
			B6-10	10				
				15		GW	Dark brown, sandy GRAVEL with silt (GW), no odor, moist	
						GP-GC	Brown, GRAVEL with clay (GP-GC), no odor, moist	
				20				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-6
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GP-GC	Brown, GRAVEL with clay (GP-GC), no odor, moist	
							Brown, clayey SAND with gravel (SC), no odor, very moist	
						SC		
							Dark brown, coarse sandy GRAVEL with clay (GW), pockets of water, no odor, very moist	
				25		GW		
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-7
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B7-0.5 B7-1	0		SP	Brown, medium SAND with silt (SP), no odor, dry	
							Dark brown, silty GRAVEL with sand (GW), no odor, damp	
			B7-5	5		GW		
			B7-10	10			Dark brown, clayey GRAVEL with sand (GW), no odor, moist	
							Dark brown, sandy GRAVEL with silt (GW), no odor, moist	
				15		GW		
							Light brown, fine sandy SILT (ML), no odor, moist	
						ML		
				20				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-7
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		ML	Light brown, fine sandy SILT (ML), no odor, moist	
				25		GW	Dark brown, clayey GRAVEL with sand (GW), no odor, very moist	
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-8
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B8-0.5 B8-1	0		GW	Brown, fine sandy GRAVEL with clay (GW), no odor, dry	
							Dark brown, clayey GRAVEL with sand (GW), no odor, damp	
			B8-5	5		GW		
			B8-10	10			Brown, coarse sand GRAVEL (GP-GW), no odor, moist	
				15		GP-GW		
							Brown, silty CLAY (CL), no odor, moist	
				20		CL		

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-8
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		CL	Brown, silty CLAY (CL), no odor, moist	
				25		GW	Brown, sandy GRAVEL with clay (GW), no odor, moist	
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-9
Drilling Started: 05-08-2020
Drilling Completed: 05-08-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B9-0.5 B9-1	0		SW	Brown, clayey GRAVEL with sand (SW), no odor, dry	
			B9-5	5				
							Brown gray, sandy GRAVEL with clay (GW), no odor, damp	
			B9-10	10		GW		
				15				
							Olive to gray, clayey GRAVEL (GC), no odor, moist	
				20		GC		

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-9
Drilling Started: 05-08-2020
Drilling Completed: 05-08-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GC	Olive to gray, clayey GRAVEL (GC), no odor, moist	
				25			increasing sand at 26 feet	
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-10
Drilling Started: 05-08-2020
Drilling Completed: 05-08-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B10-0.5 B10-1	0		SW	Brown, gravelly SAND with clay (SW), no odor, moist	
							Brown sandy GRAVEL with clay (GW), no odor, damp	
			B10-5	5				
			B10-10	10			Brown gray, sandy GRAVEL with clay (GW), no odor, damp	
				15		GW		
							Brown, clayey GRAVEL with sand (GW), no odor, moist	
				20		GW		

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-10
Drilling Started: 05-08-2020
Drilling Completed: 05-08-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GW	Brown, clayey GRAVEL with sand (GW), no odor, moist	
				25				
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-11
Drilling Started: 05-08-2020
Drilling Completed: 05-08-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA
Depth to Water (Static): NA

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B11-0.5 B11-1	0		SP	Brown, fine SAND with silt (SP), no odor, damp	
							Gray, sandy SILT (ML), no odor, damp	
			B11-5	5		ML		
							Gray brown, clayey GRAVEL with coarse sand (GW), no odor, moist	
			B11-10	10		GW		
				15				
							Brown, coarse sandy GRAVEL with clay (GW), no odor, moist	
				20		GW		

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-11
Drilling Started: 05-08-2020
Drilling Completed: 05-08-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GW	Brown, coarse sandy GRAVEL with clay (GW), no odor, moist	
				25		GC	Gray brown, clayey GRAVEL (GC), no odor, moist more moisture at 28 feet	
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-12
Drilling Started: 05-08-2020
Drilling Completed: 05-08-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B12-0.5 B12-1	0		SP	Brown, medium SAND (SP) with clay, no odor, dry	
							Dark brown, clayey GRAVEL with sand (GW), no odor, damp	
			B12-5	5		GW		
			B12-10	10				
							Brown gray, fine sandy GRAVEL (GW), no odor, moist	
				15		GW		
				20				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-11
Drilling Started: 05-08-2020
Drilling Completed: 05-08-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GW	Brown, coarse sandy GRAVEL with clay (GW), no odor, moist	
							Brown, silty CLAY (CL), no odor, moist	
				25				
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-13
Drilling Started: 06-06-2020
Drilling Completed: 06-06-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 44 feet
Depth to Water (First Encounter): 42 feet ▽
Depth to Water (Static): 40 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				0		ML	Brown, fine sandy SILT (ML), no odor, dry	
				5		SP	Light brown, fine SAND (SP), no odor, dry	
				10		CL	Brown, silty CLAY with fine sand (CL), no odor, damp	
				15		GW	Brown, clayey GRAVEL with sand (GW), no odor, damp grades less clay at 18 feet	
				20		GW	Brown, fine to coarse sandy GRAVEL with clay (GW), no odor, moist	

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-13
Drilling Started: 06-06-2020
Drilling Completed: 06-06-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 44 feet
Depth to Water (First Encounter): 42 feet ▽
Depth to Water (Static): 40 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GW	Brown, fine to coarse sandy GRAVEL with clay (GW), no odor, moist	
				25				
				30				
				35		CL	Brown, silty CLAY (CL), no odor, moist	
				40	▼	GW	Brown, coarse sandy GRAVEL with clay (GW), no odor, moist	

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-13
Drilling Started: 06-06-2020
Drilling Completed: 06-06-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 44 feet
Depth to Water (First Encounter): 42 feet ▽
Depth to Water (Static): 40 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				40	▽	SM	Light brown, silty SAND (SM), no odor,wet	
				45			Boring was terminated at 44 feet below ground surface (bgs). Groundwater was encountered at 42 feet and stabilized at 40 feet after 20 minutes.	
				50				
				55				
				60				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-14
Drilling Started: 06-06-2020
Drilling Completed: 06-06-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 42 feet
Depth to Water (First Encounter): 39 feet ▽
Depth to Water (Static): 36 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				0		ML	Brown, fine sandy SILT (ML), no odor, dry	
						SP	Light brown, fine SAND (SP) with silt, no odor, dry	
				5		CL	Brown, silty CLAY (CL), no odor, damp	
				10		GW	Brown, clayey GRAVEL with sand (GW), no odor, damp	
				15			grades less clay at 17 feet	
						GW	Brown, fine to coarse sandy GRAVEL with clay (GW), no odor, moist	
				20				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-14
Drilling Started: 06-06-2020
Drilling Completed: 06-06-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 42 feet
Depth to Water (First Encounter): 39 feet ▽
Depth to Water (Static): 36 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20			Brown, fine to coarse sandy GRAVEL with clay (GW), no odor, moist	
				25		GW		
				30				
							Brown, silty CLAY (CL), no odor, moist	
				35	▼	CL		
							Brown, coarse sandy GRAVEL (GW-GP), no odor, very moist	
						GW		
							Light brown, silty SAND (SM), no odor, wet	
				40		SM		

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-14
Drilling Started: 06-06-2020
Drilling Completed: 06-06-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 42 feet
Depth to Water (First Encounter): 39 feet ▽
Depth to Water (Static): 36 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				40	▽	SM	Light brown, silty SAND (SM), no odor,wet	
							Boring was terminated at 42 feet below ground surface (bgs). Groundwater was encountered at 39 feet and stabilized at 36 feet after 20 minutes.	
				45				
				50				
				55				
				60				

Appendix D

Phase I and Limited Phase II Environmental Site Assessment

PHASE I ENVIRONMENTAL SITE ASSESSMENT AND
LINMITED PHASE II SOIL SCREENING
MONTERY ROAD DEVELOPMENT
18960 MONTEREY ROAD
MORGAN HILL, CALIFORNIA

March 26, 2020

Prepared for:

JEMCOR Development Partners
1700 S. El Camino Real, Suite 400
San Mateo, CA 94402

Prepared by:

Earth Systems Pacific
500 Park Center Drive, Suite 1
Hollister, CA 95023

Copyright © 2020

Earth Systems
500 Park Center Drive, Suite 1 | Hollister, CA 95023 | Ph: 831.637.2133 | www.earthsystems.com

March 26, 2020 File No.: 303754-001

Mr. Jonathan Emami
JEMCOR Development Partners
1700 S El Camino Real, Suite 400
San Mateo, CA 94402

PROJECT: MONTEREY ROAD DEVLEOPMENT
18960 MONTEREY ROAD
MORGAN HILL, CALIFORNIA

SUBJECT: Report of Phase I Environmental Site Assessment and Limited Phase II Soil Screening

REF.: Proposal for a Phase I Environmental Site Assessment and Limited Phase II Soil Screening, 18960 Monterey Road, Morgan Hill, California, Doc. No. 2002-010.PRP, dated February 11, 2020

Dear Mr. Emami:

As authorized by Mr. Jonathan Emami of JEMCO Development Partners, Earth Systems Pacific (ESP) has completed this Phase I Environmental Site Assessment (ESA) and Limited Phase II Soil Screening at the above-referenced site. It was prepared to stand as a whole, and no part should be excerpted or used in exclusion of any other part. This project was conducted in accordance with our proposal dated February 11, 2020. If you have any questions regarding this report or the information contained herein, please contact the undersigned at your convenience.

I declare that I meet the definition of an Environmental Professional as defined in 40CFR 312.10. I have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject site. I have endeavored to perform this project in conformance with the standards and practices set forth in ASTM Standard E1527-13.

Sincerely,

Earth Systems Pacific



Brett Faust
Senior Geologist

Doc. No.: 2003-043.RPT/ev

TABLE OF CONTENTS

EXECUTIVE SUMMARY 2

Recognized Environmental Conditions 3

1.0 INTRODUCTION 3
Project Information 3
Purpose and Scope of Work 3
Definitions 5
Qualifications 6
Exclusions and Data Gaps 6
Limitation and Reliance 6

2.0 GENERAL SITE INFORMATION 7
Size and Location 7
Assessor's Parcel Number 8
Site Boundaries 8
Current Development and Access 8
Land Use/Zoning 8
Site Topography 8
Surface Water Bodies 8
Geology and Hydrogeology 9

3.0 SITE RECONNAISSANCE 9
Site Observations 9
Site Vicinity Observations 10

4.0 HISTORICAL INFORMATION 10
Sanborn Fire Insurance Maps 10
Aerial Photographs 10
Historic Topographic Maps 10
City Directory Listings 10

5.0 RECORDS REVIEW 12
Agency Database Search Report 12
California Department of Toxic Substances Control 14
Tribal Records 14
Engineering and Institutional Controls 14
Environmental Cleanup Liens 14
Oil and Gas Maps 14
Building Permits 10

6.0 INTERVIEWS AND GENERAL RESEARCH 15
Current Owners/Occupants/Operators 15
Past Owners/Occupants/Operators 15
Local Agency Records 15

7.0 LIMITED PHASE II SOIL SCREENING 15
Laboratory Results 10
Discussion 10

TABLE OF CONTENTS
(Continued)

8.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS 17
Recognized Environmental Conditions 10
Recommendations 10

REFERENCES 19

APPENDICES

APPENDIX A
Figures

APPENDIX B
Photographs

APPENDIX C
Aerial Photographs

APPENDIX D
Topographic Maps

APPENDIX E
Agency Database Search Report

APPENDIX F
Lien and Activity Use Limitation Search Report

APPENDIX G
McCampbell Analytical Laboratory Report

APPENDIX H
Qualifications Statement

EXECUTIVE SUMMARY

This report presents the findings of the Phase I ESA and Limited Phase II Soil Screening conducted for the property located at 18960 Monterey Road in Morgan Hill, California. We understand that the requested ESA is in connection with redeveloping the property for residential use. We have endeavored to perform this ESA in general conformance with the scope and limitations of the ASTM Standard E1527-13. Exceptions to or deviations from this scope are described in Section 1.0 of this report. The purpose of this assessment was to evaluate the site for the presence of Recognized Environmental Conditions (RECs) related to the current or past use, handling, storage, or disposal of hazardous materials or petroleum products on or near the subject property. This assessment has identified the following information:

- The site was operated as a winery between at least 1939 and 1963, and as an automobile salvage yard and moving van rental business since that time.

- The site is listed in regulatory agency databases in connection with handling, storing, and recycling/disposing of hazardous substance related to automobiles, and a minor communication facility at the site. None of the listings indicate that a documented release of hazardous substances has occurred at the site. Additionally, because of the type of listing, status, and/or distance from the subject site, none of the nearby listed sites appear to pose an environmental risk to the subject site.

- Conditions on adjacent properties observed during the site reconnaissance are not likely to adversely affect the subject property.

- There are no environmental liens or activity use limitations recorded for the property.

- Limited Phase II soil screening revealed the presence of elevated levels of lead, nickel, and chromium distributed at the site, and locally present elevated levels of diesel and motor oil in shallow soil at the site. While results of the limited soil screening did not reveal the presence of hazardous levels of metals, many of the lead, nickel, and chromium levels are well above ESL thresholds for direct human contact, and the potential exists that higher levels could be present on the

Recognized Environmental Conditions

Based on the work for this Phase I Environmental Site Assessment and Limited Phase II Soil Screening, recognized environmental conditions (RECs) are present at the site consisting of elevated levels of metals and petroleum hydrocarbons in shallow soil at the site.

1.0 INTRODUCTION

Project Information

This report presents the findings of a Phase I Environmental Site Assessment (ESA) and limited Phase II soil screening conducted by Earth Systems Pacific (ESP) for the parcel located at 18960 Monterey Road in Morgan Hill, California. The site encompasses about 14.8-acres and identified as Santa Clara County Assessor Parcel Number (APN) 726-36-059. The site is occupied by two buildings and used as an automobile salvage and moving van rental company (see Vicinity Map and Site and Sample Location Map in Appendix A). This project was conducted for JEMCOR Development Partners in accordance with our proposal dated February 11, 2020. The work was performed for due diligence purposes in connection with planned residential development at the site.

Purpose and Scope of Work

The purpose of an ESA is to evaluate the potential for soil or groundwater contamination at a site due to the possible past use, storage, or handling of hazardous materials or petroleum products on or near the site, based on a visit to the site and a review of readily obtainable information concerning site activities and conditions. The scope of work is based on United States Environmental Protection Agency Final All Appropriate Inquiry Rule (2006) [US EPA AAI] and ASTM Standard E-1527-13, Standard Practice for Environmental Site Assessments, and consisted of the tasks listed below. A search for environmental liens on the site was also performed.

Site Reconnaissance: This involved: a visual reconnaissance of the site, noting physical evidence of potential contamination or possible sources of contamination; and observation of adjacent properties to identify readily observable visual evidence of possible impacts to the subject site. Site conditions are shown on a Site and Sample Location Map in Appendix A. Significant on-site features were photographed to document current conditions. Selected site photographs are presented in Appendix B.

Records Review: Records regarding the regulatory status and history of the site were evaluated regarding the possible presence of Recognized Environmental Conditions (RECs). Regulatory agency records were reviewed by obtaining a report listing known sites that generate, store, use, and/or have released hazardous materials from a firm that specializes in maintaining a database of this type of information. A copy of the agency database search report is presented in Appendix E and is discussed in Section 5.0. The search radii for the agency database search were in general accordance with the US EPA AAI and ASTM E1527-13, as measured from the site perimeter.

Other sources of information are listed in the references section of this report and may include the following categories of information (note that each category is utilized at the discretion of EP until, in the EP's opinion, sufficient data has been obtained):

- Aerial photographs
- Topographic maps
- Oil and gas production maps and records.
- Fire insurance maps
- Land title information
- Local street directories
- Zoning/land use records
- Interviews with current and/or former owners, occupants, and operators
- Engineering and institutional controls, such as deed restrictions and restrictive zoning to a radius of ½ mile, if contained in publicly available lists/registries
- Tribal records of subject property and adjoining properties (if tribal land)
- Local government records such as building department files

Interviews: Persons familiar with the site were interviewed (if possible) regarding the potential presence of RECs on the site or in a position to affect the site, including the site owner/operator/occupant, former site owners/operators/occupants (if reasonably accessible), neighboring property occupants (if the site is abandoned), and selected government personnel likely to have information regarding environmental conditions at or near the site. Information from persons who were contacted is presented in Section 6.0.

Report Preparation: This report was prepared to present our findings, conclusions, and recommendations.

Definitions

ASTM E1527-13 provides definitions of various terms and acronyms used in the ESA process. ESP endeavors to use these terms and acronyms within the meaning provided by the ASTM standard. The majority of these terms are either obvious in their meaning or are seldom used in this report, but a few are significant enough to warrant defining here, as follows:

Site: The term "site" is used in place of the term "property," and is the physical location that is the subject of the assessment. The site can include more than one parcel of land, or a portion of a parcel of land, depending on the needs of the client. ESAs focus primarily on activities that occur within the boundaries of the site, or that could potentially affect conditions and activities within the boundaries of the site. RECs on off-site properties that are not likely to affect the site are not considered to be RECs for the subject site.

Recognized Environmental Condition (REC): the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to a release to 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. The term does not include *de minimis* conditions.

Controlled Recognized Environmental Condition (CREC): An 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 projects allowed to remain in place subject to the implementation of required controls.

Historic Recognized Environmental Condition (HREC): A past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the regulatory authority, or meeting unrestricted land use criteria, without subjecting the property to any required controls (such as a deed restriction). HRECs are no longer RECs for a site.

De Minimis Condition: A condition that does not present a significant threat to human health or the environment, and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

Environmental Professional (EP): An EP is defined as "a person who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding conditions indicative of releases or threatened releases (of hazardous substances) on, at, in, or to a property, sufficient to meet the objectives and performance factors (of the rule)." Specific minimum credentials are required to be identified as an EP.

User: The "user" of the report is defined as the party for whom the assessment is being conducted (i.e., the Client).

Qualifications

Work on this project was performed under the direct supervision of an EP, in accordance with ASTM E1527-13 requirements. Brett Faust (PG, CEG) was the lead EP and project manager and conducted the site reconnaissance, historical research, agency database review, and report preparation. Qualifications statements are presented in Appendix H.

Exclusions and Data Gaps

The scope of work for this ESA did not include testing air, groundwater, or building materials for the presence of hazardous constituents.

ASTM E1527-13 requires that gaps in the data used to evaluate the site be identified. Data gaps encountered in this project, and their significance to the project, are summarized below.

- Chain-of-title information was not reviewed.
- Santa Clara County Hazardous Materials Compliance Division files for the site, if any, were not reviewed because of COVID-19 related closures.

Because of the availability of other data sources, the absence of these items is not considered to be significant data gaps, and in our opinion, further assessment regarding these data gaps is not warranted.

Limitation and Reliance

This ESA has been prepared for the exclusive use of JEMCOR Development Partners for the

subject site. Any other use of, or reliance on the information and opinions contained in this report without the express written authorization of ESP is at the sole risk of the user.

The conclusions and recommendations rendered in this report are based on readily available information obtained to date within the scope of the work authorized by the client, and apply only to site conditions as of the date of the site visit. The scope of work for this project was developed to address the needs of the client related to property acquisition and planned residential development at the site.

A Phase I ESA cannot ascertain that a property is completely free of chemical or toxic substances. We believe the scope of work has been appropriate to allow the client to make an informed business decision. According to ASTM E1527-13, the "shelf life" of an ESA report is six months; an update can be provided to the client within the first year of the report's publication. Changes in site conditions/use could render this report obsolete within a shorter period of time. Use of this report outside of these time frames or after site conditions/uses have changed is at the sole risk of the user.

The results contained in this report are based upon the information acquired during the assessment, including information obtained from third parties. ESP makes no warranty as to the accuracy of the information obtained from others. In addition, it is possible that variations exist beyond or between points evaluated during this assessment, and that changes in conditions could occur due to the works of man, contaminant migration, variations in rainfall or temperature, changes in regulatory standards, or other circumstances not existent at the time the assessment was prepared.

The services performed by ESP have been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the site vicinity. No other warranty, express or implied, is offered.

2.0 GENERAL SITE INFORMATION

Size and Location

The site is located northeast of Monterey Road and Madrone Parkway at 18960 Monterey Road in Morgan Hill, California. The site consists of an approximate 14.8-acre parcel.

Assessor's Parcel Number

The site is identified as Santa Clara County Assessor's Parcel Number 726-36-059.

Site Boundaries

The property is bounded Monterey Road and residences on the southwest, Madrone Parkway on the southeast, Taylor Avenue on the northeast, and vacant and residential properties on the northwest.

Current Development and Access

The site is accessed from Monterey Road and Madrone Parkway and currently used as an automobile salvage yard and moving van rental business. The automobile salvage yard is occupied by an older warehouse building and the van rental business is operated out of a single story residential-style building. Concrete pavement is present on the southwest section of the property. Site electrical and natural gas services are provided by Pacific Gas and Electric. The site is served by municipal water supply and disposal.

Land Use/Zoning

Land use/zoning information was obtained from the City of Morgan Hill General Plan Land Use Map. The southwest section of the site is zoned for mixed use and the remainder is zoned general commercial.

Site Topography

The site is situated on the floor of Santa Clara Valley on the distal portions of an alluvial fan that originates at the base of the Diablo Mountain Range to the east. The site is relatively flat-lying an elevation of about 350 feet.

Surface Water Bodies

No natural surface water bodies are located on the property. The alluvial fan underlying the site forms a surface and groundwater divide in Santa Clara Valley. Coyote Creek flows out of Leroy Anderson Reservoir located about 2.2 miles east-northeast at the base of the Diablo Mountain Range. At its nearest point, Coyote Creek is located about 1-mile to the northeast. A seasonal drainage that flows southward is present about 1,000 feet to the southwest. Based on Environmental Data Resources' (EDR) Radius Map Report with GeoCheck (Appendix E), the site

lies in a 0.2-percent annual flood hazard zone. However, according to Santa Clara Valley Water District inundation maps (April 2016) the site lies within both fair weather and inflow design inundation zones associated with Leroy Anderson Reservoir.

Geology and Hydrogeology

Based on geologic mapping of the Morgan Hill area by Pacific Geotechnical Engineering (1991), the site is underlain by older alluvial fan deposits described as poorly to well consolidated deposits of gravel, sand, silt, and clay. The site lies outside of State and County recognized fault rupture, landslide, and liquefaction hazard zones.

Based on Environmental Data Resources Radius Map report (see Appendix E) soils at the site consist of two U.S. Department of Agriculture soil classes (Map ID):

- Soil Map ID 1: Cortina [Very Gravely Loam] (Class A) – somewhat excessively drained with a low corrosion potential.
- Soil Map ID 2: Pleasanton [Loam] (Class B) – Well drained with moderate corrosion potential.

Site specific hydrogeologic data was not available to Environmental Data Resources (EDR) Radius Map report (see Appendix E). According to Santa Clara Valley Water District GIS data accessed March 2020, depth to first groundwater at the site is typically 10 to 20 feet. EDR's report shows a water well on the eastern portion of the site operated by the City of Morgan Hill. We did not observe evidence of a well on the site during our reconnaissance. Furthermore, according to the City of Morgan Hill Urban Water Management Plan (2015), the nearest City well is located about 1 mile southeast. As such, it is our opinion that the well was not accurately located in EDR's report.

3.0 SITE RECONNAISSANCE

Site Observations

Earth Systems Pacific personnel visited the site on March 4, 2020 to evaluate current site conditions and adjacent land use accompanied by Mr. Bill Miner, owner. Photographs of the site are presented in Appendix B. A summary of our observations is presented below.

The site is in use as an automobile salvage yard and a moving van rental company. Considering site use as a salvage yard, it was well kept. A concrete pad used for draining automobile fluids and initial dismantling was present at the salvage yard entrance. The concrete appeared to be in fair condition and was stained. Additional concrete pavement in varying stages of deterioration was present on the southwestern section of the site and was related to previous use of the site as a winery. A parts warehouse was present at the entrance that was also well kept with localized minor staining of the concrete floor. There were no electrical transformers, sumps, or drains observed at the site.

Salvaged vehicles were organized in rows throughout the yard and a vehicle crusher was present at the east end of the yard. Minor amounts of localized soil staining were present in the area of the vehicles. Significant staining was present surrounding the crusher and leaked remnant vehicle fluids were adsorbed on soil spread in front of the crusher. The waste soil was placed in a truck-bed bin that Mr. Miner noted was regularly off-hauled by others. The crusher is hydraulically operated with an approximate 150-gallon hydraulic fluid tank on its north end.

The area of the van rental business was occupied by a small building and parking areas. There was no obvious surface staining in this area.

Site Vicinity Observations

Residences and vacant land were present in the site vicinity. There was no obvious evidence that that surrounding properties have impacted the subject site.

4.0 HISTORICAL INFORMATION

Information regarding the history of the site was obtained from various sources, as discussed below.

Sanborn Fire Insurance Maps

To evaluate past site uses, Sanborn Fire Insurance Company maps were requested from EDR. According to EDR, no Sanborn map coverage is available for this area of Morgan Hill.

Aerial Photographs

To assist in determining past uses that could have an environmental impact on the property,

historical aerial photographs were reviewed. The information below is a summary of the review of photographs of the site taken in 1939, 1940, 1948, 1950, 1956, 1963, 1968, 1970, 1974, 1982, 1998, 2006, 2009, 2012, and 2016. We also reviewed available Google Earth images dated between 1998 and 2018 showing the site and surrounding areas. Copies of the aerial photographs are attached as Appendix C.

1939,1940 – Monterey Road is present. The site is occupied by several warehouse-style buildings, residence, sheds, and barns concentrated on the central and south western portions of the site. These buildings appear to be related to former site use as a winery. The eastern portions of the site appear to be in use to grow vineyards and the northern portion appear to be fallow with a shed at the northwestern-most corner. A structure that appears to be a barn is present outside the southern site boundary. Elsewhere, the areas south and east of the site are in agricultural use and a rural residential area is present to the north.

1948,1950,1956 – There appear to be a row of upright tanks along the eastern end of the building areas and two upright tanks along the southern site boundary. It is presumed these tanks are used for producing wine. Elsewhere, the site and adjacent areas appear similar to the 1939 and 1940 photographs.

1963 – The site is in use as an automobile salvage yard. The warehouse buildings, residence, and most of the sheds remain. The upright tanks are absent. Salvage vehicles are concentrated on the central portions of the site. The eastern portion of the site is vacant and appears to be fallow.

1968,1970 (low resolution) – Two of the warehouse buildings, residence, and a shed remain on the central and southwest portions of the site. The area fronting Monterey Road appears vacant. Salvage vehicles are more numerous and are also present on the eastern portion of the site.

1974, 1982 – One of the warehouse buildings is absent revealing a multi chamber concrete vat used for wine making (see interview section of report). A small structure and parking lot are present fronting Monterey Road.

1998 – Taylor Avenue is present on the east. There are fewer salvage vehicles on the site and the automobile crusher is present at the eastern end of the site (see site reconnaissance section of report).

2006 – Madrone Parkway on the south is present. The residence and nearby shed are absent. With respect to structures, the site appears to be.

2009,2012,2016 – The number of salvage vehicles varies from year to year, but the site appears to similar to conditions observed during the site reconnaissance.

Google Earth Images – Available Google Earth images show site conditions similar to the photographs reviewed.

Historic Topographic Maps

Topographic maps published by the U.S. Geological Survey were reviewed to evaluate past land use on the site. The maps available for the Hollister area date from 1917-2012. The maps indicate a use history similar to that depicted in the aerial photographs. The topographic maps reviewed did not indicate land use at the site. Copies of the topographic maps reviewed are presented in Appendix D.

City Directory Listings

City directories, which contain telephone book listings alphanumerically by their street address, were also researched by EDR for information regarding past site use. The directories were reviewed dating from 1964 to 2014. Listings for site consisted of the following:

Address	Year	Listing
1110 Monterey Road	1964	California Salvage Auto Wreckers
18960 Monterey Road	1970, 1975, 1980, 1986, 1992, 1995, 2000, 2005, 2010, 2004	California Salvage and Auto Parts; California Towing

5.0 RECORDS REVIEW

Agency Database Search Report

A report summarizing the information available from regulatory agencies regarding sites that generate, store, use, and/or have released hazardous materials was prepared by Environmental

Data Resources (EDR). Search distances used for each list are in accordance with ASTM E1527-13 guidelines as measured from site boundaries. The address of the subject property is listed in several databases for storing and handling hazardous waste related to vehicle salvage and a communication facility at the site. There are ten facilities shown on EDR's radius map within 1/8 mile of the site. The orphan site is listed in EDR's report do not appear to be within one mile of the site.

Facilities of interest within 1/8 mile are listed below. A copy of the database summary report is included as Appendix E.

Facility	**Location**	**Database**	**Distance**
T-Mobile West	Target Property	CERS	Target Property
California Salvage and Auto Parts	Target Property	HAZNET, HWTS, FINDS ECHO, RCRA-NONGEN	Target Property
*M.M. Gomes and Son	18920 Monterey Road	HIST UST, SWEEPS UST, CA FID UST	150 feet South
*TBI – Mission West	18922 Monterey Road	HWTS	150 feet South
Paramit Corporation	18735 Madrone Parkway	CUPA, NPDES, CIWQS, CERS HAZWASTE, HAZNET, RCRA SQG	96 feet SE
Elena Jimenez	19060 Rose Lane	HWTS	186 feet NW
ITT EXCELIS/ITT Reconn-aissance and Surveillance/ Harris Corporation	18705 Madrone Parkway	HAZNET, HWTS, CUPA, RCRA NONGEN	341 feet East
EDO Reconnaissance and Surveillance/Condor Sys.	18715 Madrone Parkway	HAZNET, HWTS	341 feet East
Ponzini's Community Garage	19190 Monterey Road	HAZNET, HWTS, CRS HAZ WASTE, CUPA	397 feet NW
Stephen Pena	19220 Monterey Road	HAZNET, HWTS	613 feet NW

*The location of this facility was inaccurately located adjacent to the subject site in EDR's report.

Based on the database listings above, all of these facilities store and handle hazardous materials and waste. None of the listings indicate that a release of hazardous substances has occurred at the facilities.

California Department of Toxic Substances Control

The California Department of Toxic Substances Control (DTSC) *Envirostor* website was accessed to research records on file regarding known problems at or adjacent to the site. The subject site is not listed and there are no listings for adjacent facilities.

Tribal Records

This site is not located within 0.25 miles of tribal land, and therefore Tribal records for the subject property or adjoining properties were not reviewed.

Engineering and Institutional Controls

No Engineering or Institutional Controls (Waste Discharge Requirements, etc.) were identified for the site.

Environmental Cleanup Liens

Recorded Environmental Cleanup Liens (ECLs) on a property are indicators that contamination exists or existed at the site. ECLs are encumbrances on a property for the recovery of incurred cleanup costs on the part of a state, tribal, or federal government agency or other third party. Activity Use Limitations (AULs) are restrictions against particular use(s) recorded for a property or parts of a property, often in response to contamination being left in place after a cleanup. Based on EDR's search, there are no ECLs or AUL recorded against the property. A copy of the search report is presented in Appendix F.

Oil and Gas Maps

The California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR) online mapping service was reviewed for information regarding historic oil or gas well drilling activities on or near the site. According to the map, there are no active or historic oil or gas wells on or within one mile of the site.

Building Permits

Building permits issued for the subject site were researched by EDR. Permits were issued for installation of a mobile radio facility in 2001, demolition of a residence in 2000, and electrical work in 1990, 1991, and 2000.

6.0 INTERVIEWS AND GENERAL RESEARCH

Current Owners/Occupants/Operators

During our site reconnaissance on March 4, 2020, we interviewed property owner Mr. Bill Miner, owner/occupant/operator. Mr. Miner has been familiar with the property since about 1964 when it was purchased by his family and used as a winery. He stated that he was not aware of any environmental related violations at the site and that there are no fuel tanks, sumps, or floor/areas drains at the site. He also stated that the property is served by municipal water and sewage, and that Pacific Gas and Electric provides electric and natural gas services.

Mr. Miner stated that the salvage yard no longer purchases vehicles for salvage and that vehicles that are stored have been towed under direction of Morgan Hill Police Department. He also stated that all salvage vehicles were first drained of fluids in a concrete paved dismantling area at site entrance, and that the fluids were drummed and removed from the site by a recycling/disposal service. He also noted that soil has been used at the vehicle crusher to adsorb residual fluids, and that the soil is off-hauled for disposal.

Past Owners/Occupants/Operators

Contact information for past owner/occupants was not provided to Earth Systems and therefore no past owner/occupant interviews conducted.

Local Agency Records

We requested to review Santa Clara County Hazardous Materials Compliance Division files pertaining to the subject site. The files are not available due to COVID-19 related closures.

7.0 LIMITED PHASE II SOIL SCREENING

Because the site is currently in use as an automobile salvage yard, and to screen for possible use of organochlorine pesticide use at the site, shallow soils were screened for potential contaminants.

On March 4, 2020, Earth Systems personnel collected 17 discrete samples and 5 four-point composite samples at depths of between 0.5 feet and 1.0 feet in areas were soil was exposed at the site at the locations shown on a Site and Sample Location Map, Figure 2, in Appendix A. The samples were collected using hand operated sampling equipment that was decontaminated between sampling points. The samples were packaged in new stainless steel sleeves with the ends covered with Teflon sheeting and taped caps, and immediately placed in a field cooler for transfer to an analytical laboratory for testing.

The discrete samples were individually tested for total petroleum hydrocarbons as gasoline, diesel, and motor oil and CAM 17 metals, plus six samples collected near the vehicle crusher were additionally tested for PCBs and volatile organic compounds (VOCs). Samples adjacent to the crusher were taken at depths of 0.5 feet (DS-12A, -13A, and 14A) and 1.0 feet (DS-12B, -13B, and -14B). The composite samples were tested for organochlorine pesticides. All tests were performed using EPA Methods.

Laboratory Results

In general, elevated levels of lead and nickel, and in two cases chromium, were detected in the samples. Elevated levels of diesel and motor oil were detected in samples taken in the area of the crusher and a trace amount of the VOC 1,2,4 trimethylbenzene was detected in sample DS-12B at the crusher. No other VOCs nor PCBs were detected in the samples tested. Low concentrations of the pesticide DDT were detected in composite samples C1a,b,c,d and C2a,b,c,d. No other organochlorine pesticides were detected in the samples tested. A copy of the laboratory report and chain-of-custody documentation is included in Appendix G. The elevated detections exceeding Regional Water Quality Control Board Environmental Screening Levels-ESLs (2019, rev. 2) for direct human exposure in residential settings are shown on Site Plan, Figure 2, in Appendix A.

Discussion

The levels of detected analytes were compared California Regional Water Quality Control Board Environmental Screening Levels-ESLs (2019, rev. 2) for direct human exposure in residential settings. For nickel, the ESL threshold for construction work was referenced because it is more stringent. Levels of lead exceeding its ESL of 80 parts per million (ppm) was detected in nine of the samples, nickel exceeding its ESL of 86 ppm (construction worker) was detected in ten

samples, and chromium exceeding its ESL of 160 ppm (Tier 1 total) was detected in two samples. Levels of diesel and motor oil exceeding their respective ESLs of 260 ppm and 1,600 ppm were present in four samples collected at a depth of 0.5 feet and in one sample collected at a depth of 1 foot (DS-14B). Analytes with levels exceeding ESL thresholds are shown on the Site and Sample Location Map, Figure 2, in Appendix A.

In addition to the metals lead, nickel, and chromium, all the samples exceed the ESL threshold for arsenic. However, a study of background arsenic levels in the San Francisco Bay area (Duvergé, 2011) proposed an upper estimate of background concentration of 11 ppm. Based on this data, it is our opinion that the detected arsenic concentrations represent background levels in this area of California.

Based on results of testing, specifically in the area of the vehicle crusher, it appears that levels of elevated metals and petroleum hydrocarbons are generally present in the upper 1 to 2 feet of soil at the site. As such, cleanup actions, such as entering into a Voluntary Cleanup agreement with the California Department of Toxic Substances Control, should be considered for residential development at the site. Based the levels of lead detected at the site, it is uncertain if a landfill can be identified in California that would accept the impacted soil.

It should be noted that the concentration of metals is presented in terms of total threshold limit concentration (TTLC). Whereas TTLC metal concentrations in the samples tested are below California Title 22 hazardous waste thresholds, the potential exists that there is soil with metal, and in particular lead, concentrations exceeding Title 22 thresholds.

8.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This report presents the findings of the Phase I ESA and Limited Phase II Soil Screening conducted for the 14.8-acre property at 18960 Monterey Road in Morgan Hill, California (APN 726-36-059) in connection with proposed residential development at the site. We have endeavored to perform this ESA in general conformance with the scope and limitations of the ASTM Standard E1527-13. Exceptions to or deviations from this scope are described in Section 1.0 of this report. The purpose of this assessment was to evaluate the site for the presence of Recognized Environmental Conditions (RECs) related to the current or past use, handling, storage, or disposal of hazardous materials or petroleum products on or near the subject property. This assessment has identified the following information:

- The site was operated as a winery between at least 1939 and 1963, and as an automobile salvage yard since that time.

- The site is listed in regulatory agency databases in connection with handling, storing, and recycling/disposing of hazardous substance related to automobiles, and a minor communication facility at the site. None of the listings indicate that a documented release of hazardous substances has occurred at the site. Additionally, because of the type of listing, status, and/or distance from the subject site, none of the nearby listed sites appear to pose an environmental risk to the subject site.

- Conditions on adjacent properties observed during the site reconnaissance are not likely to adversely affect the subject property.

- Limited Phase II soil screening revealed the presence of elevated levels of lead, nickel, and chromium distributed at the site, and locally present elevated levels of diesel and motor oil in shallow soil at the site. While results of the limited soil screening did not reveal the presence of hazardous levels of metals, many of the lead, nickel, and chromium levels are well above ESL thresholds for direct human contact, and the potential exists that higher levels could be present on the site.

Recognized Environmental Conditions

Based on the work for this Phase I Environmental Site Assessment and Limited Phase II Soil Screening, recognized environmental conditions (RECs) are present at the site consisting of elevated levels of metals and petroleum hydrocarbons in shallow soil at the site.

Recommendations

It is recommended that additional soil sampling and analyses for metals, petroleum hydrocarbons, and volatile organic compounds be performed beneath concrete slabs, such as the dismantling area. It is also recommended that additional sampling and metal analyses be performed to evaluate horizontal and vertical extent of elevated levels of metal.

Additionally, the hydraulic fluid tank and its contents on the vehicle crusher should be disposed or recycled in a regulatory approved manner.

REFERENCES

American Society for Testing and Materials (ASTM) Standard E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessments.*

California Department of Conservation, Division of Oil, Gas and Geothermal Resources, *DOGGR Online Mapping Service (DOMS),* http://maps.conservation.ca.gov/doms/doms-app.html.

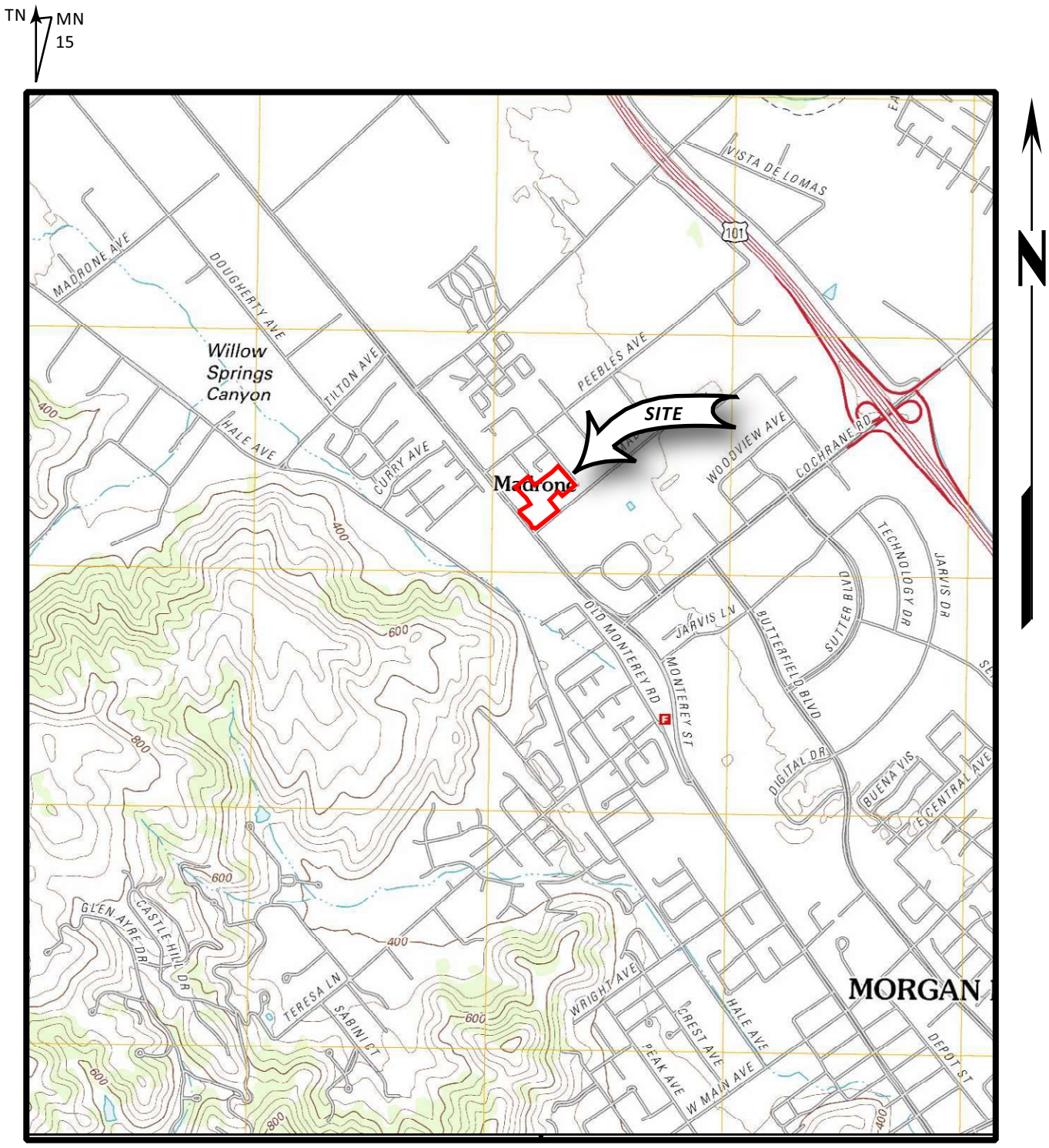
California Department of Toxic Substances Control, 2020, *EnviroStor website*, http://www.envirostor.dtsc.ca.gov/public/.

Pacific Geotechnical Engineering, 1991, Geologic Map Folio and Ground Movement Potential Maps for the City of Morgan Hill

Santa Clara Valley Water District, April 2016, Leroy Anderson Dam Inundation Maps.

APPENDIX A

FIGURES



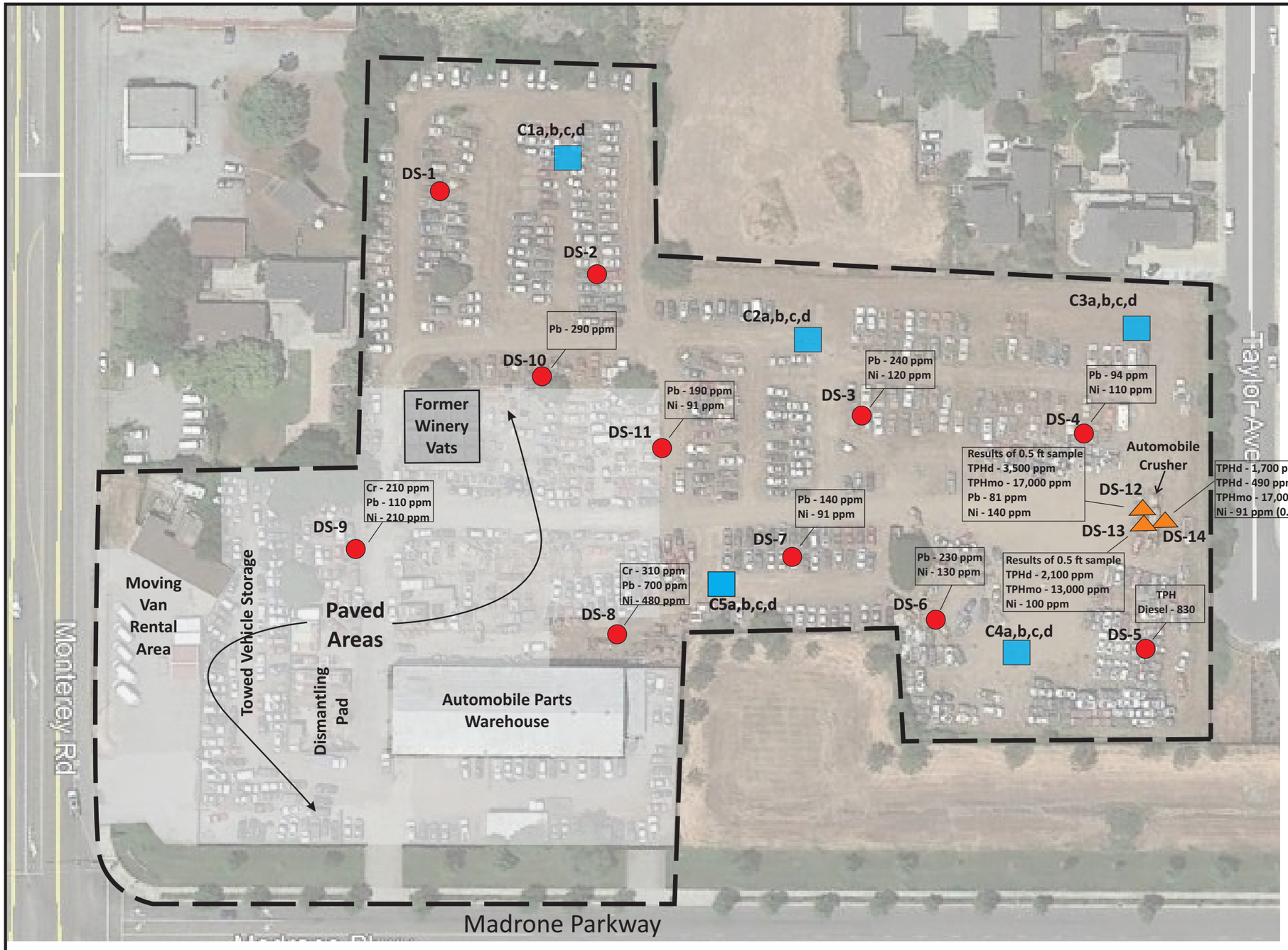
Approximate Scale 1: 24,000

1 0 1 Mile

1 0 1 Kilometer

Base: USGS Topograpohic Map of the Morgan Hill 7.5-minute quadrangle, 2012

Earth Systems Pacific	Monterey Road Development 18960 Monterey Road Morgan Hill, California	Vicinity Map 303754-001



Explanation

DS-11 — Discrete Sample at 0.5 feet with Analytes Exceeding ESL* (TPH and Metals)

C5a,b,c,d — Composite Sample at 0.5 feet (OC Pesticides)

DS-14 — Discrete Samples at 0.5 and 1.0 feet with Analytes Exceeding ESL* (TPH, VOCs, PCBs, and Metals)

* California Regional Water Quality Board Environmental Screening Level (ESL), Direct Human Exposure, 2019 Rev. 2

80 0 80 160

Approximate Scale in Feet

Base: Google Earth Image dated May 2018

Earth Systems Pacific	Monterey Road Development 18960 Monterey Road Morgan Hill, California	**Site and Sample Location Map** 303754-001

APPENDIX B

PHOTOGRAPHS



Entrance looking east



Entrance looking west



Towed vehicle storage



Dismantling Pad





Dismantling Pad



North side of parts warehouse



Salvage vehicle storage



Salvage vehicle storage



Entrance looking north



Parts warehouse



Parts warehouse



View of automobile cusher looking east



Automobile cusher



Automobile cusher hydraulic fluid tank



Waste soil from crusher operations

Earth Systems Pacific	Monterey Road Development 18960 Monterey Road Morgan Hill, California	Site Photographs 303754-001

APPENDIX C

AERIAL PHOTOGRAPHS

Monterey Road Development

18960 Monterey Road

Morgan Hill, CA 95037

Inquiry Number: 5989310.11

February 27, 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

02/27/20

Site Name:

Monterey Road Development
18960 Monterey Road
Morgan Hill, CA 95037
EDR Inquiry # 5989310.11

Client Name:

Earth Systems Pacific, Northern CA
500 Park Center Drive
Hollister, CA 95023
Contact: Brett Faust

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'	Acquisition Date: August 21, 1998	USGS/DOQQ
1982	1"=500'	Flight Date: July 05, 1982	USDA
1974	1"=500'	Flight Date: July 12, 1974	USGS
1970	1"=500'	Flight Date: April 24, 1970	USGS
1968	1"=500'	Flight Date: June 14, 1968	USGS
1963	1"=500'	Flight Date: June 24, 1963	EDR Proprietary Aerial Viewpoint
1956	1"=500'	Flight Date: June 12, 1956	USDA
1950	1"=500'	Flight Date: March 28, 1950	USDA
1948	1"=500'	Flight Date: September 26, 1948	USDA
1940	1"=500'	Flight Date: June 09, 1940	USDA
1939	1"=500'	Flight Date: October 20, 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.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2020 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.


INQUIRY #: 5989310.11
YEAR: 2016
= 500'
N
EDR


INQUIRY #: 5989310.11
YEAR: 2012
= 500'
N
EDR


INQUIRY #: 5989310.11
YEAR: 2009
= 500'
N
EDR



INQUIRY #: 5989310.11

YEAR: 2006

= 500'

N

EDR



INQUIRY #: 5989310.11

YEAR: 1998

= 500'

N

EDR

Subject boundary not shown because it exceeds image extent or image is not georeferenced.



INQUIRY #: 5989310.11

YEAR: 1982

= 500'

N

EDR


INQUIRY #: 5989310.11
YEAR: 1974
= 500'
N
EDR



INQUIRY #: 5989310.11

YEAR: 1970

= 500'

N

EDR


INQUIRY #: 5989310.11
YEAR: 1968
= 500'
N
EDR



INQUIRY #: 5989310.11

YEAR: 1963

= 500'

N

EDR



INQUIRY #: 5989310.11

YEAR: 1956

= 500'

N

EDR



INQUIRY #: 5989310.11

YEAR: 1950

= 500'

N

EDR



INQUIRY #: 5989310.11

YEAR: 1948

= 500'

N

EDR

[redacted]



INQUIRY #: 5989310.11

YEAR: 1940

= 500'

N

EDR



INQUIRY #: 5989310.11

YEAR: 1939

= 500'

N

EDR

APPENDIX D

TOPOGRAPHIC MAPS

Monterey Road Development

18960 Monterey Road

Morgan Hill, CA 95037

Inquiry Number: 5989310.4

February 27, 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

02/27/20

Site Name:

Monterey Road Development
18960 Monterey Road
Morgan Hill, CA 95037
EDR Inquiry # 5989310.4

Client Name:

Earth Systems Pacific, Northern CA
500 Park Center Drive
Hollister, CA 95023
Contact: Brett Faust

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Earth Systems Pacific, Northern CA 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.# NA

Project: Monterey Road Development

Coordinates:

Latitude:	37.149818 37° 8' 59" North
Longitude:	-121.668759 -121° 40' 8" West
UTM Zone:	Zone 10 North
UTM X Meters:	618218.70
UTM Y Meters:	4112321.85
Elevation:	353.00' above sea level

Maps Provided:

2012
1980
1973
1968
1955
1939
1917

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

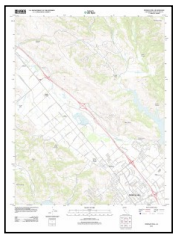
Copyright 2020 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets



Morgan Hill
2012
7.5-minute, 24000

1980 Source Sheets



Morgan Hill
1980
7.5-minute, 24000
Aerial Photo Revised 1978

1973 Source Sheets



Morgan Hill
1973
7.5-minute, 24000
Aerial Photo Revised 1973

1968 Source Sheets



Morgan Hill
1968
7.5-minute, 24000
Aerial Photo Revised 1968

Topo Sheet Key

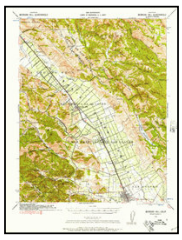
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1955 Source Sheets



Morgan Hill
1955
7.5-minute, 24000
Aerial Photo Revised 1953

1939 Source Sheets



Morgan Hill
1939
15-minute, 62500
Aerial Photo Revised 1939

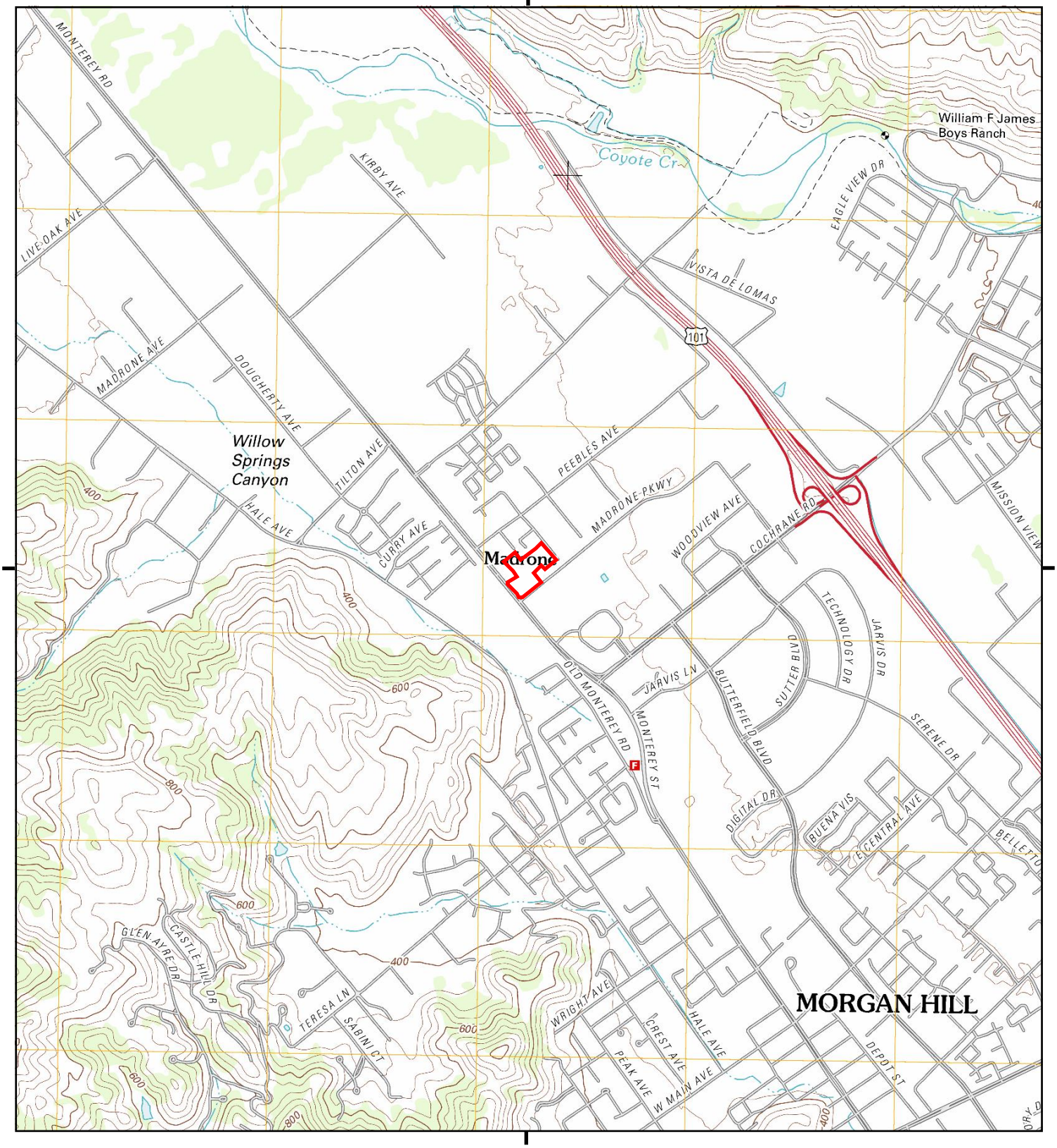
1917 Source Sheets



Morgan Hill
1917
15-minute, 62500

Historical Topo Map

2012



This report includes information from the following map sheet(s).

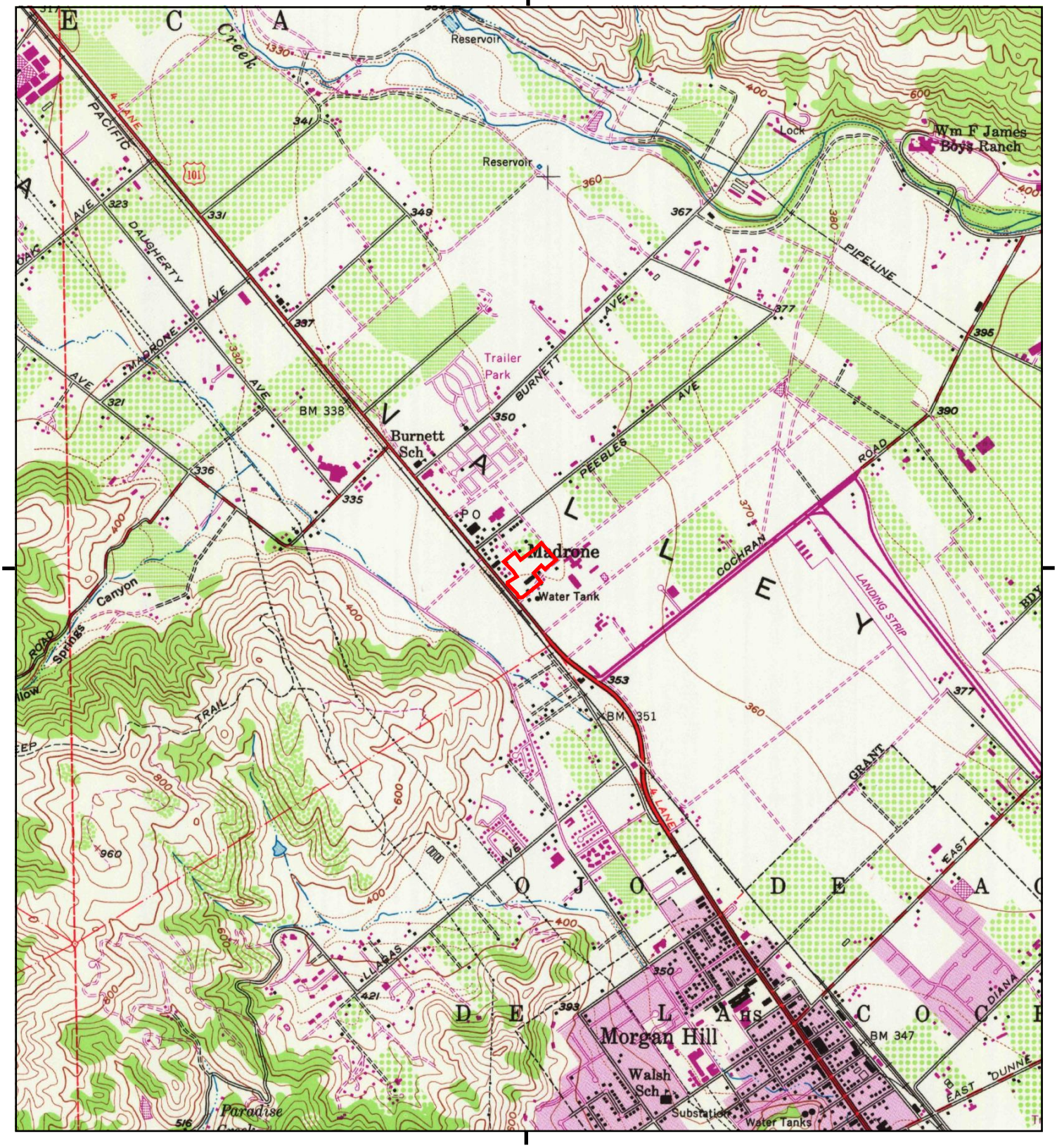
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Morgan Hill, 2012, 7.5-minute

SITE NAME: Monterey Road Development
ADDRESS: 18960 Monterey Road
Morgan Hill, CA 95037
CLIENT: Earth Systems Pacific, Northern CA

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

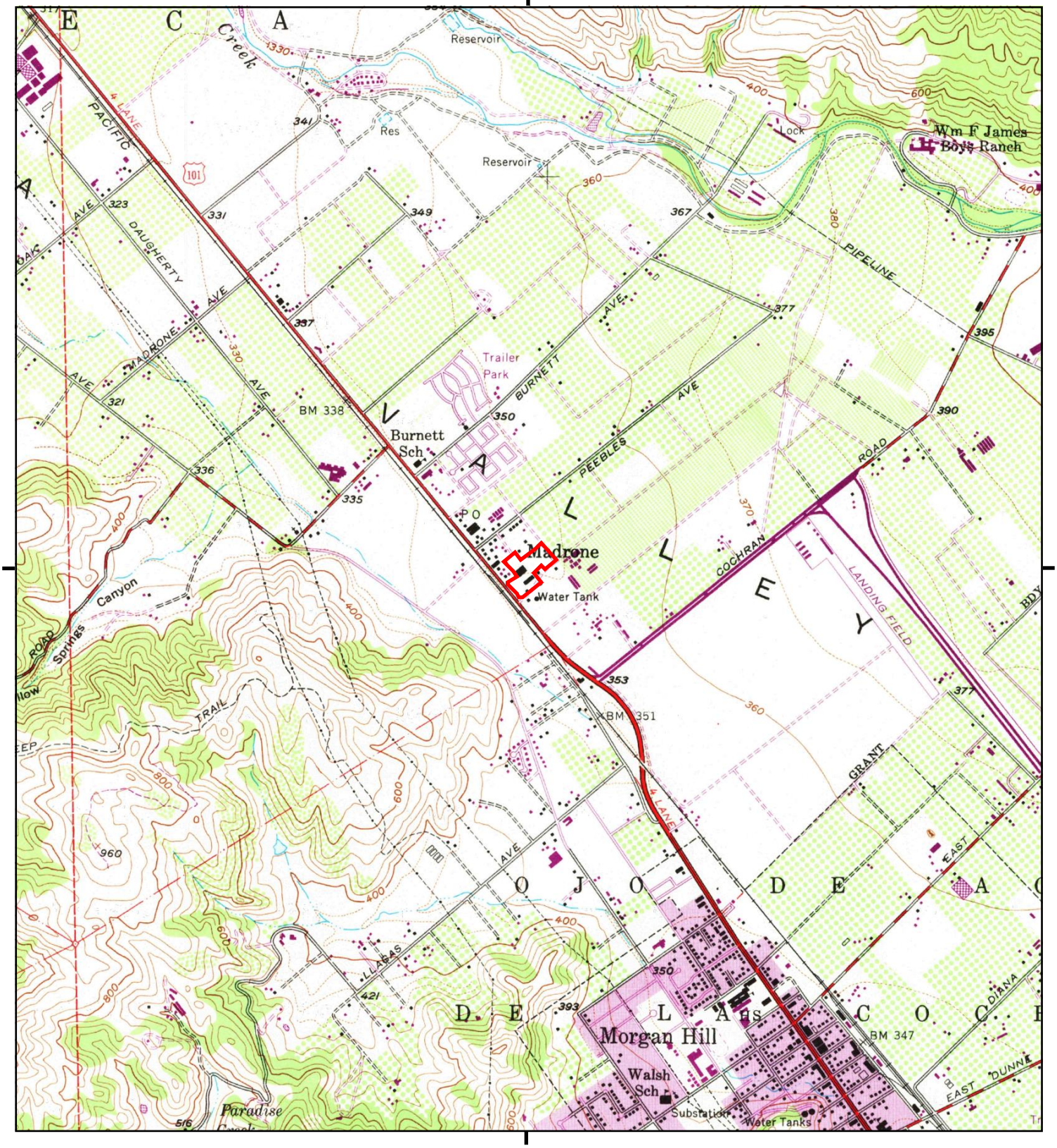
TP, Morgan Hill, 1980, 7.5-minute

SITE NAME: Monterey Road Development
ADDRESS: 18960 Monterey Road
Morgan Hill, CA 95037
CLIENT: Earth Systems Pacific, Northern CA

N

Historical Topo Map

1973



This report includes information from the following map sheet(s).

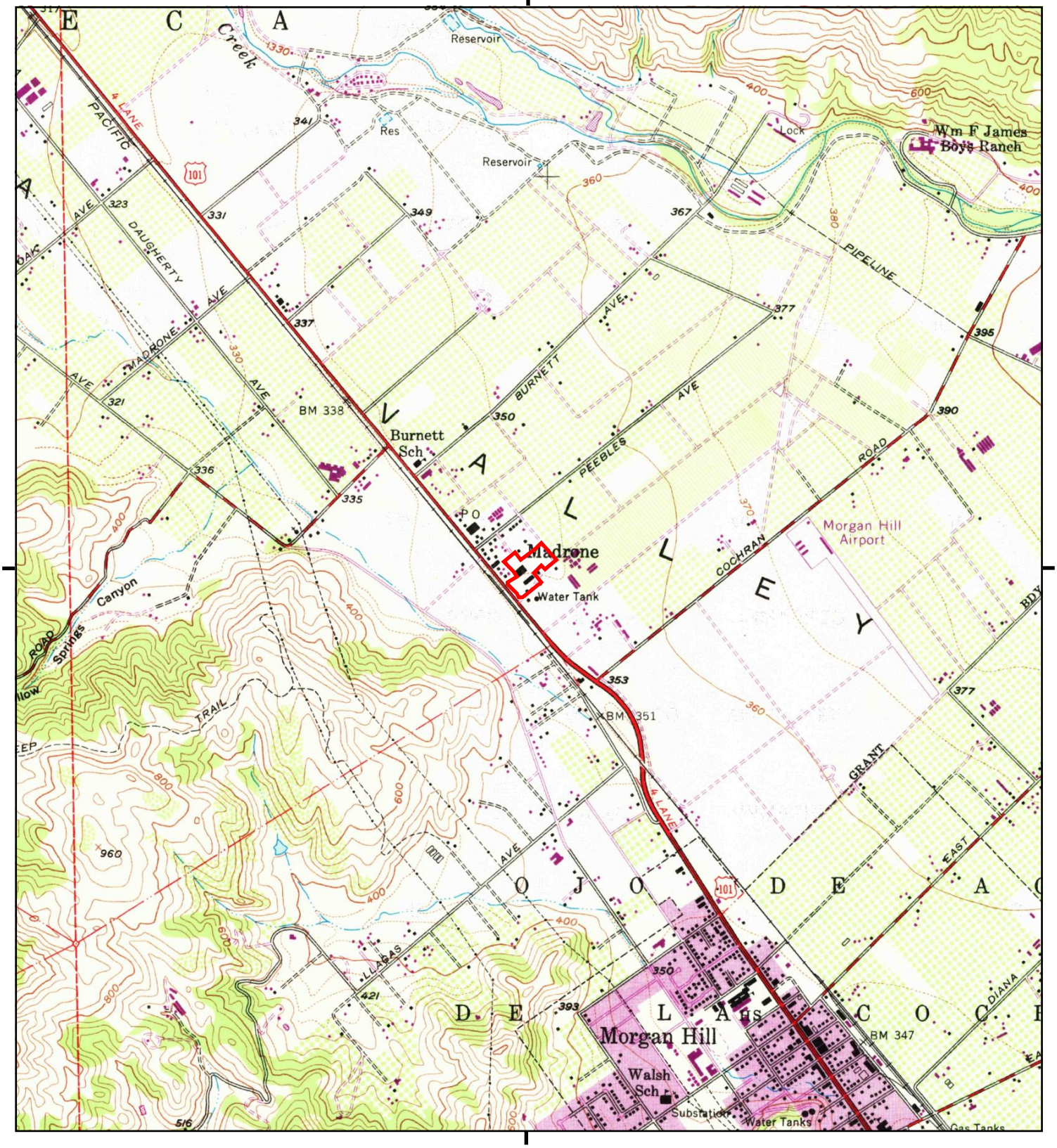
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Morgan Hill, 1973, 7.5-minute

SITE NAME: Monterey Road Development
ADDRESS: 18960 Monterey Road
Morgan Hill, CA 95037
CLIENT: Earth Systems Pacific, Northern CA

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

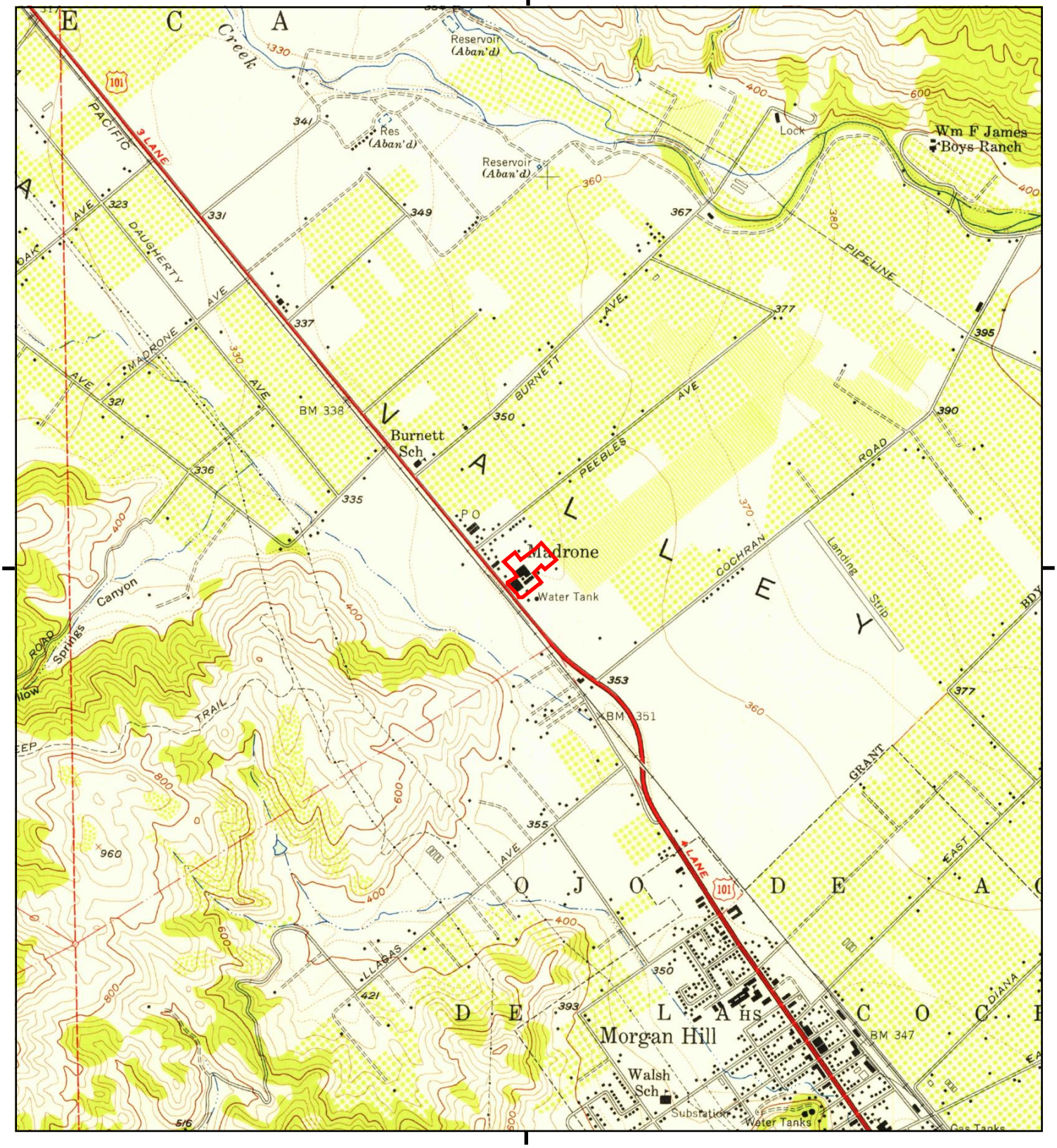
TP, Morgan Hill, 1968, 7.5-minute

SITE NAME: Monterey Road Development
ADDRESS: 18960 Monterey Road
Morgan Hill, CA 95037
CLIENT: Earth Systems Pacific, Northern CA

N

Historical Topo Map

1955



This report includes information from the following map sheet(s).

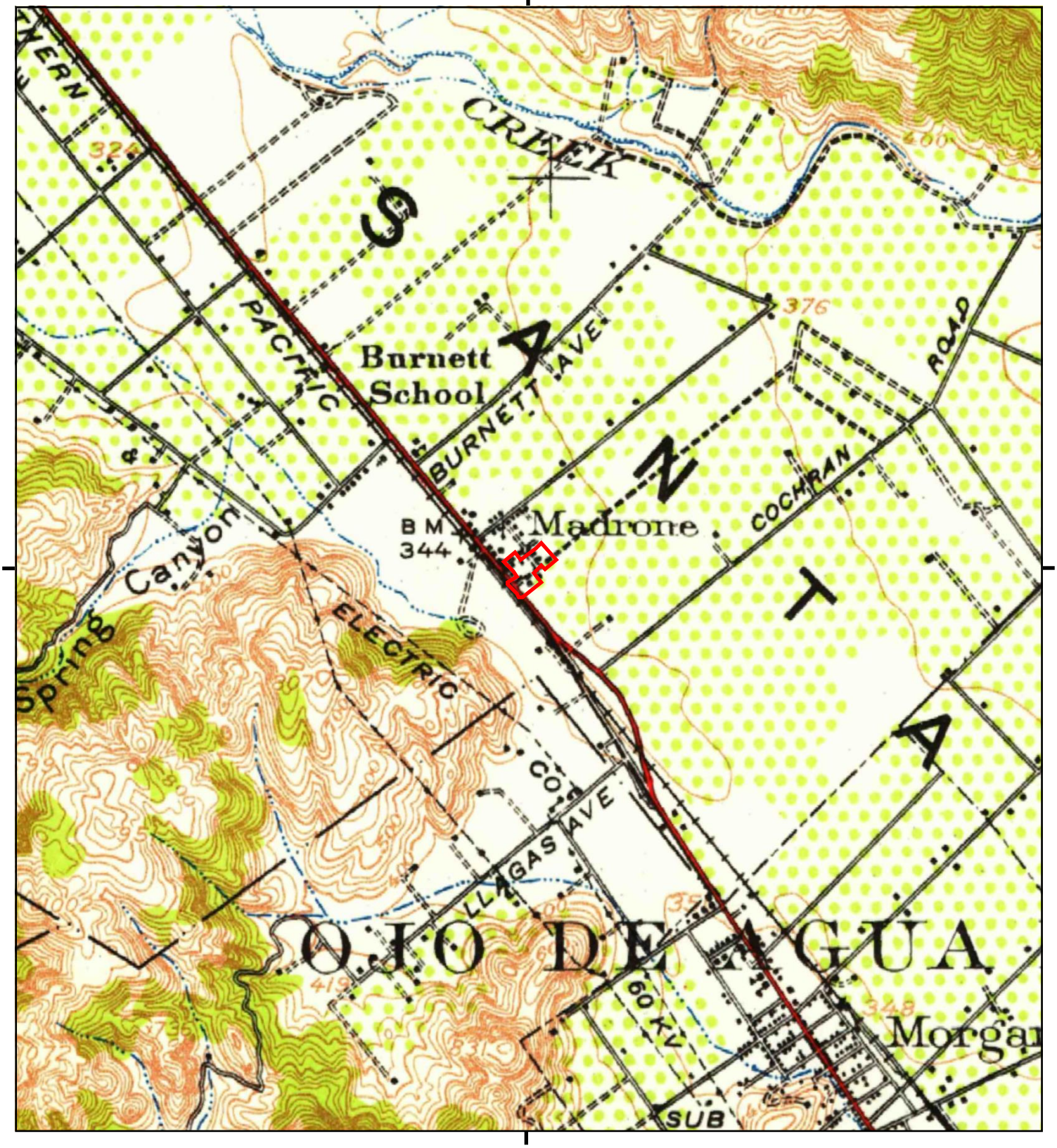
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Morgan Hill, 1955, 7.5-minute

SITE NAME: Monterey Road Development
ADDRESS: 18960 Monterey Road
Morgan Hill, CA 95037
CLIENT: Earth Systems Pacific, Northern CA

N



This report includes information from the following map sheet(s).

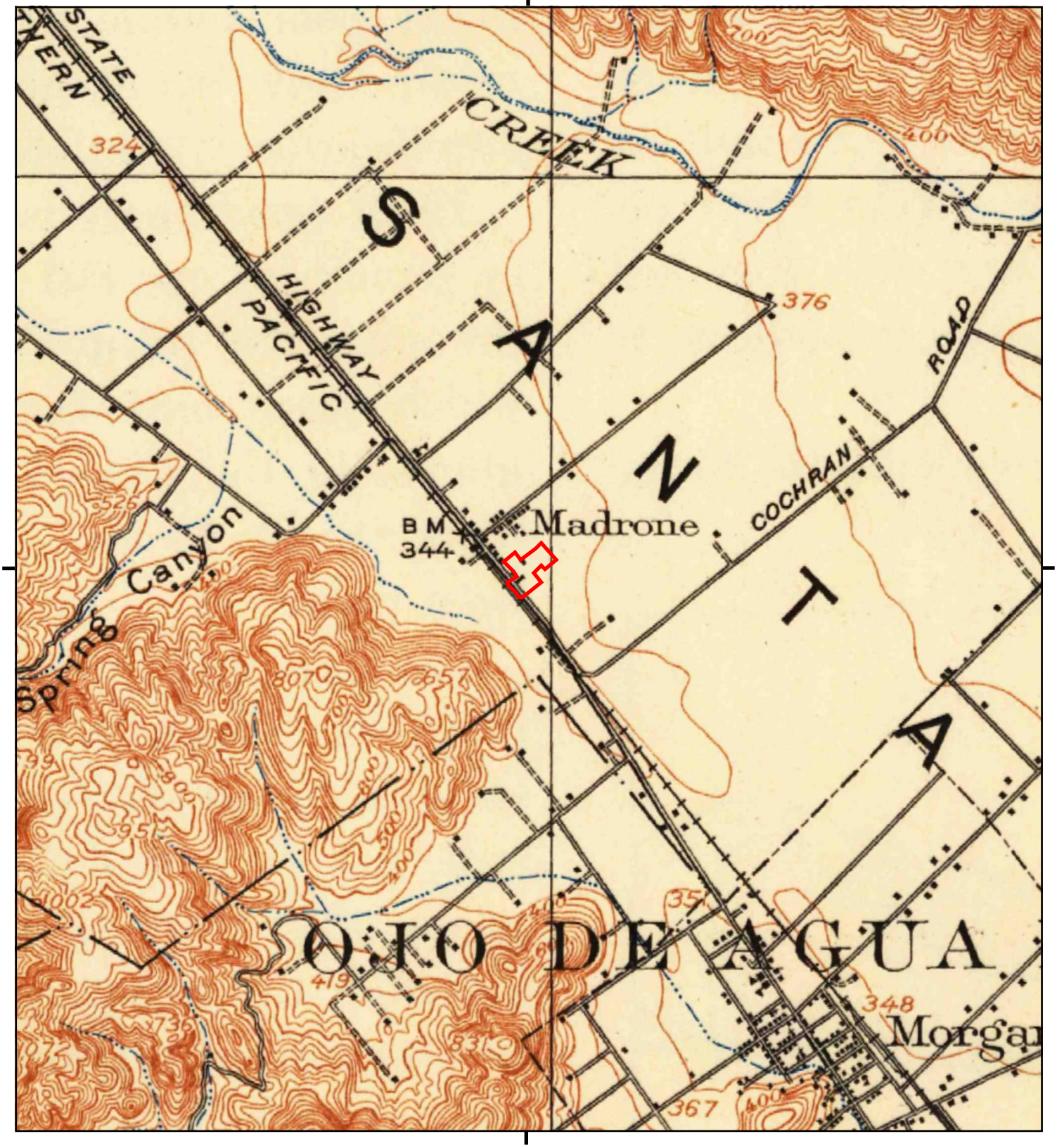
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Morgan Hill, 1939, 15-minute

SITE NAME: Monterey Road Development
ADDRESS: 18960 Monterey Road
Morgan Hill, CA 95037
CLIENT: Earth Systems Pacific, Northern CA

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, Morgan Hill, 1917, 15-minute

SITE NAME: Monterey Road Development
ADDRESS: 18960 Monterey Road
Morgan Hill, CA 95037
CLIENT: Earth Systems Pacific, Northern CA

N

APPENDIX E

AGENCY DATABASE SEARCH REPORT

Monterey Road Development
18960 Monterey Road
Morgan Hill, CA 95037

Inquiry Number: 5989310.2s
February 27, 2020

EDR Summary Radius Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	9
Orphan Summary	352
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-11
Physical Setting Source Map Findings	A-13
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2020 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

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

18960 MONTEREY ROAD
MORGAN HILL, CA 95037

COORDINATES

Latitude (North):	37.1498180 - 37° 8' 59.34''
Longitude (West):	121.6687590 - 121° 40' 7.53''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	618221.6
UTM Y (Meters):	4112118.2
Elevation:	353 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	TP
Source:	U.S. Geological Survey

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140609, 20140613
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
18960 MONTEREY ROAD
MORGAN HILL, CA 95037

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	T-MOBILE WEST, LLC S	18960 MONTEREY ST	CERS		TP
A2	CAL. SALVAGE & AUTO	18960 MONTEREY ST	HAZNET, HWTS		TP
A3	CAL. SALVAGE & AUTO	18960 MONTEREY ST	FINDS, ECHO		TP
A4	CAL. SALVAGE & AUTO	18960 MONTEREY ST	RCRA NonGen / NLR		TP
B5	M.M. GOMES & SON	18920 MONTEREY ST	HIST UST	Higher	1 ft.
B6	M.M. GOMES & SON	18920 MONTEREY	SWEEPS UST, CA FID UST	Higher	1 ft.
B7	T B I-MISSION WEST	18922 MONTEREY RD	HWTS	Higher	27, 0.005, SW
C8	PARAMIT CORPORATION	18735 MADRONE PARKWA	CUPA Listings, NPDES, CIWQS	Higher	96, 0.018, SSE
C9	PARAMIT CORPORATION	18735 MADRONE PY	CERS HAZ WASTE, CUPA Listings, CERS	Higher	96, 0.018, SSE
C10	PARAMIT CORPORATION	18735 MADRONE PKWY	HAZNET, HWTS	Higher	96, 0.018, SSE
C11	PARAMIT CORPORATION	18735 MADRONE PKWY	RCRA-SQG	Higher	96, 0.018, SSE
C12	PARAMIT CORPORATION	18735 MADRONE PARKWA	HAZNET, HWTS	Higher	96, 0.018, SSE
13	ELENA S. JIMENEZ	19060 ROSE LN.	HWTS	Lower	186, 0.035, NNW
D14	ITT EXELIS	18705 MADRONE PKWY	HAZNET, HWTS	Higher	341, 0.065, East
D15	EDO RECONNAISSANCE A	18715 MADRONE PKWY	HAZNET, HWTS	Higher	341, 0.065, East
D16	ITT-RECONNAISSANCE &	18705 MADRONE PY	CUPA Listings	Higher	341, 0.065, East
D17	HARRIS CORPORATION	18705 MADRONE PKWY	RCRA NonGen / NLR	Higher	341, 0.065, East
D18	HARRIS CORPORATION	18705 MADRONE PKWY	HWTS	Higher	341, 0.065, East
D19	CONDOR SYSTEMS INC	18715 MADRONE PARKWA	HWTS	Higher	341, 0.065, East
E20	PONZINI'S COMMUNITY	19190 N MONTEREY	HAZNET, HWTS	Lower	397, 0.075, WNW
E21	PONZINI'S COMMUNITY	19190 N MONTEREY	RCRA NonGen / NLR	Lower	397, 0.075, WNW
E22	PONZINI'S COMMUNITY	19190 MONTEREY RD	CERS HAZ WASTE, CERS	Lower	447, 0.085, WNW
E23	PONZINI'S COMMUNITY	19190 MONTEREY RD	CUPA Listings	Lower	447, 0.085, WNW
E24	STEPHEN PENA	19220 MONTEREY HWY	HAZNET, HWTS	Lower	613, 0.116, WNW
25	DAVE VINCENT	330 PEEBLES AVE	HWTS	Higher	815, 0.154, NNE
F26	SOTELO BROS FORKLIFT	19280 NORTH MONTEREY	HAZNET, HWTS	Lower	819, 0.155, WNW
F27	SUPERIOR AUTOMOTIVE	19280 N MONTEREY RD	HAZNET, HWTS	Lower	819, 0.155, WNW
F28	SUPERIOR AUTOMOTIVE	19280 MONTEREY HY	CERS HAZ WASTE, CUPA Listings, CERS	Lower	819, 0.155, WNW
G29	SIERRA BIOSOURCE	260 COCHRANE CIRCLE	HWTS	Higher	906, 0.172, SE
G30	CELLIANCE	260 COCHRANE CIR	HAZNET, HWTS	Higher	906, 0.172, SE
G31	ARAGEN BIOSCIENCE IN	260 COCHRANE CIR STE	RCRA NonGen / NLR	Higher	906, 0.172, SE
G32	ARAGEN BIOSCIENCE IN	260 COCHRANE CIR	CERS HAZ WASTE, CERS	Higher	906, 0.172, SE
G33	ARAGEN BIOSCIENCE IN	260 COCHRANE CIR STE	HAZNET, HWTS	Higher	906, 0.172, SE
34	ALLWIN21 CORP	220 COCHRANE CL	CUPA Listings	Higher	916, 0.173, ESE
F35	SUPERIOR AUTOMOTIVE	19280 MONTEREY ST	HWTS	Lower	981, 0.186, NW
F36	SUPERIOR AUTOMOTIVE	19280 MONTEREY ST	RCRA NonGen / NLR	Lower	981, 0.186, NW
G37	CIDCO INC.	220 COCHRANE CIR	HAZNET, HWTS	Higher	1014, 0.192, ESE
G38	DEPRESSURIZED TECHNO	335 COCHRANE CIRCLE	RCRA-SQG, FINDS, ECHO, HAZNET, ICE, HWP, CERS,...	Higher	1017, 0.193, SE
G39	DEPRESSURIZED TECHNO	335 COCHRANE CIR	HAZNET, HWTS	Higher	1017, 0.193, SE

MAPPED SITES SUMMARY

Target Property Address:
18960 MONTEREY ROAD
MORGAN HILL, CA 95037

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
G40	ARAGEN BIOSCIENCES	260 COCHRANE CL STE	CUPA Listings	Higher	1025, 0.194, ESE
H41	AMTECH MICROELECTRON	485 COCHRANE CIR	CERS HAZ WASTE, CUPA Listings, HAZNET, HWTS	Higher	1071, 0.203, SE
H42	AMTECH MICROELECTRON	485 COCHRANE CIR	RCRA NonGen / NLR	Higher	1071, 0.203, SE
I43	COLOMBINI ALBERT J E	350 PEEBLES AVENUE	HIST UST	Higher	1073, 0.203, NNE
G44	DIE TECH	225 COCHRANE CIR CTE	RCRA NonGen / NLR	Higher	1170, 0.222, ESE
G45	MICMAR INC	225 COCHRANE CIR UNI	HWTS	Higher	1170, 0.222, ESE
G46	DIE TECH	225 COCHRANE CIR CTE	HWTS	Higher	1170, 0.222, ESE
G47	MICMAR INC	225 COCHRANE CIR UNI	RCRA NonGen / NLR	Higher	1170, 0.222, ESE
48	WARREN COX	125 CAMPOLI LN	HWTS	Higher	1186, 0.225, South
49	OZUNA FOOD PRODUCTS	180 COCHRANE CIR	CERS HAZ WASTE, CERS	Higher	1187, 0.225, ESE
I50	G E WOLFE CONSTRUCTI	395 PEEBLES AVE	HWTS	Higher	1287, 0.244, NNE
I51	GE WOLFE CONSTRUCTIO	395 PEEBLES AV	CUPA Listings	Higher	1287, 0.244, NNE
I52	GE WOLFE CONSTRUCTIO	395 PEEBLES AVE	HWTS	Higher	1287, 0.244, NNE
I53	1X G E WOLFE CONSTRU	395 PEEBLES AVE	HWTS	Higher	1287, 0.244, NNE
J54	STOCKDALES HOT ROD P	19380 MONTEREY ST	HAZNET, HWTS	Lower	1303, 0.247, NW
J55	FAMILY RV	19380 MONTEREY ST	HWTS	Lower	1303, 0.247, NW
J56	FAMILY ADVENTURES RV	19380 MONTEREY ST	RCRA NonGen / NLR	Lower	1303, 0.247, NW
J57	FAMILY ADVENTURES RV	19380 MONTEREY ST	CERS HAZ WASTE, CUPA Listings, CERS, HWTS	Lower	1303, 0.247, NW
J58	ALPINE RECREATION	19380 MONTEREY ST	HAZNET, HWTS	Lower	1303, 0.247, NW
K59	IRISH CONSTRUCTION	19490 MONTEREY ST	LUST, CERS HAZ WASTE, SWEEPS UST, CUPA Listings,...	Lower	1752, 0.332, NW
K60	COCHRANE PLAZA CHEVR	19490 MONTEREY RD	LUST, HIST LUST	Lower	1804, 0.342, NW
L61	MADRONE LAND CORPORA	645 COCHRANE ROAD	CPS-SLIC	Higher	2303, 0.436, East
L62	MADRONE LAND CORP./S	645 COCHRANE	ENVIROSTOR, CPS-SLIC, DEED, HIST CORTESE, CERS	Higher	2303, 0.436, East
63	TORAY ADVANCED COMPO	18410 BUTTERFIELD BL	RCRA-LQG, ENVIROSTOR, WDS	Higher	3284, 0.622, ESE
64	PHOTOTEK	18450 SUTTER BLVD	RCRA-SQG, ENVIROSTOR, HAZNET, HWTS	Higher	3738, 0.708, East
65	NEW MORGAN HILL HIGH	BURNETT AVENUE	ENVIROSTOR, SCH	Higher	3823, 0.724, North
66	ANN SOBRATO HIGH SCH	11230 MONTEREY HIGHW	ENVIROSTOR, LUST, SCH, CERS	Lower	4227, 0.801, NW

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
T-MOBILE WEST, LLC S 18960 MONTEREY ST MORGAN HILL, CA 95037	CERS	N/A
CAL. SALVAGE & AUTO 18960 MONTEREY ST MORGAN HILL, CA 95037	HAZNET GEPAID: CAL000141958 HWTS	N/A
CAL. SALVAGE & AUTO 18960 MONTEREY ST MORGAN HILL, CA 95037	FINDS Registry ID:: 110070446995 ECHO Registry ID: 110070446995	N/A
CAL. SALVAGE & AUTO 18960 MONTEREY ST MORGAN HILL, CA 95037	RCRA NonGen / NLR EPA ID:: CAL000141958	CAL000141958

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

Federal RCRA generators list

RCRA-SQG: A review of the RCRA-SQG list, as provided by EDR, and dated 12/16/2019 has revealed that there are 2 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PARAMIT CORPORATION	18735 MADRONE PKWY	SSE 0 - 1/8 (0.018 mi.)	C11	11

EPA ID:: CAR000260414

DEPRESSURIZED TECHNO	***335 COCHRANE CIRCLE***	***SE 1/8 - 1/4 (0.193 mi.)***	***G38***	***16***

EPA ID:: CAD983665068

State- and tribal - equivalent CERCLIS

ENVIROSTOR: A review of the ENVIROSTOR list, as provided by EDR, and dated 10/28/2019 has revealed that there are 5 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MADRONE LAND CORP./S	***645 COCHRANE***	***E 1/4 - 1/2 (0.436 mi.)***	***L62***	***21***
Facility Id: 43010016				
Status: Refer: RWQCB				
TORAY ADVANCED COMPO	***18410 BUTTERFIELD BL***	***ESE 1/2 - 1 (0.622 mi.)***	***63***	***22***
Facility Id: 71004096				
Status: Inactive - Needs Evaluation				
PHOTOTEK	***18450 SUTTER BLVD***	***E 1/2 - 1 (0.708 mi.)***	***64***	***22***
Facility Id: 71003458				
Status: Inactive - Needs Evaluation				
NEW MORGAN HILL HIGH	***BURNETT AVENUE***	***N 1/2 - 1 (0.724 mi.)***	***65***	***22***
Facility Id: 43010029				
Status: Certified				

Lower Elevation	Address	Direction / Distance	Map ID	Page
ANN SOBRATO HIGH SCH	***11230 MONTEREY HIGHW***	***NW 1/2 - 1 (0.801 mi.)***	***66***	***23***
Facility Id: 43010024				
Status: No Further Action				

State and tribal leaking storage tank lists

LUST: A review of the LUST list, as provided by EDR, has revealed that there are 2 LUST sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
IRISH CONSTRUCTION	***19490 MONTEREY ST***	***NW 1/4 - 1/2 (0.332 mi.)***	***K59***	***20***
Database: LUST, Date of Government Version: 12/09/2019				
Global Id: T0608502025				
Status: Completed - Case Closed				
COCHRANE PLAZA CHEVR	***19490 MONTEREY RD***	***NW 1/4 - 1/2 (0.342 mi.)***	***K60***	***21***
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Facility Status: Case Closed				
date9: 1/15/1998				

EXECUTIVE SUMMARY

CPS-SLIC: 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.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MADRONE LAND CORPORA Database: SLIC REG 2, Date of Government Version: 09/30/2004 Facility Id: SL20274892	645 COCHRANE ROAD	E 1/4 - 1/2 (0.436 mi.)	L61	21
MADRONE LAND CORP./S Database: CPS-SLIC, Date of Government Version: 12/09/2019 Facility Status: Completed - Case Closed Global Id: SL20274892	***645 COCHRANE***	***E 1/4 - 1/2 (0.436 mi.)***	***L62***	***21***

HIST LUST: A review of the HIST LUST list, as provided by EDR, and dated 03/29/2005 has revealed that there is 1 HIST LUST site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
COCHRANE PLAZA CHEVR SCVWD ID: 09S3E17E01	***19490 MONTEREY RD***	***NW 1/4 - 1/2 (0.342 mi.)***	***K60***	***21***

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

CERS HAZ WASTE: A review of the CERS HAZ WASTE list, as provided by EDR, and dated 10/21/2019 has revealed that there are 7 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PARAMIT CORPORATION	***18735 MADRONE PY***	***SSE 0 - 1/8 (0.018 mi.)***	***C9***	***10***
ARAGEN BIOSCIENCE IN	***260 COCHRANE CIR***	***SE 1/8 - 1/4 (0.172 mi.)***	***G32***	***15***
AMTECH MICROELECTRON	***485 COCHRANE CIR***	***SE 1/8 - 1/4 (0.203 mi.)***	***H41***	***17***
OZUNA FOOD PRODUCTS	***180 COCHRANE CIR***	***ESE 1/8 - 1/4 (0.225 mi.)***	***49***	***19***

Lower Elevation	Address	Direction / Distance	Map ID	Page
PONZINI'S COMMUNITY	***19190 MONTEREY RD***	***WNW 0 - 1/8 (0.085 mi.)***	***E22***	***13***
SUPERIOR AUTOMOTIVE	***19280 MONTEREY HY***	***WNW 1/8 - 1/4 (0.155 mi.)***	***F28***	***14***
FAMILY ADVENTURES RV	***19380 MONTEREY ST***	***NW 1/8 - 1/4 (0.247 mi.)***	***J57***	***20***

Local Lists of Registered Storage Tanks

SWEEPS UST: A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed

that there is 1 SWEEPS UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
M.M. GOMES & SON Status: A Tank Status: A Comp Number: 30289	***18920 MONTEREY***	***0 - 1/8 (0.000 mi.)***	***B6***	***10***

HIST UST: A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 2 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
M.M. GOMES & SON Facility Id: 00000030289	18920 MONTEREY ST	0 - 1/8 (0.000 mi.)	B5	9
COLOMBINI ALBERT J E Facility Id: 00000021417	350 PEEBLES AVENUE	NNE 1/8 - 1/4 (0.203 mi.)	I43	17

CA FID UST: A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there is 1 CA FID UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
M.M. GOMES & SON Facility Id: 43012169 Status: A	***18920 MONTEREY***	***0 - 1/8 (0.000 mi.)***	***B6***	***10***

Local Land Records

DEED: A review of the DEED list, as provided by EDR, and dated 12/03/2019 has revealed that there is 1 DEED site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MADRONE LAND CORP./S Status: COMPLETED - CASE CLOSED Envirostor ID: SL20274892	***645 COCHRANE***	***E 1/4 - 1/2 (0.436 mi.)***	***L62***	***21***

Other Ascertainable Records

RCRA NonGen / NLR: A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/16/2019 has revealed that there are 8 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HARRIS CORPORATION EPA ID:: CAL000430092	18705 MADRONE PKWY	E 0 - 1/8 (0.065 mi.)	D17	12
ARAGEN BIOSCIENCE IN EPA ID:: CAL000318016	260 COCHRANE CIR STE	SE 1/8 - 1/4 (0.172 mi.)	G31	15
AMTECH MICROELECTRON EPA ID:: CAL000407678	485 COCHRANE CIR	SE 1/8 - 1/4 (0.203 mi.)	H42	17
DIE TECH EPA ID:: CAL000429552	225 COCHRANE CIR CTE	ESE 1/8 - 1/4 (0.222 mi.)	G44	18
MICMAR INC EPA ID:: CAL000433137	225 COCHRANE CIR UNI	ESE 1/8 - 1/4 (0.222 mi.)	G47	18

Lower Elevation	Address	Direction / Distance	Map ID	Page
PONZINI'S COMMUNITY EPA ID:: CAL000042610	19190 N MONTEREY	WNW 0 - 1/8 (0.075 mi.)	E21	13
SUPERIOR AUTOMOTIVE EPA ID:: CAL000413527	19280 MONTEREY ST	NW 1/8 - 1/4 (0.186 mi.)	F36	16
FAMILY ADVENTURES RV EPA ID:: CAL000399995	19380 MONTEREY ST	NW 1/8 - 1/4 (0.247 mi.)	J56	20

CUPA Listings: A review of the CUPA Listings list, as provided by EDR, has revealed that there are 10 CUPA Listings sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PARAMIT CORPORATION Database: CUPA SANTA CLARA, Date of Government Version: 11/18/2019	***18735 MADRONE PARKWA***	***SSE 0 - 1/8 (0.018 mi.)***	***C8***	***10***
PARAMIT CORPORATION Database: CUPA SANTA CLARA, Date of Government Version: 11/18/2019	***18735 MADRONE PY***	***SSE 0 - 1/8 (0.018 mi.)***	***C9***	***10***
ITT-RECONNAISSANCE & Database: CUPA SANTA CLARA, Date of Government Version: 11/18/2019	18705 MADRONE PY	E 0 - 1/8 (0.065 mi.)	D16	12
ALLWIN21 CORP Database: CUPA SANTA CLARA, Date of Government Version: 11/18/2019	220 COCHRANE CL	ESE 1/8 - 1/4 (0.173 mi.)	34	15
ARAGEN BIOSCIENCES Database: CUPA SANTA CLARA, Date of Government Version: 11/18/2019	260 COCHRANE CL STE	ESE 1/8 - 1/4 (0.194 mi.)	G40	17
AMTECH MICROELECTRON Database: CUPA SANTA CLARA, Date of Government Version: 11/18/2019	***485 COCHRANE CIR***	***SE 1/8 - 1/4 (0.203 mi.)***	***H41***	***17***
GE WOLFE CONSTRUCTIO Database: CUPA SANTA CLARA, Date of Government Version: 11/18/2019	395 PEEBLES AV	NNE 1/8 - 1/4 (0.244 mi.)	I51	19

Lower Elevation	Address	Direction / Distance	Map ID	Page
PONZINI'S COMMUNITY Database: CUPA SANTA CLARA, Date of Government Version: 11/18/2019	19190 MONTEREY RD	WNW 0 - 1/8 (0.085 mi.)	E23	13
SUPERIOR AUTOMOTIVE Database: CUPA SANTA CLARA, Date of Government Version: 11/18/2019	***19280 MONTEREY HY***	***WNW 1/8 - 1/4 (0.155 mi.)***	***F28***	***14***
FAMILY ADVENTURES RV Database: CUPA SANTA CLARA, Date of Government Version: 11/18/2019	***19380 MONTEREY ST***	***NW 1/8 - 1/4 (0.247 mi.)***	***J57***	***20***

EXECUTIVE SUMMARY

HIST CORTESE: A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 2 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MADRONE LAND CORP./S Reg Id: 43010016	***645 COCHRANE***	***E 1/4 - 1/2 (0.436 mi.)***	***L62***	***21***

Lower Elevation	Address	Direction / Distance	Map ID	Page
IRISH CONSTRUCTION Reg Id: 43-2207	***19490 MONTEREY ST***	***NW 1/4 - 1/2 (0.332 mi.)***	***K59***	***20***

HWP: A review of the HWP list, as provided by EDR, and dated 11/18/2019 has revealed that there is 1 HWP site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DEPRESSURIZED TECHNO EPA Id: CAD983665068 Cleanup Status: CLOSED	***335 COCHRANE CIRCLE***	***SE 1/8 - 1/4 (0.193 mi.)***	***G38***	***16***

HWTS: A review of the HWTS list, as provided by EDR, and dated 10/15/2019 has revealed that there are 31 HWTS sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
T B I-MISSION WEST	18922 MONTEREY RD	SW 0 - 1/8 (0.005 mi.)	B7	10
PARAMIT CORPORATION	***18735 MADRONE PKWY***	***SSE 0 - 1/8 (0.018 mi.)***	***C10***	***10***
PARAMIT CORPORATION	***18735 MADRONE PARKWA***	***SSE 0 - 1/8 (0.018 mi.)***	***C12***	***11***
ITT EXELIS	***18705 MADRONE PKWY***	***E 0 - 1/8 (0.065 mi.)***	***D14***	***11***
EDO RECONNAISSANCE A	***18715 MADRONE PKWY***	***E 0 - 1/8 (0.065 mi.)***	***D15***	***11***
HARRIS CORPORATION	18705 MADRONE PKWY	E 0 - 1/8 (0.065 mi.)	D18	12
CONDOR SYSTEMS INC	18715 MADRONE PARKWA	E 0 - 1/8 (0.065 mi.)	D19	12
DAVE VINCENT	330 PEEBLES AVE	NNE 1/8 - 1/4 (0.154 mi.)	25	13
SIERRA BIOSOURCE	260 COCHRANE CIRCLE	SE 1/8 - 1/4 (0.172 mi.)	G29	14
CELLIANCE	***260 COCHRANE CIR***	***SE 1/8 - 1/4 (0.172 mi.)***	***G30***	***14***
ARAGEN BIOSCIENCE IN	***260 COCHRANE CIR STE***	***SE 1/8 - 1/4 (0.172 mi.)***	***G33***	***15***
CIDCO INC.	***220 COCHRANE CIR***	***ESE 1/8 - 1/4 (0.192 mi.)***	***G37***	***16***
DEPRESSURIZED TECHNO	***335 COCHRANE CIRCLE***	***SE 1/8 - 1/4 (0.193 mi.)***	***G38***	***16***
DEPRESSURIZED TECHNO	***335 COCHRANE CIR***	***SE 1/8 - 1/4 (0.193 mi.)***	***G39***	***17***
AMTECH MICROELECTRON	***485 COCHRANE CIR***	***SE 1/8 - 1/4 (0.203 mi.)***	***H41***	***17***
MICMAR INC	225 COCHRANE CIR UNI	ESE 1/8 - 1/4 (0.222 mi.)	G45	18
DIE TECH	225 COCHRANE CIR CTE	ESE 1/8 - 1/4 (0.222 mi.)	G46	18
WARREN COX	125 CAMPOLI LN	S 1/8 - 1/4 (0.225 mi.)	48	18
G E WOLFE CONSTRUCTI	395 PEEBLES AVE	NNE 1/8 - 1/4 (0.244 mi.)	I50	19
GE WOLFE CONSTRUCTIO	395 PEEBLES AVE	NNE 1/8 - 1/4 (0.244 mi.)	I52	19
1X G E WOLFE CONSTRU	395 PEEBLES AVE	NNE 1/8 - 1/4 (0.244 mi.)	I53	19

Lower Elevation	Address	Direction / Distance	Map ID	Page
ELENA S. JIMENEZ	19060 ROSE LN.	NNW 0 - 1/8 (0.035 mi.)	13	11

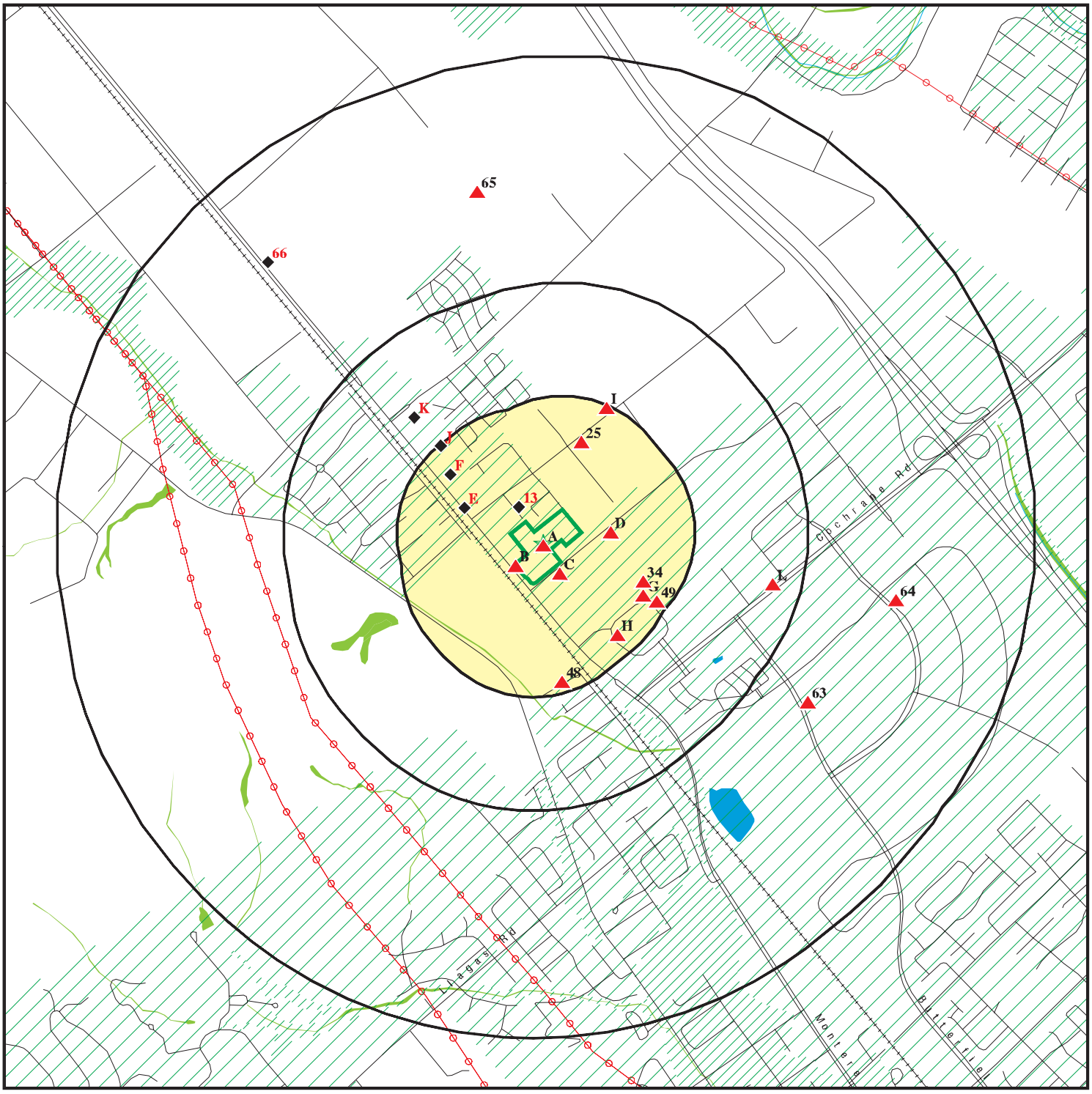
EXECUTIVE SUMMARY

Lower Elevation	Address	Direction / Distance	Map ID	Page
PONZINI'S COMMUNITY	***19190 N MONTEREY***	***WNW 0 - 1/8 (0.075 mi.)***	***E20***	***12***
STEPHEN PENA	***19220 MONTEREY HWY***	***WNW 0 - 1/8 (0.116 mi.)***	***E24***	***13***
SOTELO BROS FORKLIFT	***19280 NORTH MONTEREY***	***WNW 1/8 - 1/4 (0.155 mi.)***	***F26***	***14***
SUPERIOR AUTOMOTIVE	***19280 N MONTEREY RD***	***WNW 1/8 - 1/4 (0.155 mi.)***	***F27***	***14***
SUPERIOR AUTOMOTIVE	19280 MONTEREY ST	NW 1/8 - 1/4 (0.186 mi.)	F35	15
STOCKDALES HOT ROD P	***19380 MONTEREY ST***	***NW 1/8 - 1/4 (0.247 mi.)***	***J54***	***19***
FAMILY RV	19380 MONTEREY ST	NW 1/8 - 1/4 (0.247 mi.)	J55	20
FAMILY ADVENTURES RV	***19380 MONTEREY ST***	***NW 1/8 - 1/4 (0.247 mi.)***	***J57***	***20***
ALPINE RECREATION	***19380 MONTEREY ST***	***NW 1/8 - 1/4 (0.247 mi.)***	***J58***	***20***

Count: 2 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
MORGAN HILL	S111120580	FORMER WHITE GASOLINE	MONTEREY RD & WATSONVILLE RD		LUST
MORGAN HILL	S107541046		VEHICLE STOP AT VINEYARD & MON	95037	CDL

OVERVIEW MAP - 5989310.2S



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

0 1/4 1/2 1 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

N

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:	Monterey Road Development	CLIENT:	Earth Systems Pacific, Northern CA
ADDRESS:	18960 Monterey Road Morgan Hill CA 95037	CONTACT:	Brett Faust
		INQUIRY #:	5989310.2s
LAT/LONG:	37.149818 / 121.668759	DATE:	February 27, 2020 5:49 pm

Copyright © 2020 EDR, Inc. © 2015 TomTom Rel. 2015.

DETAIL MAP - 5989310.2S



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

Indian Reservations BIA

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:	Monterey Road Development	CLIENT:	Earth Systems Pacific, Northern CA
ADDRESS:	18960 Monterey Road Morgan Hill CA 95037	CONTACT:	Brett Faust
LAT/LONG:	37.149818 / 121.668759	INQUIRY #:	5989310.2s
		DATE:	February 27, 2020 5:51 pm

Copyright © 2020 EDR, Inc. © 2015 TomTom Rel. 2015.

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		1	1	NR	NR	NR	2
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	0	1	4	NR	5
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	2	NR	NR	2

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		0	0	2	NR	NR	2
HIST LUST	0.500		0	0	1	NR	NR	1
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								
VCP	0.500		0	0	0	NR	NR	0
INDIAN 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	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		2	5	NR	NR	NR	7
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		1	0	NR	NR	NR	1
HIST UST	0.250		1	1	NR	NR	NR	2
CERS TANKS	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		1	0	NR	NR	NR	1
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	1	NR	NR	1
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	1	2	6	NR	NR	NR	9
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	1	0	NR	NR	NR	NR	1
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001	1	0	NR	NR	NR	NR	1
UXO	1.000		0	0	0	0	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		4	6	NR	NR	NR	10

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	1	0	NR	NR	NR	NR	1
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	2	NR	NR	2
HWP	1.000		0	1	0	0	NR	1
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		0	NR	NR	NR	NR	0
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
HAZMAT	0.250		0	0	NR	NR	NR	0
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		0	NR	NR	NR	NR	0
CERS	0.001	1	0	NR	NR	NR	NR	1
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
HWTS	0.250	1	10	21	NR	NR	NR	32
MINES MRDS	0.001		0	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 --		6	22	41	9	4	0	82

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

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
A1 **Target Property** **Actual: 353 ft.**	**T-MOBILE WEST, LLC SF14155A** **18960 MONTEREY ST** **MORGAN HILL, CA 95037** Click here for full text details	**CERS**	**S121779411** **N/A**
A2 **Target Property** **Actual: 353 ft.**	**CAL. SALVAGE & AUTO PARTS** **18960 MONTEREY ST** **MORGAN HILL, CA 95037** Click here for full text details **HAZNET** GEPAID CAL000141958	**HAZNET** **HWTS**	**S123619347** **N/A**
A3 **Target Property** **Actual: 353 ft.**	**CAL. SALVAGE & AUTO PARTS** **18960 MONTEREY ST** **MORGAN HILL, CA 95037** Click here for full text details **FINDS** Registry ID: 110070446995 **ECHO** Registry ID 110070446995	**FINDS** **ECHO**	**1024658607** **N/A**
A4 **Target Property** **Actual: 353 ft.**	**CAL. SALVAGE & AUTO PARTS** **18960 MONTEREY ST** **MORGAN HILL, CA 95037** Click here for full text details **RCRA NonGen / NLR** EPA Id CAL000141958	**RCRA NonGen / NLR**	**1024793721** **CAL000141958**
B5 **< 1/8** **1 ft.** **Relative: Higher**	**M.M. GOMES & SON** **18920 MONTEREY ST** **MORGAN HILL, CA 95037** Click here for full text details **HIST UST** Facility Id 00000030289	**HIST UST**	**U001601581** **N/A**

B6
< 1/8
1 ft.

M.M. GOMES & SON
18920 MONTEREY
MORGAN HILL, CA 95037

SWEEPS UST **S101625248**
CA FID UST **N/A**

Relative: Higher

Click here for full text details

SWEEPS UST
Status A
Tank Status A
Comp Number 30289

CA FID UST
Facility Id 43012169
Status A

B7
SW
< 1/8
0.005 mi.
27 ft.

T B I-MISSION WEST
18922 MONTEREY RD
MORGAN HILL, CA 95037

HWTS **S124564901**
N/A

Relative: Higher

Click here for full text details

C8
SSE
< 1/8
0.018 mi.
96 ft.

PARAMIT CORPORATION
18735 MADRONE PARKWAY
MORGAN HILL, CA 95037

CUPA Listings **S113114740**
NPDES **N/A**
CIWQS

Relative: Higher

Click here for full text details

NPDES
Facility Status Terminated

C9
SSE
< 1/8
0.018 mi.
96 ft.

PARAMIT CORPORATION
18735 MADRONE PY
MORGAN HILL, CA 95037

CERS HAZ WASTE **S106092389**
CUPA Listings **N/A**
CERS

Relative: Higher

Click here for full text details

C10
SSE
< 1/8
0.018 mi.
96 ft.

PARAMIT CORPORATION
18735 MADRONE PKWY
MORGAN HILL, CA 95037

HAZNET **S123639143**
HWTS **N/A**

Relative: Higher

Click here for full text details

HAZNET
GEPAID CAR000260414

C11
SSE
< 1/8
0.018 mi.
96 ft.

Relative:
Higher

PARAMIT CORPORATION
18735 MADRONE PKWY
MORGAN HILL, CA 95037

RCRA-SQG **1018273832**
CAR000260414

Click here for full text details

RCRA-SQG
EPA Id CAR000260414

C12
SSE
< 1/8
0.018 mi.
96 ft.

Relative:
Higher

PARAMIT CORPORATION
18735 MADRONE PARKWAY
MORGAN HILL, CA 95037

HAZNET **S123622190**
HWTS **N/A**

Click here for full text details

HAZNET
GEPAID CAL000230027

13
NNW
< 1/8
0.035 mi.
186 ft.

Relative:
Lower

ELENA S. JIMENEZ
19060 ROSE LN.
MORGAN HILL, CA 95037

HWTS **S124548157**
N/A

Click here for full text details

D14
East
< 1/8
0.065 mi.
341 ft.

Relative:
Higher

ITT EXELIS
18705 MADRONE PKWY
MORGAN HILL, CA 95037

HAZNET **S113156384**
HWTS **N/A**

Click here for full text details

HAZNET
GEPAID CAL000344082

D15
East
< 1/8
0.065 mi.
341 ft.

Relative:
Higher

EDO RECONNAISSANCE AND SURVEILLANCE
18715 MADRONE PKWY
MORGAN HILL, CA 95037

HAZNET **S113120969**
HWTS **N/A**

Click here for full text details

HAZNET
GEPAID CAL000256284

D16
East
< 1/8
0.065 mi.
341 ft.

Relative:
Higher

ITT-RECONNAISSANCE & SURVEILLANCE
18705 MADRONE PY
MORGAN HILL, CA 95037

CUPA Listings

S121472613
N/A

Click here for full text details

D17
East
< 1/8
0.065 mi.
341 ft.

Relative:
Higher

HARRIS CORPORATION
18705 MADRONE PKWY
MORGAN HILL, CA 95037

RCRA NonGen / NLR

1024861607
CAL000430092

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000430092

D18
East
< 1/8
0.065 mi.
341 ft.

Relative:
Higher

HARRIS CORPORATION
18705 MADRONE PKWY
MORGAN HILL, CA 95037

HWTS

S124917849
N/A

Click here for full text details

D19
East
< 1/8
0.065 mi.
341 ft.

Relative:
Higher

CONDOR SYSTEMS INC
18715 MADRONE PARKWAY
MORGAN HILL, CA 95037

HWTS

S124830702
N/A

Click here for full text details

E20
WNW
< 1/8
0.075 mi.
397 ft.

Relative:
Lower

PONZINI'S COMMUNITY GARAGE & TOWING
19190 N MONTEREY
MORGAN HILL, CA 95037

HAZNET
HWTS

S113038678
N/A

Click here for full text details

HAZNET
GEPAID CAL000042610

E21
WNW
< 1/8
0.075 mi.
397 ft.

Relative:
Lower

PONZINI'S COMMUNITY GARAGE & TOWING
19190 N MONTEREY
MORGAN HILL, CA 95037

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000042610

RCRA NonGen / NLR **1024788187**
CAL000042610

E22
WNW
< 1/8
0.085 mi.
447 ft.

Relative:
Lower

PONZINI'S COMMUNITY GARAGE
19190 MONTEREY RD
MORGAN HILL, CA 95037

Click here for full text details

CERS HAZ WASTE **S121788523**
CERS **N/A**

E23
WNW
< 1/8
0.085 mi.
447 ft.

Relative:
Lower

PONZINI'S COMMUNITY GARAGE
19190 MONTEREY RD
MORGAN HILL, CA 95037

Click here for full text details

CUPA Listings **S112346478**
N/A

E24
WNW
< 1/8
0.116 mi.
613 ft.

Relative:
Lower

STEPHEN PENA
19220 MONTEREY HWY
MORGAN HILL, CA 95037

Click here for full text details

HAZNET
GEPAID CAC002561074

HAZNET **S112927441**
HWTS **N/A**

25
NNE
1/8-1/4
0.154 mi.
815 ft.

Relative:
Higher

DAVE VINCENT
330 PEEBLES AVE
MORGAN HILL, CA 95037

Click here for full text details

HWTS **S124626163**
N/A

F26
WNW
1/8-1/4
0.155 mi.
819 ft.

Relative:
Lower

SOTELO BROS FORKLIFT INC
19280 NORTH MONTEREY RD
MORGAN HILL, CA 95037

HAZNET **S113038288**
HWTS **N/A**

Click here for full text details

HAZNET
GEPAID CAL000041552

F27
WNW
1/8-1/4
0.155 mi.
819 ft.

Relative:
Lower

SUPERIOR AUTOMOTIVE & RADIATOR SERVICES
19280 N MONTEREY RD
MORGAN HILL, CA 95037

HAZNET **S113125323**
HWTS **N/A**

Click here for full text details

HAZNET
GEPAID CAL000267443

F28
WNW
1/8-1/4
0.155 mi.
819 ft.

Relative:
Lower

SUPERIOR AUTOMOTIVE & RADIATOR SERV
19280 MONTEREY HY
MORGAN HILL, CA 95037

CERS HAZ WASTE **S103988515**
CUPA Listings **N/A**
CERS

Click here for full text details

G29
SE
1/8-1/4
0.172 mi.
906 ft.

Relative:
Higher

SIERRA BIOSOURCE
260 COCHRANE CIRCLE #E
MORGAN HILL, CA 95037

HWTS **S124810514**
N/A

Click here for full text details

G30
SE
1/8-1/4
0.172 mi.
906 ft.

Relative:
Higher

CELLIANCE
260 COCHRANE CIR
MORGAN HILL, CA 95037

HAZNET **S113138322**
HWTS **N/A**

Click here for full text details

HAZNET
GEPAID CAL000296785

G31
SE
1/8-1/4
0.172 mi.
906 ft.

Relative:
Higher

ARAGEN BIOSCIENCE INC
260 COCHRANE CIR STE E
MORGAN HILL, CA 95037

RCRA NonGen / NLR **1024816512**
CAL000318016

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000318016

G32
SE
1/8-1/4
0.172 mi.
906 ft.

Relative:
Higher

ARAGEN BIOSCIENCE INC.
260 COCHRANE CIR
MORGAN HILL, CA 95037

CERS HAZ WASTE **S121766245**
CERS **N/A**

Click here for full text details

G33
SE
1/8-1/4
0.172 mi.
906 ft.

Relative:
Higher

ARAGEN BIOSCIENCE INC
260 COCHRANE CIR STE E
MORGAN HILL, CA 95037

HAZNET **S113146947**
HWTS **N/A**

Click here for full text details

HAZNET
GEPAID CAL000318016

34
ESE
1/8-1/4
0.173 mi.
916 ft.

Relative:
Higher

ALLWIN21 CORP
220 COCHRANE CL
MORGAN HILL, CA 95037

CUPA Listings **S121287960**
N/A

Click here for full text details

F35
NW
1/8-1/4
0.186 mi.
981 ft.

Relative:
Lower

SUPERIOR AUTOMOTIVE & RV
19280 MONTEREY ST
MORGAN HILL, CA 95037

HWTS **S124908157**
N/A

Click here for full text details

F36
NW
1/8-1/4
0.186 mi.
981 ft.

Relative:
Lower

SUPERIOR AUTOMOTIVE & RV
19280 MONTEREY ST
MORGAN HILL, CA 95037

RCRA NonGen / NLR **1024853570**
CAL000413527

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000413527

G37
ESE
1/8-1/4
0.192 mi.
1014 ft.

Relative:
Higher

CIDCO INC.
220 COCHRANE CIR
MORGAN HILL, CA 95037

HAZNET **S113067989**
HWTS **N/A**

Click here for full text details

HAZNET
GEPAID CAL000120905

G38
SE
1/8-1/4
0.193 mi.
1017 ft.

Relative:
Higher

DEPRESSURIZED TECHNOLOGIES INT
335 COCHRANE CIRCLE
MORGAN HILL, CA 95037

RCRA-SQG **1000820468**
FINDS **CAD983665068**
ECHO
HAZNET
ICE
HWP
CERS
HWTS

Click here for full text details

RCRA-SQG
EPA Id CAD983665068

FINDS
Registry ID: 110000785561

ECHO
Registry ID 110000785561

HAZNET
GEPAID CAC002900737

HWP
EPA Id CAD983665068
Cleanup Status CLOSED

G39
SE
1/8-1/4
0.193 mi.
1017 ft.

Relative:
Higher

DEPRESSURIZED TECHNOLOGIES INT
335 COCHRANE CIR
MORGAN HILL, CA 95037

Click here for full text details

HAZNET
GEPAID CAD983665068

HAZNET **S113019320**
HWTS **N/A**

G40
ESE
1/8-1/4
0.194 mi.
1025 ft.

Relative:
Higher

ARAGEN BIOSCIENCES
260 COCHRANE CL STE E
MORGAN HILL, CA 95037

Click here for full text details

CUPA Listings **S118289249**
N/A

H41
SE
1/8-1/4
0.203 mi.
1071 ft.

Relative:
Higher

AMTECH MICROELECTRONICS INC
485 COCHRANE CIR
MORGAN HILL, CA 95037

Click here for full text details

HAZNET
GEPAID CAL000407678

CERS HAZ WASTE **S118167708**
CUPA Listings **N/A**
HAZNET
HWTS

H42
SE
1/8-1/4
0.203 mi.
1071 ft.

Relative:
Higher

AMTECH MICROELECTRONICS INC
485 COCHRANE CIR
MORGAN HILL, CA 95037

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000407678

RCRA NonGen / NLR **1024850266**
CAL000407678

I43
NNE
1/8-1/4
0.203 mi.
1073 ft.

Relative:
Higher

COLOMBINI ALBERT J ELENA B
350 PEEBLES AVENUE
MORGAN HILL, CA 95037

Click here for full text details

HIST UST
Facility Id 00000021417

HIST UST **U001601525**
N/A

G44
ESE
1/8-1/4
0.222 mi.
1170 ft.

Relative:
Higher

DIE TECH
225 COCHRANE CIR CTE A
MORGAN HILL, CA 95037

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000429552

Database(s): RCRA NonGen / NLR
EDR ID Number: 1024861087
EPA ID Number: CAL000429552

G45
ESE
1/8-1/4
0.222 mi.
1170 ft.

Relative:
Higher

MICMAR INC
225 COCHRANE CIR UNIT B
MORGAN HILL, CA 95037

Click here for full text details

Database(s): HWTS
EDR ID Number: S124920267
EPA ID Number: N/A

G46
ESE
1/8-1/4
0.222 mi.
1170 ft.

Relative:
Higher

DIE TECH
225 COCHRANE CIR CTE A
MORGAN HILL, CA 95037

Click here for full text details

Database(s): HWTS
EDR ID Number: S124917465
EPA ID Number: N/A

G47
ESE
1/8-1/4
0.222 mi.
1170 ft.

Relative:
Higher

MICMAR INC
225 COCHRANE CIR UNIT B
MORGAN HILL, CA 95037

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000433137

Database(s): RCRA NonGen / NLR
EDR ID Number: 1024864575
EPA ID Number: CAL000433137

48
South
1/8-1/4
0.225 mi.
1186 ft.

Relative:
Higher

WARREN COX
125 CAMPOLI LN
MORGAN HILL, CA 95037

Click here for full text details

Database(s): HWTS
EDR ID Number: S124570073
EPA ID Number: N/A

49
ESE
1/8-1/4
0.225 mi.
1187 ft.

Relative:
Higher

OZUNA FOOD PRODUCTS CORP.
180 COCHRANE CIR
MORGAN HILL, CA 95037

Click here for full text details

CERS HAZ WASTE
CERS

S124438441
N/A

I50
NNE
1/8-1/4
0.244 mi.
1287 ft.

Relative:
Higher

G E WOLFE CONSTRUCTION INC
395 PEEBLES AVE
MORGAN HILL, CA 95037

Click here for full text details

HWTS

S124940109
N/A

I51
NNE
1/8-1/4
0.244 mi.
1287 ft.

Relative:
Higher

GE WOLFE CONSTRUCTION
395 PEEBLES AV
MORGAN HILL, CA 95037

Click here for full text details

CUPA Listings

S121468874
N/A

I52
NNE
1/8-1/4
0.244 mi.
1287 ft.

Relative:
Higher

GE WOLFE CONSTRUCTION INC
395 PEEBLES AVE
MORGAN HILL, CA 95037

Click here for full text details

HWTS

S124824256
N/A

I53
NNE
1/8-1/4
0.244 mi.
1287 ft.

Relative:
Higher

1X G E WOLFE CONSTRUCTION INC
395 PEEBLES AVE
MORGAN HILL, CA 95037

Click here for full text details

HWTS

S124541276
N/A

J54
NW
1/8-1/4
0.247 mi.
1303 ft.

Relative:
Lower

STOCKDALES HOT ROD PAINT
19380 MONTEREY ST
MORGAN HILL, CA 95037

Click here for full text details

HAZNET
GEPAID CAL000360467

HAZNET
HWTS

S113161035
N/A

J55
NW
1/8-1/4
0.247 mi.
1303 ft.

Relative:
Lower

FAMILY RV
19380 MONTEREY ST
MORGAN HILL, CA 95037

Click here for full text details

HWTS **S124898849**
N/A

J56
NW
1/8-1/4
0.247 mi.
1303 ft.

Relative:
Lower

FAMILY ADVENTURES RV INC
19380 MONTEREY ST
MORGAN HILL, CA 95037

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000399995

RCRA NonGen / NLR **1024846177**
CAL000399995

J57
NW
1/8-1/4
0.247 mi.
1303 ft.

Relative:
Lower

FAMILY ADVENTURES RV INC
19380 MONTEREY ST
MORGAN HILL, CA 95037

Click here for full text details

CERS HAZ WASTE **S113167899**
CUPA Listings **N/A**
CERS
HWTS

J58
NW
1/8-1/4
0.247 mi.
1303 ft.

Relative:
Lower

ALPINE RECREATION
19380 MONTEREY ST
MORGAN HILL, CA 95037

Click here for full text details

HAZNET
GEPAID CAL922843051

HAZNET **S123636293**
HWTS **N/A**

K59
NW
1/4-1/2
0.332 mi.
1752 ft.

Relative:
Lower

IRISH CONSTRUCTION
19490 MONTEREY ST
MORGAN HILL, CA 95037

Click here for full text details

LUST **S103972181**
CERS HAZ WASTE **N/A**
SWEEPS UST
CUPA Listings
HIST CORTESE
CERS
HWTS

LUST
Status Completed - Case Closed
Global Id T0608502025

SWEEPS UST
Status A
Tank Status A
Comp Number 1658

IRISH CONSTRUCTION (Continued) **S103972181**

HIST CORTESE
Reg Id 43-2207

K60 **COCHRANE PLAZA CHEVROLET** **LUST** **S103177418**
NW **19490 MONTEREY RD** **HIST LUST** **N/A**
1/4-1/2 **UNINCORPORATED, CA 95037**
0.342 mi.
1804 ft.

Relative:
Lower

Click here for full text details

LUST
Facility Status Case Closed
date9 1/15/1998

HIST LUST
SCVWD ID 09S3E17E01

L61 **MADRONE LAND CORPORATION** **CPS-SLIC** **S106235223**
East **645 COCHRANE ROAD** **N/A**
1/4-1/2 **MORGAN HILL, CA**
0.436 mi.
2303 ft.

Relative:
Higher

Click here for full text details

CPS-SLIC
Facility Id SL20274892

L62 **MADRONE LAND CORP./SAN JO** **ENVIROSTOR** **S101482285**
East **645 COCHRANE** **CPS-SLIC** **N/A**
1/4-1/2 **MORGAN HILL, CA 95037** **DEED**
0.436 mi. **HIST CORTESE**
2303 ft. **CERS**

Relative:
Higher

Click here for full text details

ENVIROSTOR
Facility Id 43010016
Status Refer: RWQCB

CPS-SLIC
Facility Status Completed - Case Closed
Global Id SL20274892

Click here to access the California GeoTracker records for this facility

DEED
Envirostor ID SL20274892
Status COMPLETED - CASE CLOSED

HIST CORTESE

MADRONE LAND CORP./SAN JO (Continued) **S101482285**

Reg Id 43010016

63
ESE
1/2-1
0.622 mi.
3284 ft.

Relative:
Higher

TORAY ADVANCED COMPOSITES **RCRA-LQG** **1001959809**
18410 BUTTERFIELD BLVD **ENVIROSTOR** **CAR000064659**
MORGAN HILL, CA 95037 **WDS**

Click here for full text details

RCRA-LQG
EPA Id CAR000064659

ENVIROSTOR
Facility Id 71004096
Status Inactive - Needs Evaluation

WDS
Facility Id 3 43I015752
Facility Status Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.

64
East
1/2-1
0.708 mi.
3738 ft.

Relative:
Higher

PHOTOTEK **RCRA-SQG** **1001115570**
18450 SUTTER BLVD **ENVIROSTOR** **CAR000015065**
MORGAN HILL, CA 95037 **HAZNET**
HWTS

Click here for full text details

RCRA-SQG
EPA Id CAR000015065

ENVIROSTOR
Facility Id 71003458
Status Inactive - Needs Evaluation

HAZNET
GEPAID CAR000015065

65
North
1/2-1
0.724 mi.
3823 ft.

Relative:
Higher

NEW MORGAN HILL HIGH SCHOOL **ENVIROSTOR** **S105628970**
BURNETT AVENUE **SCH** **N/A**
MORGAN HILL, CA 95037

Click here for full text details

ENVIROSTOR
Facility Id 43010029
Status Certified

SCH
Facility Id 43010029

NEW MORGAN HILL HIGH SCHOOL (Continued) **S105628970**

Status Certified

66
NW
1/2-1
0.801 mi.
4227 ft.

Relative:
Lower

ANN SOBRATO HIGH SCHOOL
11230 MONTEREY HIGHWAY
SAN JOSE, CA 95037

ENVIROSTOR
LUST
SCH
CERS

S107735846
N/A

Click here for full text details

ENVIROSTOR
Facility Id 43010024
Status No Further Action

LUST
Status Completed - Case Closed
Global Id T0608598193

SCH
Facility Id 43010024
Status No Further Action

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	AST	Aboveground Petroleum Storage Tank Facilities	California Environmental Protection Agency	07/06/2016	07/12/2016	09/19/2016
CA	BROWNFIELDS	Considered Brownfieds Sites Listing	State Water Resources Control Board	12/18/2019	12/19/2019	02/19/2020
CA	CA BOND EXP. PLAN	Bond Expenditure Plan	Department of Health Services	01/01/1989	07/27/1994	08/02/1994
CA	CA FID UST	Facility Inventory Database	California Environmental Protection Agency	10/31/1994	09/05/1995	09/29/1995
CA	CDL	Clandestine Drug Labs	Department of Toxic Substances Control	06/30/2018	07/16/2019	09/24/2019
CA	CERS	CalEPA Regulated Site Portal Data	California Environmental Protection Agency	10/21/2019	10/22/2019	01/03/2020
CA	CERS HAZ WASTE	CERS HAZ WASTE	CalEPA	10/21/2019	10/22/2019	01/02/2020
CA	CERS TANKS	California Environmental Reporting System (CERS) Tanks	California Environmental Protection Agency	10/21/2019	10/22/2019	01/03/2020
CA	CHMIRS	California Hazardous Material Incident Report System	Office of Emergency Services	05/15/2019	06/24/2019	08/21/2019
CA	CIWQS	California Integrated Water Quality System	State Water Resources Control Board	12/03/2019	12/04/2019	02/04/2020
CA	CORTESE	"Cortese" Hazardous Waste & Substances Sites List	CAL EPA/Office of Emergency Information	12/18/2019	12/20/2019	02/20/2020
CA	CPS-SLIC	Statewide SLIC Cases (GEOTRACKER)	State Water Resources Control Board	12/09/2019	12/10/2019	02/18/2020
CA	CUPA LIVERMORE-PLEASANTON	CUPA Facility Listing	Livermore-Pleasanton Fire Department	05/01/2019	05/14/2019	07/17/2019
CA	CUPA SAN FRANCISCO CO	CUPA Facility Listing	San Francisco County Department of Environmen	10/31/2019	11/01/2019	12/11/2019
CA	DEED	Deed Restriction Listing	DTSC and SWRCB	12/03/2019	12/04/2019	02/04/2020
CA	DRYCLEAN AVAQMD	Antelope Valley Air Quality Management District Drycleaner L	Antelope Valley Air Quality Management Distri	12/02/2019	12/03/2019	02/04/2020
CA	DRYCLEAN SOUTH COAST	South Coast Air Quality Management District Drycleaner Listi	South Coast Air Quality Management District	09/27/2019	10/01/2019	11/07/2019
CA	DRYCLEANERS	Cleaner Facilities	Department of Toxic Substance Control	09/06/2019	10/11/2019	12/12/2019
CA	EMI	Emissions Inventory Data	California Air Resources Board	12/31/2017	06/24/2019	08/22/2019
CA	ENF	Enforcement Action Listing	State Water Resoruces Control Board	07/19/2019	07/22/2019	09/26/2019
CA	ENVIROSTOR	EnviroStor Database	Department of Toxic Substances Control	10/28/2019	10/29/2019	01/07/2020
CA	Financial Assurance 1	Financial Assurance Information Listing	Department of Toxic Substances Control	10/17/2019	10/22/2019	01/02/2020
CA	Financial Assurance 2	Financial Assurance Information Listing	California Integrated Waste Management Board	11/08/2019	11/12/2019	01/08/2020
CA	HAULERS	Registered Waste Tire Haulers Listing	Integrated Waste Management Board	11/15/2019	11/15/2019	01/23/2020
CA	HAZNET	Facility and Manifest Data	California Environmental Protection Agency	12/31/2017	05/29/2019	07/22/2019
CA	HIST CAL-SITES	Calsites Database	Department of Toxic Substance Control	08/08/2005	08/03/2006	08/24/2006
CA	HIST CORTESE	Hazardous Waste & Substance Site List	Department of Toxic Substances Control	04/01/2001	01/22/2009	04/08/2009
CA	HIST UST	Hazardous Substance Storage Container Database	State Water Resources Control Board	10/15/1990	01/25/1991	02/12/1991
CA	HWP	EnviroStor Permitted Facilities Listing	Department of Toxic Substances Control	11/18/2019	11/19/2019	01/23/2020
CA	HWT	Registered Hazardous Waste Transporter Database	Department of Toxic Substances Control	10/07/2019	10/08/2019	11/07/2019
CA	HWTS	Hazardous Waste Tracking System	-> Agency name here.	10/15/2019	11/14/2019	02/07/2020
CA	ICE	ICE	Department of Toxic Subsances Control	11/18/2019	11/19/2019	01/23/2020
CA	LDS	Land Disposal Sites Listing (GEOTRACKER)	State Water Qualilty Control Board	12/09/2019	12/10/2019	02/14/2020
CA	LIENS	Environmental Liens Listing	Department of Toxic Substances Control	12/02/2019	12/04/2019	02/04/2020
CA	LUST	Leaking Underground Fuel Tank Report (GEOTRACKER)	State Water Resources Control Board	12/09/2019	12/10/2019	02/14/2020
CA	LUST REG 1	Active Toxic Site Investigation	California Regional Water Quality Control Boa	02/01/2001	02/28/2001	03/29/2001
CA	LUST REG 2	Fuel Leak List	California Regional Water Quality Control Boa	09/30/2004	10/20/2004	11/19/2004
CA	LUST REG 3	Leaking Underground Storage Tank Database	California Regional Water Quality Control Boa	05/19/2003	05/19/2003	06/02/2003
CA	LUST REG 4	Underground Storage Tank Leak List	California Regional Water Quality Control Boa	09/07/2004	09/07/2004	10/12/2004
CA	LUST REG 5	Leaking Underground Storage Tank Database	California Regional Water Quality Control Boa	07/01/2008	07/22/2008	07/31/2008
CA	LUST REG 6L	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	09/09/2003	09/10/2003	10/07/2003
CA	LUST REG 6V	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	06/07/2005	06/07/2005	06/29/2005
CA	LUST REG 7	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	02/26/2004	02/26/2004	03/24/2004
CA	LUST REG 8	Leaking Underground Storage Tanks	California Regional Water Quality Control Boa	02/14/2005	02/15/2005	03/28/2005
CA	LUST REG 9	Leaking Underground Storage Tank Report	California Regional Water Quality Control Boa	03/01/2001	04/23/2001	05/21/2001
CA	MCS	Military Cleanup Sites Listing (GEOTRACKER)	State Water Resources Control Board	12/09/2019	12/10/2019	02/18/2020
CA	MILITARY PRIV SITES	Military Privatized Sites (GEOTRACKER)	State Water Resources Control Board	12/09/2019	12/10/2019	02/18/2020

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	MILITARY UST SITES	Military UST Sites (GEOTRACKER)	State Water Resources Control Board	12/09/2019	12/10/2019	02/18/2020
CA	MINES	Mines Site Location Listing	Department of Conservation	12/09/2019	12/10/2019	02/24/2020
CA	MWMP	Medical Waste Management Program Listing	Department of Public Health	11/22/2019	12/04/2019	02/04/2020
CA	NON-CASE INFO	Non-Case Information Sites (GEOTRACKER)	State Water Resources Control Board	12/09/2019	12/10/2019	02/18/2020
CA	NOTIFY 65	Proposition 65 Records	State Water Resources Control Board	12/11/2019	12/12/2019	02/21/2020
CA	NPDES	NPDES Permits Listing	State Water Resources Control Board	11/11/2019	11/12/2019	01/08/2020
CA	OTHER OIL GAS	Other Oil & Gas Projects Sites (GEOTRACKER)	State Water Resources Control Board	12/09/2019	12/10/2019	02/18/2020
CA	PEST LIC	Pesticide Regulation Licenses Listing	Department of Pesticide Regulation	12/03/2019	12/04/2019	02/04/2020
CA	PFAS	PFAS Contamination Site Location Listing	State Water Resources Control Board	12/09/2019	12/10/2019	02/19/2020
CA	PROC	Certified Processors Database	Department of Conservation	12/09/2019	12/10/2019	02/19/2020
CA	PROD WATER PONDS	Produced Water Ponds Sites (GEOTRACKER)	State Water Resources Control Board	12/09/2019	12/10/2019	02/18/2020
CA	PROJECT	Project Sites (GEOTRACKER)	State Water Resources Control Board	12/09/2019	12/10/2019	02/18/2020
CA	RESPONSE	State Response Sites	Department of Toxic Substances Control	10/28/2019	10/29/2019	01/07/2020
CA	RGA LF	Recovered Government Archive Solid Waste Facilities List	Department of Resources Recycling and Recover		07/01/2013	01/13/2014
CA	RGA LUST	Recovered Government Archive Leaking Underground Storage Tan	State Water Resources Control Board		07/01/2013	12/30/2013
CA	SAMPLING POINT	Sampling Point ? Public Sites (GEOTRACKER)	State Water Resources Control Board	12/09/2019	12/10/2019	02/18/2020
CA	SAN FRANCISCO AST	Aboveground Storage Tank Site Listing	San Francisco County Department of Public Hea	08/01/2019	08/02/2019	10/11/2019
CA	SCH	School Property Evaluation Program	Department of Toxic Substances Control	10/28/2019	10/29/2019	01/07/2020
CA	SLIC REG 1	Active Toxic Site Investigations	California Regional Water Quality Control Boa	04/03/2003	04/07/2003	04/25/2003
CA	SLIC REG 2	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board San Fran	09/30/2004	10/20/2004	11/19/2004
CA	SLIC REG 3	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	05/18/2006	05/18/2006	06/15/2006
CA	SLIC REG 4	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Region Water Quality Control Board Los Angele	11/17/2004	11/18/2004	01/04/2005
CA	SLIC REG 5	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board Central	04/01/2005	04/05/2005	04/21/2005
CA	SLIC REG 6L	SLIC Sites	California Regional Water Quality Control Boa	09/07/2004	09/07/2004	10/12/2004
CA	SLIC REG 6V	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board, Victorv	05/24/2005	05/25/2005	06/16/2005
CA	SLIC REG 7	SLIC List	California Regional Quality Control Board, Co	11/24/2004	11/29/2004	01/04/2005
CA	SLIC REG 8	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Region Water Quality Control Board	04/03/2008	04/03/2008	04/14/2008
CA	SLIC REG 9	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	09/10/2007	09/11/2007	09/28/2007
CA	SPILLS 90	SPILLS90 data from FirstSearch	FirstSearch	06/06/2012	01/03/2013	02/22/2013
CA	SWEEPS UST	SWEEPS UST Listing	State Water Resources Control Board	06/01/1994	07/07/2005	08/11/2005
CA	SWF/LF (SWIS)	Solid Waste Information System	Department of Resources Recycling and Recover	11/11/2019	11/12/2019	01/08/2020
CA	SWRCY	Recycler Database	Department of Conservation	12/09/2019	12/10/2019	02/19/2020
CA	TOXIC PITS	Toxic Pits Cleanup Act Sites	State Water Resources Control Board	07/01/1995	08/30/1995	09/26/1995
CA	UIC	UIC Listing	Deaprtment of Conservation	12/06/2019	12/10/2019	02/19/2020
CA	UIC GEO	Underground Injection Control Sites (GEOTRACKER)	State Water Resource Control Board	12/09/2019	12/10/2019	02/18/2020
CA	UST	Active UST Facilities	SWRCB	12/09/2019	12/10/2019	02/21/2020
CA	UST CLOSURE	Proposed Closure of Underground Storage Tank (UST) Cases	State Water Resources Control Board	12/06/2019	12/10/2019	02/25/2020
CA	UST MENDOCINO	Mendocino County UST Database	Department of Public Health	12/19/2019	12/23/2019	02/21/2020
CA	VCP	Voluntary Cleanup Program Properties	Department of Toxic Substances Control	10/28/2019	10/29/2019	01/07/2020
CA	WASTEWATER PITS	Oil Wastewater Pits Listing	RWQCB, Central Valley Region	05/08/2018	07/11/2018	09/13/2018
CA	WDR	Waste Discharge Requirements Listing	State Water Resources Control Board	12/09/2019	12/10/2019	02/19/2020
CA	WDS	Waste Discharge System	State Water Resources Control Board	06/19/2007	06/20/2007	06/29/2007
CA	WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)	State Water Resources Control Board	12/09/2019	12/10/2019	02/18/2020
CA	WIP	Well Investigation Program Case List	Los Angeles Water Quality Control Board	07/03/2009	07/21/2009	08/03/2009
CA	WMUDS/SWAT	Waste Management Unit Database	State Water Resources Control Board	04/01/2000	04/10/2000	05/10/2000
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	09/30/2017	05/08/2018	07/20/2018
US	ABANDONED MINES	Abandoned Mines	Department of Interior	09/10/2019	09/10/2019	10/17/2019

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	BRS	Biennial Reporting System	EPA/NTIS	12/31/2015	02/22/2017	09/28/2017
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2018	12/04/2019	01/15/2020
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	01/12/2017	03/05/2019	11/11/2019
US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	09/30/2019	10/09/2019	12/20/2019
US	CORRACTS	Corrective Action Report	EPA	12/16/2019	12/16/2019	12/20/2019
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	05/31/2018	07/26/2018	10/05/2018
US	DOD	Department of Defense Sites	USGS	12/31/2005	11/10/2006	01/11/2007
US	DOT OPS	Incident and Accident Data	Department of Transporation, Office of Pipeli	10/01/2019	10/29/2019	01/15/2020
US	Delisted NPL	National Priority List Deletions	EPA	01/30/2020	02/05/2020	02/14/2020
US	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	10/06/2019	10/08/2019	01/02/2020
US	EDR Hist Auto	EDR Exclusive Historical Auto Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historical Cleaners	EDR, Inc.			
US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	ERNS	Emergency Response Notification System	National Response Center, United States Coast	09/09/2019	09/09/2019	09/23/2019
US	FEDERAL FACILITY	Federal Facility Site Information listing	Environmental Protection Agency	04/03/2019	04/05/2019	05/14/2019
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	04/02/2018	04/11/2018	11/06/2019
US	FEMA UST	Underground Storage Tank Listing	FEMA	08/27/2019	08/28/2019	11/11/2019
US	FINDS	Facility Index System/Facility Registry System	EPA	08/12/2019	09/04/2019	12/03/2019
US	FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009
US	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	11/12/2019	11/19/2019	01/28/2020
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	11/18/2019	11/19/2019	01/28/2020
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	08/08/2017	09/11/2018	09/14/2018
US	HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	12/05/2019	12/06/2019	02/14/2020
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Serivces, Indian	04/01/2014	08/06/2014	01/29/2015
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	10/01/2019	12/04/2019	02/10/2020
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	10/11/2019	12/04/2019	02/10/2020
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	10/10/2019	12/05/2019	02/10/2020
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	10/01/2019	12/04/2019	02/10/2020
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	10/02/2019	12/04/2019	02/10/2020
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	10/15/2019	12/17/2019	02/10/2020
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	10/03/2019	12/04/2019	02/14/2020
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	04/08/2019	07/29/2019	10/17/2019
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	10/01/2019	12/04/2019	02/10/2020
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	10/11/2019	12/04/2019	02/10/2020
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	10/10/2019	12/05/2019	02/10/2020
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	10/01/2019	12/04/2019	02/10/2020
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	10/02/2019	12/04/2019	02/10/2020
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	10/11/2019	12/04/2019	02/10/2020
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	10/03/2019	12/04/2019	02/14/2020

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	04/08/2019	07/29/2019	10/17/2019
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016
US	INDIAN VCP R7	Voluntary Cleanup Priority Lisitng	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	01/30/2020	02/05/2020	02/14/2020
US	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	01/30/2020	02/05/2020	02/14/2020
US	LUCIS	Land Use Control Information System	Department of the Navy	11/04/2019	11/13/2019	01/28/2020
US	MINES MRDS	Mineral Resources Data System	USGS	04/06/2018	10/21/2019	10/24/2019
US	MINES VIOLATIONS	MSHA Violation Assessment Data	DOL, Mine Safety & Health Admi	12/03/2019	12/03/2019	01/28/2020
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	10/25/2019	10/25/2019	01/15/2020
US	NPL	National Priority List	EPA	01/30/2020	02/05/2020	02/14/2020
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	PADS	PCB Activity Database System	EPA	10/09/2019	10/11/2019	12/20/2019
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	09/13/2019	11/06/2019	02/10/2020
US	PRP	Potentially Responsible Parties	EPA	01/30/2020	02/06/2020	02/14/2020
US	Proposed NPL	Proposed National Priority List Sites	EPA	01/30/2020	02/05/2020	02/14/2020
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RADINFO	Radiation Information Database	Environmental Protection Agency	07/01/2019	07/01/2019	09/23/2019
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	12/16/2019	12/16/2019	12/20/2019
US	RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	12/16/2019	12/16/2019	12/20/2019
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	12/16/2019	12/16/2019	12/20/2019
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	12/16/2019	12/16/2019	12/20/2019
US	RCRA-VSQG	RCRA - Very Small Quantity Generators (Formerly Conditionall	Environmental Protection Agency	12/16/2019	12/16/2019	12/20/2019
US	RMP	Risk Management Plans	Environmental Protection Agency	04/25/2019	05/02/2019	05/23/2019
US	ROD	Records Of Decision	EPA	01/30/2020	02/05/2020	02/14/2020
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	01/01/2017	02/03/2017	04/07/2017
US	SEMS	Superfund Enterprise Management System	EPA	01/30/2020	02/05/2020	02/14/2020
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	01/30/2020	02/05/2020	02/14/2020
US	SSTS	Section 7 Tracking Systems	EPA	05/01/2019	10/23/2019	01/15/2020
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2017	11/16/2018	11/21/2019
US	TSCA	Toxic Substances Control Act	EPA	12/31/2016	06/21/2017	01/05/2018
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	08/30/2019	11/15/2019	01/28/2020
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (	EPA	10/12/2016	10/26/2016	02/03/2017
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	06/03/2019	06/04/2019	08/26/2019
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	06/11/2019	06/13/2019	09/03/2019
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	11/22/2019	11/22/2019	01/28/2020
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	09/23/2019	09/24/2019	12/20/2019
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	06/11/2019	06/13/2019	09/03/2019
US	US INST CONTROL	Sites with Institutional Controls	Environmental Protection Agency	11/22/2019	11/22/2019	01/28/2020
US	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	11/06/2019	11/25/2019	01/28/2020
US	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	12/05/2005	02/29/2008	04/18/2008
US	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	UXO	Unexploded Ordnance Sites	Department of Defense	12/31/2017	01/17/2019	04/01/2019

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CT	CT MANIFEST	Hazardous Waste Manifest Data	Department of Energy & Environmental Protecti	05/14/2019	12/05/2019	02/03/2020
NJ	NJ MANIFEST	Manifest Information	Department of Environmental Protection	12/31/2018	04/10/2019	05/16/2019
NY	NY MANIFEST	Facility and Manifest Data	Department of Environmental Conservation	01/01/2019	05/01/2019	06/21/2019
PA	PA MANIFEST	Manifest Information	Department of Environmental Protection	06/30/2018	07/19/2019	09/10/2019
RI	RI MANIFEST	Manifest information	Department of Environmental Management	12/31/2018	10/02/2019	12/10/2019
WI	WI MANIFEST	Manifest Information	Department of Natural Resources	05/31/2018	06/19/2019	09/03/2019
US	AHA Hospitals	Sensitive Receptor: AHA Hospitals	American Hospital Association, Inc.			
US	Medical Centers	Sensitive Receptor: Medical Centers	Centers for Medicare & Medicaid Services			
US	Nursing Homes	Sensitive Receptor: Nursing Homes	National Institutes of Health			
US	Public Schools	Sensitive Receptor: Public Schools	National Center for Education Statistics			
US	Private Schools	Sensitive Receptor: Private Schools	National Center for Education Statistics			
CA	Daycare Centers	Sensitive Receptor: Licensed Facilities	Department of Social Services			
US	Flood Zones	100-year and 500-year flood zones	Emergency Management Agency (FEMA)			
US	NWI	National Wetlands Inventory	U.S. Fish and Wildlife Service			
CA	State Wetlands	Wetland Inventory	Department of Fish and Wildlife			
US	Topographic Map		U.S. Geological Survey			
US	Oil/Gas Pipelines		Endeavor Business Media			
US	Electric Power Transmission Line Data		Endeavor Business Media			

STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

MONTEREY ROAD DEVELOPMENT
18960 MONTEREY ROAD
MORGAN HILL, CA 95037

TARGET PROPERTY COORDINATES

Latitude (North):	37.149818 - 37° 8' 59.34''
Longitude (West):	121.668759 - 121° 40' 7.53''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	618221.6
UTM Y (Meters):	4112118.2
Elevation:	353 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5640402 MORGAN HILL, 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).

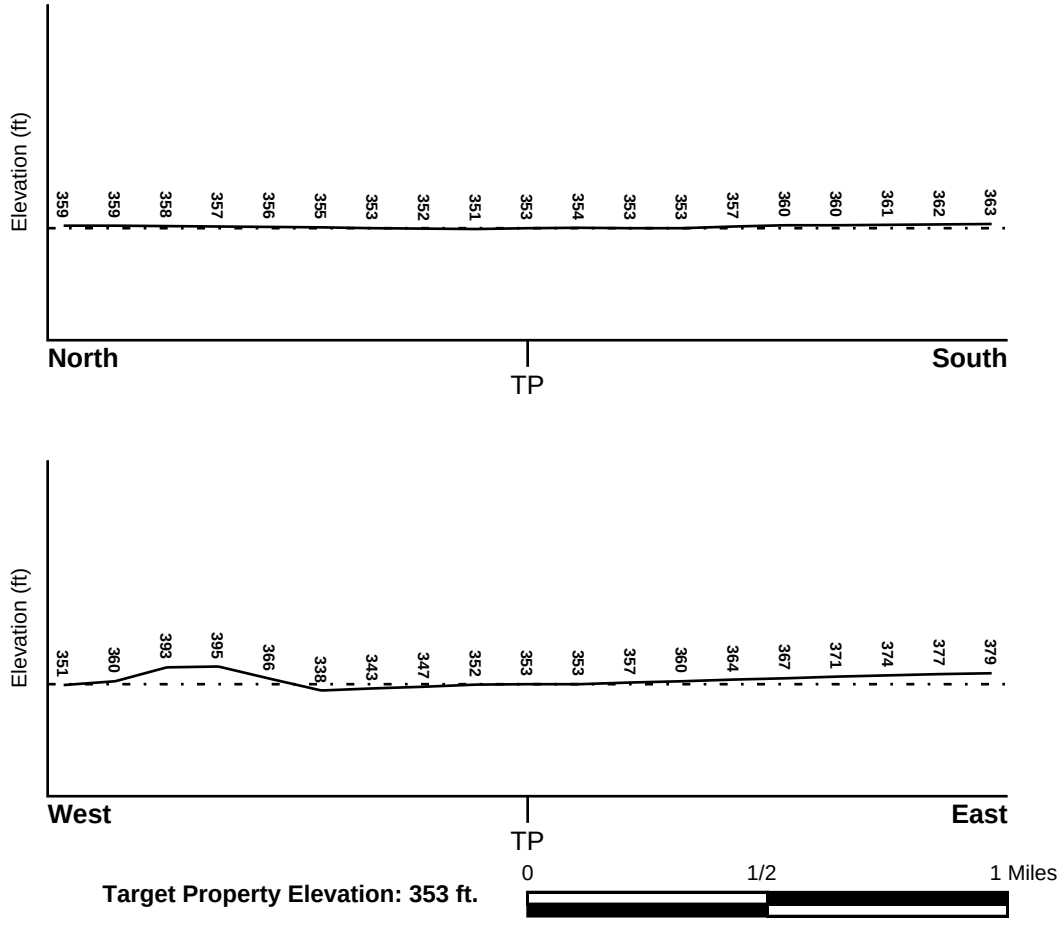
TOPOGRAPHIC INFORMATION

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 West

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



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
06085C0443H	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06085C0441H	FEMA FIRM Flood data
06085C0442H	FEMA FIRM Flood data
06085C0444H	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
MORGAN HILL	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

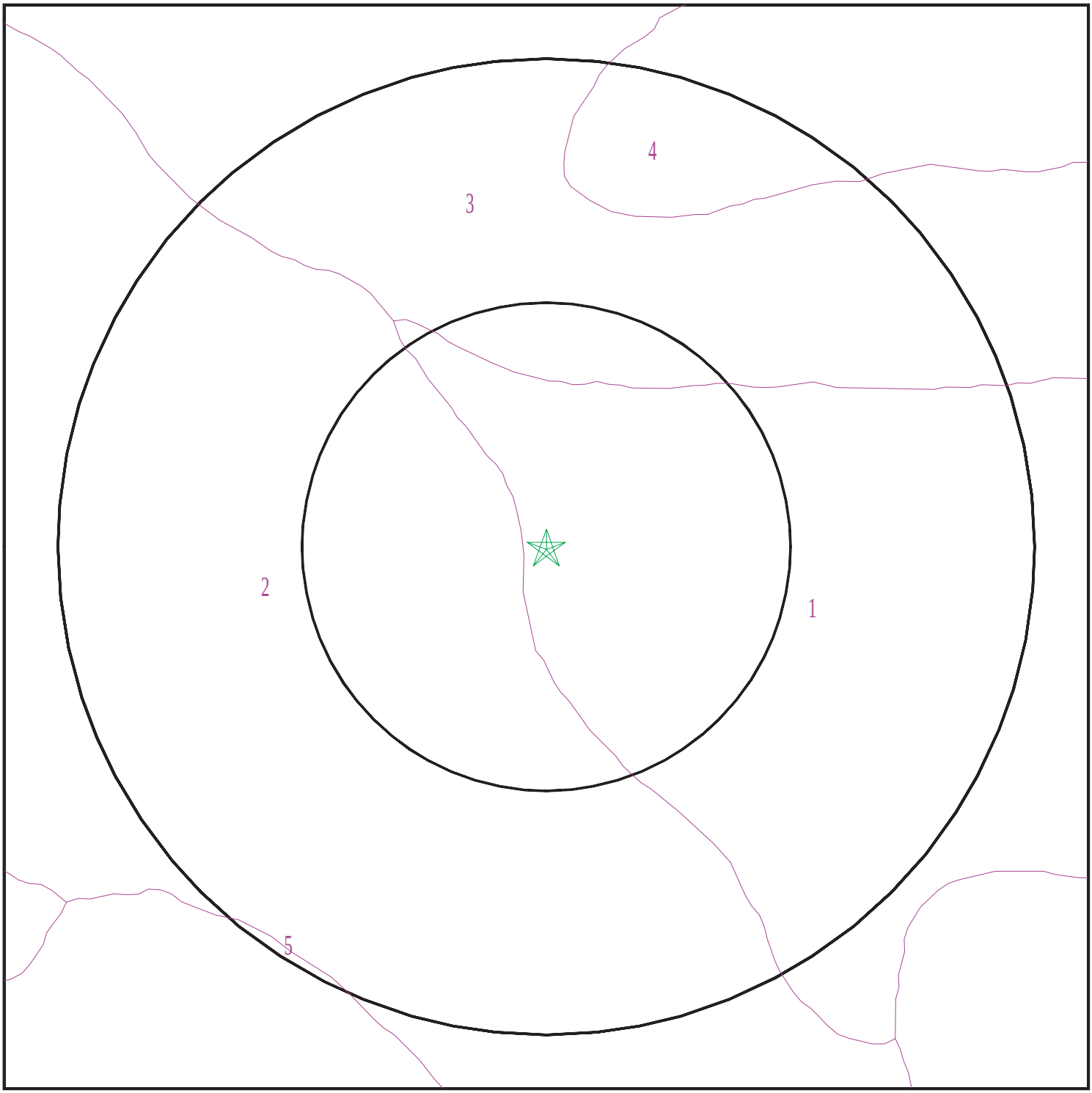
Era:	Mesozoic
System:	Cretaceous
Series:	Upper Mesozoic
Code:	uMze*(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Eugeosynclinal Deposits

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 - 5989310.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Monterey Road Development	CLIENT:	Earth Systems Pacific, Northern CA
ADDRESS:	18960 Monterey Road Morgan Hill CA 95037	CONTACT:	Brett Faust
LAT/LONG:	37.149818 / 121.668759	INQUIRY #:	5989310.2s
		DATE:	February 27, 2020 5:51 pm

Copyright © 2020 EDR, Inc. © 2015 TomTom Rel. 2015.

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: CORTINA

Soil Surface Texture: very gravelly loam

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 183 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	7 inches	very gravelly loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 42 Min: 14	Max: 6.5 Min: 6.1
2	7 inches	59 inches	sr to very gravelly sandy loam to very gravelly loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 42 Min: 14	Max: 6.5 Min: 6.1

Soil Map ID: 2

Soil Component Name: PLEASANTON

Soil Surface Texture: 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: Moderate

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	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: 7.3 Min: 6.1
2	18 inches	44 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: 7.3 Min: 6.1
3	44 inches	66 inches	gravelly sandy 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: 7.3 Min: 6.1

Soil Map ID: 3

Soil Component Name: ARBUCKLE

Soil Surface Texture: gravelly 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: Low

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	20 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6.5 Min: 6.2
2	20 inches	40 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6.5 Min: 6.2
3	40 inches	59 inches	very gravelly sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6.5 Min: 6.2

Soil Map ID: 4

Soil Component Name: SAN YSIDRO

Soil Surface Texture: loam

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: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 183 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	20 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
2	20 inches	35 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
3	35 inches	50 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
4	50 inches	59 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9

Soil Map ID: 5

Soil Component Name: Los Osos

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: Not 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	9 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0	Max: Min:
2	9 inches	35 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0	Max: Min:
3	35 inches	40 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0	Max: Min:

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

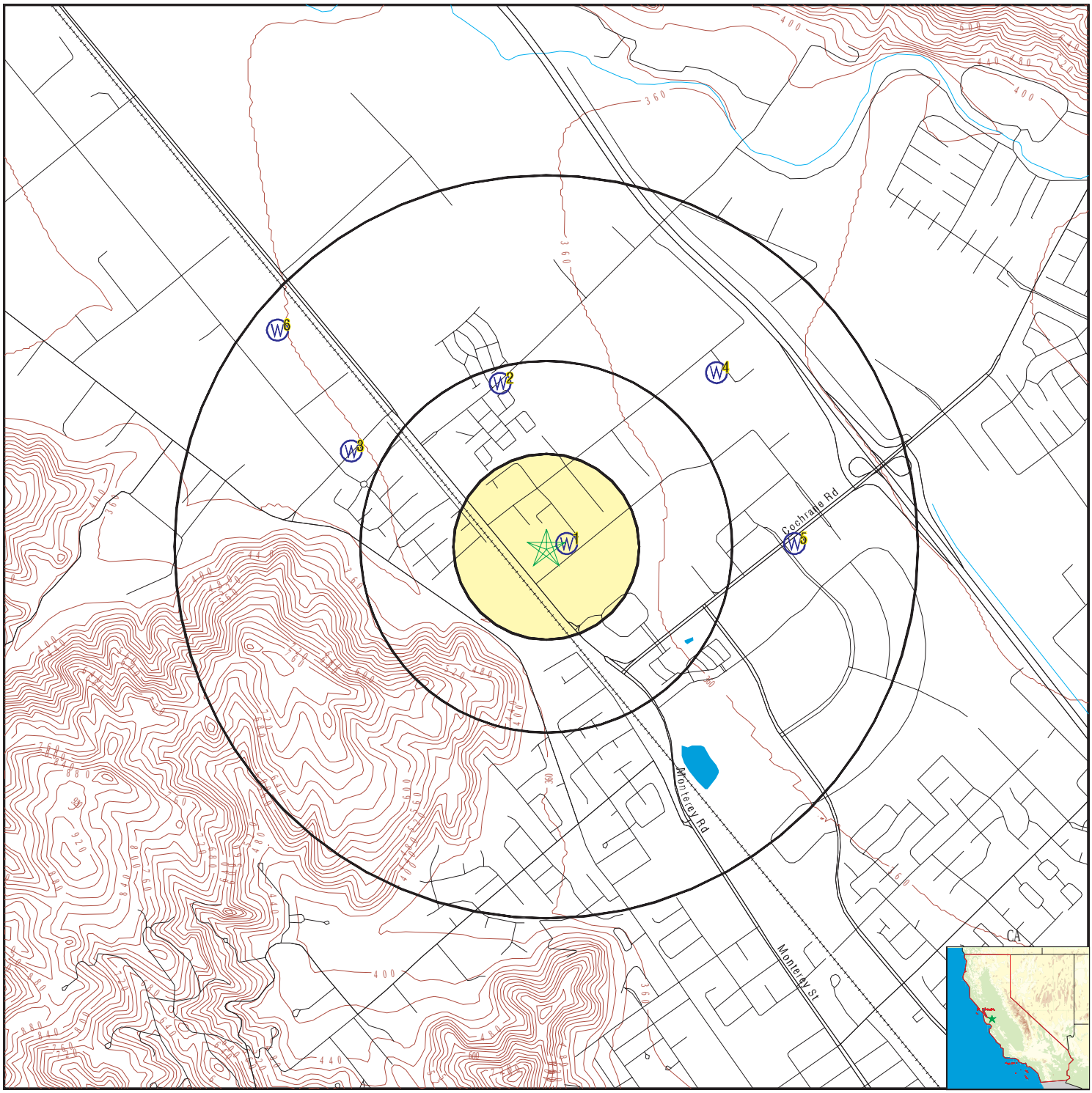
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	9383	0 - 1/8 Mile East
2	CADWR8000033105	1/4 - 1/2 Mile NNW
3	9385	1/2 - 1 Mile WNW
4	9382	1/2 - 1 Mile NE
5	9381	1/2 - 1 Mile East
6	9376	1/2 - 1 Mile NW

PHYSICAL SETTING SOURCE MAP - 5989310.2s



- 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:	Monterey Road Development	CLIENT:	Earth Systems Pacific, Northern CA
ADDRESS:	18960 Monterey Road Morgan Hill CA 95037	CONTACT:	Brett Faust
		INQUIRY #:	5989310.2s
LAT/LONG:	37.149818 / 121.668759	DATE:	February 27, 2020 5:51 pm

Copyright © 2020 EDR, Inc. © 2015 TomTom Rel. 2015.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
1 **East** **0 - 1/8 Mile** **Higher**	Click here for full text details	**CA WELLS**	**9383**
2 **NNW** **1/4 - 1/2 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADWR8000033105**
3 **WNW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**9385**
4 **NE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**9382**
5 **East** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**9381**
6 **NW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**9376**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
95037	21	0

Federal EPA Radon Zone for SANTA CLARA 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 Zip Code: 95037

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	-0.300 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

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.

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

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

APPENDIX F

LIEN AND ACTIVITY USE LIMITATION SEARCH REPORT

MONTEREY ROAD DEVELOPMENT
18960 MONTEREY ROAD
MORGAN HILL, CA 95037

Inquiry Number: 5989310.7S
FEBRUARY 27, 2020

EDR Environmental Lien and AUL Search

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Environmental Lien and AUL Search

The EDR Environmental Lien Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This report was prepared for the use of Environmental Data Resources, Inc., and AFX Research, LLC. (AFX) exclusively. This report is neither a guarantee of title, a commitment to insure, or a policy of title insurance. **NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WTH THIS REPORT**. Environmental Data Resources, Inc. (EDR) and AFX exclusively specifically disclaim the making of any such warranties, including without limitation, merchantability or fitness for a particular use or purpose. The information contained in this report is retrieved as it is recorded from the various agencies that make it available. The total liability is limited to the fee paid for this report.

Copyright 2016 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EDR Environmental Lien and AUL Search

TARGET PROPERTY INFORMATION

ADDRESS

MONTEREY ROAD DEVELOPMENT
18960 MONTEREY ROAD
MORGAN HILL, CA 95037

RESEARCH SOURCE

Source 1: SANTA CLARA COUNTY RECORDER'S OFFICE

Source 2: CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

Source 3: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

PROPERTY INFORMATION

Deed 1

Type of Deed:	DEED
Title is vested in:	THE WILLIAM AND LESLIE MINER REVOCABLE TRUST (60% INTEREST)
Title received from:	WILLIAM B. MINER, JR.
Date Executed:	04/16/2019
Date Recorded:	04/19/2019
Book:	NA
Page:	NA
Volume:	NA
Instrument#:	24160153
Docket:	NA
Land Record Comments:	NA
Miscellaneous Comments:	NA

Deed 2

Type of Deed:	DEED
Title is vested in:	WENDY ROUSH (4/7 OF 70%) AND TO WILLIAM B. MINER, JR. (3/7 OF 70%)
Title received from:	THE MINER FAMILY REVOCABLE LIVING TRUST (70% INTEREST)
Date Executed:	03/06/2014
Date Recorded:	03/07/2014
Book:	NA
Page:	NA
Volume:	NA
Instrument#:	22539020
Docket:	NA
Land Record Comments:	NA
Miscellaneous Comments:	NA

Deed 3

Type of Deed:	DEED
Title is vested in:	THE MINER FAMILY REVOCABLE TRUST (70% INTEREST)
Title received from:	WILLIAM B. MINER, SR. AND ARDEN E. MINER
Date Executed:	02/10/2012
Date Recorded:	03/02/2012
Book:	NA
Page:	NA
Volume:	NA
Instrument#:	21563145
Docket:	NA
Land Record Comments:	NA
Miscellaneous Comments:	NA

Deed 4

Type of Deed:	GRANT DEED
Title is vested in:	ARDEN E. & WILLIAM B. MINER, SR. (70% INTEREST) AND WILLIAM B. MINER, JR. (30%)
Title received from:	INVESTMENT ENTERPRISES, G.P.
Date Executed:	02/10/2012
Date Recorded:	03/02/2012
Book:	NA
Page:	NA
Volume:	NA
Instrument#:	21563142
Docket:	NA
Land Record Comments:	NA
Miscellaneous Comments:	NA

Legal Description:	LOT 11; SUB PEEBELS
Current Owner:	THE WILLIAM AND LESLIE MINER REVOCABLE TRUST, ET AL
Property Identifiers:	726-36-059
Comments:	NA

EDR Environmental Lien and AUL Search

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

If Found:

1st Party:	NA
2nd Party:	NA
Dated:	NA
Recorded:	NA
Book:	NA
Page:	NA
Docket:	NA
Volume:	NA
Instrument #:	NA
Comments:	NA
Miscellaneous:	NA

OTHER ACTIVITY AND USE LIMITATIONS (AULS)

Other AUL's: Found ☐ Not Found ☒

If Found:

1st Party:	NA
2nd Party:	NA
Dated:	NA
Recorded:	NA
Book:	NA
Page:	NA
Docket:	NA
Volume:	NA
Instrument #:	NA
Comments:	NA
Miscellaneous:	NA

EDR Environmental Lien and AUL Search

MISCELLANEOUS

Type of Instrument: NONE IDENTIFIED
First Party:
Second Party:
Date Executed:
Date Recorded:
Instrument #:
Book:
Page:
Comments:

EDR Environmental Lien and AUL Search

DEED EXHIBIT

24160153

Regina Alcomendras
Santa Clara County - Clerk-Recorder

04/19/2019 08:37 AM

Titles: 1 Pages: 3

Fees: $111.00
Taxes: $0.00
Total: $111.00

REQUESTED BY:
Kenneth J. Machado, Jr.
Attorney at Law

WHEN RECORDED MAIL TO:
Machado Law Office
33 N. San Pedro Street
San Jose, CA 95110-2414

MAIL TAX STATEMENTS TO:
William and Leslie Miner
15075 Murphy Avenue
San Martin, CA 95046

APN: 726-36-059 Space Above This Line for Recorder's Use

THE UNDERSIGNED GRANTOR DECLARES that under the penalty of perjury that the following is true and correct:

THERE IS NO CONSIDERATION FOR THIS TRANSFER. R&T 11930

This transfer is exempt from the documentary transfer tax. This is a Trust Transfer under § 62 of the Revenue and Taxation Code as a transfer to a revocable trust.

City of Morgan Hill.

TRUST TRANSFER DEED

WILLIAM B. MINER, JR. hereby grants to **WILLIAM B. MINER, JR.** and **LESLIE MINER,** as Trustees of the **WILLIAM AND LESLIE MINER REVOCABLE TRUST** dated April 16, 2019, all of his undivided 60% interest in the following real property which is located in Santa Clara County, State of California:

The land referred to herein below is situated in the City of Morgan Hill, County of Santa Clara, State of California, and is described in Exhibit "A", which is attached hereto and incorporated herein.

More commonly known as 1110 Monterey Road, Morgan Hill, CA

DATE: April 16, 2019

GRANTOR

Wm B. Miner Jr.

William B. Miner, Jr.

EXHIBIT "A"

Legal Description

PARCEL NO. 1: Beginning at an iron pipe in the Southwesterly line of Taylor Avenue, distant thereon North 39° 30' West 82.27 feet from an iron pipe driven into an old redwood corner stake at the most Easterly corner of Lot 30 as the said Avenue and lot are shown upon the recorded Map of the Peebels Tract hereinafter referred to; thence running along the said Southwesterly line of Taylor Avenue North 39° 30' West 264.63 feet to a 3/4 inch iron bar set in the dividing line between Lots 27 and 28 of the said Peebels Tract; thence running along the said dividing line between Lots 27 and 28 South 51° 55' West 415.80 feet to a one inch iron pipe driven in the center of an old redwood stake at the common corner for Lots 12, 13, 27 and 28 of the said Peebels Tract; thence running along the line dividing the said Lot 12 and the said Lot 27 and along the line dividing Lot 11 and Lot 26 of the said Peebels Tract, North 39° 30' West 150.00 feet to a one inch iron pipe; thence running parallel with the Northwesterly line of the said Lot 13 South 51° 55' West 217.90 feet to a one inch iron pipe on the Northeasterly line of the parcel of land described as Parcel Two in the Deed from William F. Morris to George Karres, et ux, dated December 5, 1949 and recorded December 15, 1949 in Book 1892 of Official Records, page 571, Santa Clara County Records; thence running; along the said Northeasterly line of Parcel Two, the Northeasterly line of the land described as Parcel One in the same Deed from Morris to Karres, and the Northeasterly lines of the land conveyed from the Montalvo Company to the Western United Company by Deed dated December 2, 1953 and recorded December 22, 1953 in Book 2782 of Official Records, page 214, Santa Clara County Records, the following courses and distances: South 39° 30' East 220.00 feet to an iron pipe; South 51° 55' West 4.00 feet to an iron pipe; and south 39° 30' East 87.34 feet to the most Easterly corner of the said line so conveyed to the Western United Company; thence running along the Southeasterly line of the said land so conveyed to the Western United Company South 51° 55' West 186 feet, more or less, to the most Southerly corner thereof, on the Northeasterly line of Monterey Road, as established by decree of condemnation entered on December 30, 1947 in the Superior Court of the State of California, in and for the County of Santa Clara in that certain action entitled, "The People of the State of California, acting by and through the Department of Public Works, Plaintiff, vs. B. Cribari & Sons, Inc., et al, Defendants", Case No. 50953, a certified copy of which was filed for record on December 30, 1947 in Book 1545 of Official Records, page 372, Santa Clara County Records; thence running along the said Northeasterly line of Monterey Road the following courses and distances; South 18° 11' 07" East 24.50 feet, more or less, to a one inch iron pipe from which the Westerly corner of a brick warehouse bears Easterly 2.00 feet, more or less; South 39° 22' East 159.00 feet to a one inch iron pipe from which the Southerly corner of the said brick warehouse bears Northeasterly 1.5 feet, more or less; South 60° 32' 53" East 42.90 feet to a 3/4 inch iron bar driven flush in a paved drive; South 39° 22' East 51.00 feet to an iron pipe South 50° 38' West 6.00 feet to an iron pipe; South 39° 22' East 26.00 feet to an iron pipe; North 50° 38' East 6.00 feet to an iron pipe; and South 39° 22' East 14.72 feet to an iron pipe; thence leaving the said Northeasterly line of Monterey Road and running North 50° 38' East 182.76 feet to an iron pipe; thence running North 37° 15' 30" East 242.92 feet to an iron pipe; thence running North 39° 30' West 134.69 feet to an iron pipe; thence running North 51° 03' East 398.34 feet to the point of beginning.

APN: 726-36-059
More commonly known as 1110 Monterey Road, Morgan Hill, CA

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
)
County of Santa Clara)

On April 16, 2019 before me, Maria E. De La Torre, personally appeared **WILLIAM B. MINER, JR.** who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature María E. De La Torre (Seal)

NRO1 MARIA E. DE LA TORRE
COMM. #2277639
Notary Public - California
Santa Clara County
My Comm. Expires Mar. 12, 2023 NRO1

RECORDING REQUESTED BY:
Kenneth J. Machado, Jr.
Attorney At Law
AND WHEN RECORDED MAIL THIS DEED AND, UNLESS OTHERWISE SHOWN BELOW, TO:
Kenneth J. Machado, Jr.
Machado Law Office
33 N. San Pedro Street
San Jose, CA 95110-2414

Order No.:

Escrow No.:

DOCUMENT: 22539020

Pages: 3

Fees . . 36 00
Taxes
Copies
AMT PAID 36 00

REGINA ALCOMENDRAS
SANTA CLARA COUNTY RECORDER
Recorded at the request of
Attorney

RDE # 005
3/07/2014
12:57 PM

A.P.N.: 726-36-059

SPACE ABOVE THIS LINE IS FOR RECORDER'S USE

TRUST TRANSFER DEED

GRANT DEED (Excluded from Reappraisal Under Proposition 13, i.e., Calif. Const. Art 13A§1 et seq.)
THE UNDERSIGNED GRANTOR(S) DECLARE(S) UNDER PENALTY OF PERJURY THAT THE FOLLOWING IS TRUE AND CORRECT:

DOCUMENTARY TRANSFER TAX IS $ 0.00 **NO ENCUMBRANCES** .

☐ Computed on full value of property conveyed, or ☐ computed on full value less value of liens and encumbrances remaining at time of sale or transfer.

[X] There is no Documentary transfer tax due. (State reason and give Code § or Ordinance number). Transfer upon death R&T 11930

☐ Unincorporated area: ☐ city of AND

This is a Trust Transfer under §62 of the Revenue and Taxation Code and Grantor(s) has (have) checked the applicable exclusion:

☐ Transfer to a revocable trust; ☐ Transfer to a short-term trust not exceeding 12 years with trustor holding the reversion;

☐ Transfer to a trust where the trustor or the trustor's spouse is the sole beneficiary; ☐ Change of trustee holding title;

☐ Transfer from trust to trustor or trustor's spouse where prior transfer to trust was excluded from reappraisal and for a valuable consideration, receipt of which is acknowledged.

☐ Other:

GRANTOR(S): WENDY ROUSH as Trustee of the Miner Family Revocable Living Trust dated 2/2/11
hereby **GRANT(S) TO: SEE ATTACHMENT 1 FOR GRANTEES**

the following described real property in the County of Santa Clara , State of California:

*****See Exhibit "A" attached hereto and made a part hereof*****

Dated: 3-6-14

Wendy Roush

STATE OF CALIFORNIA
COUNTY OF SANTA CLARA } SS.
On March 6, 2014, before me,
Maria E. De La Torre,
(here insert name and title of the officer)
personally appeared **WENDY ROUSH**

who proved to me on the basis of satisfactory evidence to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity(~~ies~~), and that by ~~his~~/her/~~their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY of PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.
Signature Maria E. De La Torre
Maria E. De La Torre

MARIA E. DELATORRE
COMM. #1925881
Notary Public - California
Santa Clara County
My Comm. Expires Mar. 12, 2015

(This area for official notarial seal)

MAIL TAX STATEMENTS AS DIRECTED ABOVE

RE-879

ATTACHMENT 1

GRANTEES: WENDY ROUSH, as to an undivided 4/7th interest and to WILLIAM B. MINER, JR., as to an undivided 3/7th interest in the 70% interest owned by the Grantor.

EXHIBIT "A"

Legal Description

PARCEL NO. 1: Beginning at an iron pipe in the Southwesterly line of Taylor Avenue, distant thereon North 39° 30' West 82.27 feet from an iron pipe driven into an old redwood corner stake at the most Easterly corner of Lot 30 as the said Avenue and lot are shown upon the recorded Map of the Peebels Tract hereinafter referred to; thence running along the said Southwesterly line of Taylor Avenue North 39° 30' West 264.63 feet to a 3/4 inch iron bar set in the dividing line between Lots 27 and 28 of the said Peebels Tract; thence running along the said dividing line between Lots 27 and 28 South 51° 55' West 415.80 feet to a one inch iron pipe driven in the center of an old redwood stake at the common corner for Lots 12, 13, 27 and 28 of the said Peebels Tract; thence running along the line dividing the said Lot 12 and the said Lot 27 and along the line dividing Lot 11 and Lot 26 of the said Peebels Tract, North 39° 30' West 150.00 feet to a one inch iron pipe; thence running parallel with the Northwesterly line of the said Lot 13 South 51° 55' West 217.90 feet to a one inch iron pipe on the Northeasterly line of the parcel of land described as Parcel Two in the Deed from William F. Morris to George Karres, et ux, dated December 5, 1949 and recorded December 15, 1949 in Book 1892 of Official Records, page 571, Santa Clara County Records; thence running; along the said Northeasterly line of Parcel Two, the Northeasterly line of the land described as Parcel One in the same Deed from Morris to Karres, and the Northeasterly lines of the land conveyed from the Montalvo Company to the Western United Company by Deed dated December 2, 1953 and recorded December 22, 1953 in Book 2782 of Official Records, page 214, Santa Clara County Records, the following courses and distances: South 39° 30' East 220.00 feet to an iron pipe; South 51° 55' West 4.00 feet to an iron pipe; and south 39° 30' East 87.34 feet to the most Easterly corner of the said line so conveyed to the Western United Company; thence running along the Southeasterly line of the said land so conveyed to the Western United Company South 51° 55' West 186 feet, more or less, to the most Southerly corner thereof, on the Northeasterly line of Monterey Road, as established by decree of condemnation entered on December 30, 1947 in the Superior Court of the State of California, in and for the County of Santa Clara in that certain action entitled, "The People of the State of California, acting by and through the Department of Public Works, Plaintiff, vs. B. Cribari & Sons, Inc., et al, Defendants", Case No. 50953, a certified copy of which was filed for record on December 30, 1947 in Book 1545 of Official Records, page 372, Santa Clara County Records; thence running along the said Northeasterly line of Monterey Road the following courses and distances; South 18° 11' 07" East 24.50 feet, more or less, to a one inch iron pipe from which the Westerly corner of a brick warehouse bears Easterly 2.00 feet, more or less; South 39° 22' East 159.00 feet to a one inch iron pipe from which the Southerly corner of the said brick warehouse bears Northeasterly 1.5 feet, more or less; South 60° 32' 53" East 42.90 feet to a 3/4 inch iron bar driven flush in a paved drive; South 39° 22' East 51.00 feet to an iron pipe South 50° 38' West 6.00 feet to an iron pipe; South 39° 22' East 26.00 feet to an iron pipe; North 50° 38' East 6.00 feet to an iron pipe; and South 39° 22' East 14.72 feet to an iron pipe; thence leaving the said Northeasterly line of Monterey Road and running North 50° 38' East 182.76 feet to an iron pipe; thence running North 37° 15' 30" East 242.92 feet to an iron pipe; thence running North 39° 30' West 134.69 feet to an iron pipe; thence running North 51° 03' East 398.34 feet to the point of beginning.

APN: 726-36-059
More commonly known as 1110 Monterey Road, Morgan Hill, CA

RECORDING REQUESTED BY:
Kenneth J. Machado, Jr.
Attorney At Law
AND WHEN RECORDED MAIL THIS DEED AND, UNLESS OTHERWISE SHOWN BELOW, TO:
Kenneth J. Machado, Jr.
Machado Law Office
33 N. San Pedro Street
San Jose, CA 95110-2414

Order No.:
Escrow No.:

DOCUMENT: 21563145

Pages: 4
Fees. 29 00
Taxes .
Copies.
AMT PAID 29 00

REGINA ALCOMENDRAS
SANTA CLARA COUNTY RECORDER
Recorded at the request of
Grantor

RDE # 024
3/02/2012
1:38 PM

A.P.N.: 726-36-059

SPACE ABOVE THIS LINE IS FOR RECORDER'S USE

TRUST TRANSFER DEED

GRANT DEED (Excluded from Reappraisal Under Proposition 13, i.e., Calif. Const. Art 13A§1 et seq.)
THE UNDERSIGNED GRANTOR(S) DECLARE(S) UNDER PENALTY OF PERJURY THAT THE FOLLOWING IS TRUE AND CORRECT:

DOCUMENTARY TRANSFER TAX IS $ 0.00 .

☐ Computed on full value of property conveyed, or ☐ computed on full value less value of liens and encumbrances remaining at time of sale or transfer.

[X] There is no Documentary transfer tax due. (State reason and give Code § or Ordinance number). Transfer is to a trust.

☐ Unincorporated area: [X] city of Morgan Hill AND

This is a Trust Transfer under §62 of the Revenue and Taxation Code and Grantor(s) has (have) checked the applicable exclusion:

[X] Transfer to a revocable trust; ☐ Transfer to a short-term trust not exceeding 12 years with trustor holding the reversion;

[X] Transfer to a trust where the trustor or the trustor's spouse is the sole beneficiary; ☐ Change of trustee holding title;

☐ Transfer from trust to trustor or trustor's spouse where prior transfer to trust was excluded from reappraisal and for a valuable consideration, receipt of which is acknowledged.

☐ Other:

GRANTOR(S): William B. Miner, Sr. and Arden E. Miner

hereby **GRANT(S) TO:** William B. Miner, Sr. and Arden E. Miner as Trustees of The Miner Family Revocable Living Trust our entire 70% interest in the following described real property in the County of Santa Clara, State of California:

See Exhibit "A" attached hereto and made a part hereof

Dated: February 10, 2012

William B. Miner, Sr. — Arden E. Miner

STATE OF CALIFORNIA
COUNTY OF SANTA CLARA) SS.
On February 10, 2012, before me,
Maria E. De La Torre, Notary Public,
(here insert name and title of the officer)
personally appeared **WILLIAM B. MINER, SR.** and **ARDEN E. MINER**,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) ~~is~~/are subscribed to the within instrument and acknowledged to me that ~~he/she~~/they executed the same in ~~his/her~~/their authorized capacity(ies), and that by ~~his/her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY of PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand ~~and~~ official seal.
Signature Maria E. De La Torre
Maria E. De La Torre

MARIA E. DELATORRE
COMM. #1925881
Notary Public - California
Santa Clara County
My Comm. Expires Mar. 12, 2015

(This area for official notarial seal)

MAIL TAX STATEMENTS AS DIRECTED ABOVE

RE-879

EXHIBIT A

LEGAL DESCRIPTION

PARCEL NO. 1:— Beginning at an iron pipe in the Southwesterly line of Taylor Avenue, distant thereon North 39° 30' West 82.27 feet from an iron pipe driven into an old redwood corner stake at the most Easterly corner of Lot 30, as the said Avenue and lot are shown upon the recorded Map of the Peebels Tract hereinafter referred to; thence running along the said Southwesterly line of Taylor Avenue North 39° 30' West 264.63 feet to a 3/4 inch iron bar set in the dividing line between Lots 27 and 28 of the said Peebels Tract; thence running along the said dividing line between Lots 27 and 28 South 51° 55' West 415.80 feet to a one inch iron pipe driven in the center of an old redwood stake at the common corner for Lots 12, 13, 27 and 28 of the said Peebels Tract; thence running along the line dividing the said Lot 12 and the said Lot 27 and along the line dividing Lot 11 and Lot 26 of the said Peebels Tract, North 39° 30' West 150.00 feet to a one inch iron pipe; thence running parallel with the Northwesterly line of the said Lot 13 South 51° 55' West 217.90 feet to a one inch iron pipe on the Northeasterly line of the parcel of land described as Parcel Two in the Deed from William F. Morris to George Karres, et ux, dated December 5, 1949 and recorded December 15, 1949 in Book 1892 of Official Records, page 571, Santa Clara County Records; thence running along the said Northeasterly line of Parcel Two, the Northeasterly line of the land described as Parcel One in the same Deed from Morris to Karres, and the Northeasterly lines of the land conveyed from the Montalvo Company to the Western United Company by Deed dated December 2, 1953 and recorded December 22, 1953 in Book 2782 of Official Records, page 214, Santa Clara County Records, the following courses and distances: South 39° 30' East 220.00 feet to an iron pipe; South 51° 55' West 4.00 feet to an iron pipe; and South 39° 30' East 87.34 feet to the most Easterly corner of the said land so conveyed to the Western United Company; thence running along the Southeasterly line of the said land so conveyed to the Western United Company South 51° 55' West 186 feet, more or less, to the most Southerly corner thereof, on the Northeasterly line of Monterey Road, as established by decree of condemnation entered on December 30, 1947 in the Superior Court of the State of California, in and for the County of Santa Clara in that certain action entitled, "The People of the State of California, acting by and through the Department of Public Works, Plaintiff, vs. B. Cribari & Sons, Inc., et al, Defendants", Case No. 50953, a certified copy of which was filed for record on December 30, 1947 in Book 1545 of Official Records, page 372, Santa Clara County Records; thence running along the said Northeasterly line of Monterey Road the following courses and distances: South 18° 11' 07" East 24.50 feet, more or less, to a one inch iron pipe from which the Westerly corner of a brick warehouse bears Easterly 2.00 feet, more or less; South 39° 22' East 159.00 feet to a one inch iron pipe from which the Southerly corner of the said brick warehouse bears Northeasterly 1.5 feet, more or less; South 60° 32' 53" East 42.90 feet to a 3/4 inch iron bar driven flush in a paved drive; South 39° 22' East 51.00 feet to an iron pipe; South 50° 38' West 6.00 feet to an iron pipe; South 39° 22' East 26.00 feet to an iron pipe; North 50° 38' East 6.00 feet to an iron pipe; and South 39° 22' East 14.72 feet to an iron pipe; thence leaving the said Northeasterly line of Monterey Road and running North 50° 35' East 182.76 feet to an iron pipe; thence running North 37° 15' 30" East 242.92 feet to an iron pipe; thence running North 39° 30' West 134.69 feet to an iron pipe; thence running North 51° 03' East 398.34 feet to the point of beginning;

Being all of Lots 28 and 29, and a portion of Lots 11, 12, 13, 14, 15 and 30 as shown upon the Map showing the Subdivision of a Part of the Peebels Tract in the Rancho La Laguna Seca, which was filed for record in the office of the Recorder of the County of Santa Clara, State of California, on May 13, 1887 in Book B of Maps, page 63; and also including a portion of Lot A as shown upon the Map of the Subdivision of the Cairns Tract in the Rancho La Laguna Seca, which was filed for record in the office of the Recorder of the County of Santa Clara, State of California, on February 23, 1898 in Book I of Maps, page 91; and also being a portion of the premises shown upon the Record of Survey in the Peebles and the Cairns Tract, which was filed for record on December 2, 1952 in the office of the Recorder of the County of Santa Clara, State of California, in Book 39 of Maps, page 18;

Together with and as appurtenant to and for the benefit of the above described land, an easement for the purpose of ingress and egress and for the installation and maintenance of water pipe lines, over the following described parcel of land:

Beginning at an iron pipe on the Southeasterly line of Lot 30, distant thereon South 51° 03' West 229.54 feet from an iron pipe driven into an old redwood corner stake in the Southwesterly line of Taylor Avenue at the most Easterly corner of the said Lot 30, as the said lot and avenue are shown upon the Map showing the Subdivision of a Part of the Peebels Tract in the Rancho La Laguna Seca, which was filed for record in the office of the Recorder of the County of Santa Clara, State of California, on May 13, 1887 in Book B of Maps, page 63; thence leaving the said Southeasterly line of Lot 30 and running South 39° 30' East 11.08 feet to an iron pipe; thence running South 37° 15' 30" West 401.86 feet to an iron pipe at the

True Point of Beginning; thence running South 36° 13' East 133.62 feet to an iron pipe; thence running South 84° 22' East 52.07 feet to an iron pipe; thence running North 39° 27' 40" West 177.18 feet; thence running South 37° 15' 30" West 30.00 feet to the said true point of beginning;

Being a portion of Lot A as shown upon the Map of the Subdivision of the Cairns Tract in the Rancho La Laguna Seca, which was filed for record in the office of the Recorder of the County of Santa Clara, State of California, on February 23, 1898 in Book I of Maps, page 91; and also being a portion of the premises shown upon the Record of Survey in the Peebles and the Cairns Tract, which was filed for record on December 2, 1952 in the office of the Recorder of the County of Santa Clara, State of California, in Book 39 of Maps, page 18.

PARCEL NO. 2: Beginning at an iron pipe in the Southeasterly line of Lot 30, distant thereon South 51° 03' West 229.54 feet from an iron pipe driven into an old redwood corner stake in the Southwesterly line of Taylor Avenue at the most Easterly corner of the said Lot 30, as the said lot and avenue are shown upon the Map showing the Subdivision of a Part of the Peebels Tract in the Rancho La Laguna Seca, which was filed for record in the office of the Recorder of the County of Santa Clara, State of California, on May 13, 1887 in Book B of Maps, page 63; thence leaving the said Southeasterly line of Lot 30 and running South 39° 30' East 11.08 feet to an iron pipe; thence running South 37° 15' 30" West 401.86 feet to an iron pipe; thence running South 36° 13' East 133.62 feet to an iron pipe at the

True Point of Beginning; thence running South 5° 38' West 41.04 feet to an iron pipe; thence running South 84° 22' East 45.00 feet to an iron pipe; thence running South 39° 22' East 65.11 feet to an iron pipe; thence running North 50° 38' East 34.02 feet to an iron pipe; thence running North 39° 22' West 89.10 feet to an iron pipe; thence running North 84° 22' West 52.07 feet to the said true point of beginning; containing 0.11 acres, more or less, as shown upon the Record of Survey in the Peebles and the Cairns Tract, which was filed for record in the office of the Recorder of the County of Santa Clara, State of California, on December 2, 1952 in Book 39 of Maps, page 18; and

Being a portion of Lot A as shown upon the Map of the Subdivision of the Cairns Tract in the Rancho La Laguna Seca, which was filed for record in the Office of the Recorder of the County of Santa Clara, State of California, on February 23, 1898 in Book I of Maps, page 91.

PARCEL NO. 3: Beginning at an iron pipe driven into an old redwood corner stake in the Southwesterly line of Taylor Avenue at the most Easterly corner of Lot 30, as the said avenue and lot are shown upon the recorded Map hereinafter referred to; thence running along the said Southwesterly line of Taylor Avenue North 39° 30' West 82.27 feet to an iron pipe; thence running parallel with the Southeasterly line of the said Lot 30 South 51° 03' West 229.54 feet; thence running parallel with the said Southwesterly line of Taylor Avenue South 39° 30' East 82.27 feet to an iron pipe in the said Southeasterly line of Lot 30; thence running along the said Southeasterly line of Lot 30 North 51° 03' East 229.54 feet to the point of beginning;

Being a portion of Lot 30 as shown upon the Map showing the Subdivision of a Part of the Peebels Tract in the Rancho La Laguna Seca, which was filed for record in the office of the Recorder of the County of Santa Clara, State of California, on May 13, 1887 in Book B of Maps, page 63; and also being a portion of the premises shown upon the Record of Survey in the Peebles and the Cairns Tract, which was filed for record on December 2, 1952 in the office of the Recorder of the County of Santa Clara, State of California, in Book 39 of Maps, page 18.

DOCUMENT: 21563142

Pages: 4

Fees	39 00
Taxes	99.00
Copies	
AMT PAID	138 00

REGINA ALCOMENDRAS
SANTA CLARA COUNTY RECORDER
Recorded at the request of
Grantor

RDE # 024
3/02/2012
1:38 PM

RECORDING REQUESTED BY

Kenneth J. Machado, Jr.
Attorney At Law

AND WHEN RECORDED MAIL THIS DEED AND, UNLESS OTHERWISE SHOWN BELOW, MAIL TAX STATEMENT TO:

Name Kenneth J. Machado, Jr.
Street Machado Law Office
Address 33 N. San Pedro Street
City & State Zip San Jose, CA 95110-2414

Title Order No _____ Escrow No. _____

T 355 Legal (2-94)

SPACE ABOVE THIS LINE FOR RECORDER'S USE

Grant Deed

THE UNDERSIGNED GRANTOR(s) DECLARE(s) $99. Lyn Machado
DOCUMENTARY TRANSFER TAX IS $ ~~0.00 R&T 62(a) (2)~~
☐ ___ unincorporated area ☒ City of Morgan Hill

Parcel No. 726-36-059

☐ computed on full value of interest or property conveyed, or

☐ computed on full value less value of liens or encumbrances remaining at time of sale, and

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, Investment Enterprises, a California general partnership,

hereby GRANT(S) to William B. Miner, Sr., and Arden E. Miner, husband and wife, as to an undivided 70% interest and William B. Miner, Jr. as to an undivided 30% interest

the following described real property in the City of Morgan Hill California county of Santa Clara, state of California: Described in a Exhibit "A" which is attached hereto and incorporated herein.

Dated 2-10-12

Investment Enterprises
by: William B. Miner, Sr., Gen. Partner
by: Arden E. Miner, Gen. Partner
by: William B. Miner, Jr., Gen. Partner

STATE OF CALIFORNIA
COUNTY OF Santa Clara } S.S.

On 2-10-12 before me, Maria E. De La Torre, Notary Public, personally appeared **WILLIAM B. MINER, SR., ARDEN E. MINER** and **WILLIAM B. MINER, JR.**

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that ~~he/she~~/they executed the same in ~~his/her~~/their authorized capacity(ies), and that by ~~his/her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY of PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

Signature Maria E. De La Torre
Maria E. De La Torre

MARIA E. DELATORRE
COMM. #1925881
Notary Public - California
Santa Clara County
My Comm. Expires Mar. 12, 2015

(This area for notarial seal)

MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE

Name	Street Address	City & State
William B. Miner, Jr.	15075 Murphy Avenue	San Martin, CA 95046

CTC-13

EXHIBIT A

LEGAL DESCRIPTION

PARCEL NO. 1: Beginning at an iron pipe in the Southwesterly line of Taylor Avenue, distant thereon North 39° 30' West 82.27 feet from an iron pipe driven into an old redwood corner stake at the most Easterly corner of Lot 30, as the said Avenue and lot are shown upon the recorded Map of the Peebels Tract hereinafter referred to; thence running along the said Southwesterly line of Taylor Avenue North 39° 30' West 264.63 feet to a 3/4 inch iron bar set in the dividing line between Lots 27 and 28 of the said Peebels Tract; thence running along the said dividing line between Lots 27 and 28 South 51° 55' West 415.80 feet to a one inch iron pipe driven in the center of an old redwood stake at the common corner for Lots 12, 13, 27 and 28 of the said Peebels Tract; thence running along the line dividing the said Lot 12 and the said Lot 27 and along the line dividing Lot 11 and Lot 26 of the said Peebels Tract, North 39° 30' West 150.00 feet to a one inch iron pipe; thence running parallel with the Northwesterly line of the said Lot 13 South 51° 55' West 217.90 feet to a one inch iron pipe on the Northeasterly line of the parcel of land described as Parcel Two in the Deed from William F. Morris to George Karres, et ux, dated December 5, 1949 and recorded December 15, 1949 in Book 1892 of Official Records, page 571, Santa Clara County Records; thence running along the said Northeasterly line of Parcel Two, the Northeasterly line of the land described as Parcel One in the same Deed from Morris to Karres, and the Northeasterly lines of the land conveyed from the Montalvo Company to the Western United Company by Deed dated December 2, 1953 and recorded December 22, 1953 in Book 2782 of Official Records, page 214, Santa Clara County Records, the following courses and distances: South 39° 30' East 220.00 feet to an iron pipe; South 51° 55' West 4.00 feet to an iron pipe; and South 39° 30' East 87.34 feet to the most Easterly corner of the said land so conveyed to the Western United Company; thence running along the Southeasterly line of the said land so conveyed to the Western United Company South 51° 55' West 186 feet, more or less, to the most Southerly corner thereof, on the Northeasterly line of Monterey Road, as established by decree of condemnation entered on December 30, 1947 in the Superior Court of the State of California, in and for the County of Santa Clara in that certain action entitled, "The People of the State of California, acting by and through the Department of Public Works, Plaintiff, vs. B. Cribari & Sons, Inc., et al, Defendants", Case No. 50953, a certified copy of which was filed for record on December 30, 1947 in Book 1545 of Official Records, page 372, Santa Clara County Records; thence running along the said Northeasterly line of Monterey Road the following courses and distances: South 18° 11' 07" East 24.50 feet, more or less, to a one inch iron pipe from which the Westerly corner of a brick warehouse bears Easterly 2.00 feet, more or less; South 39° 22' East 159.00 feet to a one inch iron pipe from which the Southerly corner of the said brick warehouse bears Northeasterly 1.5 feet, more or less; South 60° 32' 53" East 42.90 feet to a 3/4 inch iron bar driven flush in a paved drive; South 39° 22' East 51.00 feet to an iron pipe; South 50° 38' West 6.00 feet to an iron pipe; South 39° 22' East 26.00 feet to an iron pipe; North 50° 38' East 6.00 feet to an iron pipe; and South 39° 22' East 14.72 feet to an iron pipe; thence leaving the said Northeasterly line of Monterey Road and running North 50° 38' East 182.76 feet to an iron pipe; thence running North 37° 15' 30" East 242.92 feet to an iron pipe; thence running North 39° 30' West 134.69 feet to an iron pipe; thence running North 51° 03' East 398.34 feet to the point of beginning;

Being all of Lots 28 and 29, and a portion of Lots 11, 12, 13, 14, 15 and 30 as shown upon the Map showing the Subdivision of a Part of the Peebels Tract in the Rancho La Laguna Seca, which was filed for record in the office of the Recorder of the County of Santa Clara, State of California, on May 13, 1887 in Book B of Maps, page 63; and also including a portion of Lot A as shown upon the Map of the Subdivision of the Cairns Tract in the Rancho La Laguna Seca, which was filed for record in the office of the Recorder of the County of Santa Clara, State of California, on February 23, 1898 in Book I of Maps, page 91; and also being a portion of the premises shown upon the Record of Survey in the Peebles and the Cairns Tract, which was filed for record on December 2, 1952 in the office of the Recorder of the County of Santa Clara, State of California, in Book 39 of Maps, page 18;

Together with and as appurtenant to and for the benefit of the above described land, an easement for the purpose of ingress and egress and for the installation and maintenance of water pipe lines, over the following described parcel of land:

Beginning at an iron pipe on the Southeasterly line of Lot 30, distant thereon South 51° 03' West 229.54 feet from an iron pipe driven into an old redwood corner stake in the Southwesterly line of Taylor Avenue at the most Easterly corner of the said Lot 30, as the said lot and avenue are shown upon the Map showing the Subdivision of a Part of the Peebels Tract in the Rancho La Laguna Seca, which was filed for record in the office of the Recorder of the County of Santa Clara, State of California, on May 13, 1887 in Book B of Maps, page 63; thence leaving the said Southeasterly line of Lot 30 and running South 39° 30' East 11.08 feet to an iron pipe; thence running South 37° 15' 30" West 401.86 feet to an iron pipe at the

True Point of Beginning; thence running South 36° 13' East 133.62 feet to an iron pipe; thence running South 84° 22' East 52.07 feet to an iron pipe; thence running North 39° 27' 40" West 177.18 feet; thence running South 37° 15' 30" West 30.00 feet to the said true point of beginning;

Being a portion of Lot A as shown upon the Map of the Subdivision of the Cairns Tract in the Rancho La Laguna Seca, which was filed for record in the office of the Recorder of the County of Santa Clara, State of California, on February 23, 1898 in Book I of Maps, page 91; and also being a portion of the premises shown upon the Record of Survey in the Peebles and the Cairns Tract, which was filed for record on December 2, 1952 in the office of the Recorder of the County of Santa Clara, State of California, in Book 39 of Maps, page 18.

PARCEL NO. 2: Beginning at an iron pipe in the Southeasterly line of Lot 30, distant thereon South 51° 03' West 229.54 feet from an iron pipe driven into an old redwood corner stake in the Southwesterly line of Taylor Avenue at the most Easterly corner of the said Lot 30, as the said lot and avenue are shown upon the Map showing the Subdivision of a Part of the Peebels Tract in the Rancho La Laguna Seca, which was filed for record in the office of the Recorder of the County of Santa Clara, State of California, on May 13, 1887 in Book B of Maps, page 63; thence leaving the said Southeasterly line of Lot 30 and running South 39° 30' East 11.08 feet to an iron pipe; thence running South 37° 15' 30" West 401.86 feet to an iron pipe; thence running South 36° 13' East 133.62 feet to an iron pipe at the

True Point of Beginning; thence running South 5° 38' West 41.04 feet to an iron pipe; thence running South 84° 22' East 45.00 feet to an iron pipe; thence running South 39° 22' East 65.11 feet to an iron pipe; thence running North 50° 38' East 34.02 feet to an iron pipe; thence running North 39° 22' West 89.10 feet to an iron pipe; thence running North 84° 22' West 52.07 feet to the said true point of beginning; containing 0.11 acres, more or less, as shown upon the Record of Survey in the Peebles and the Cairns Tract, which was filed for record in the office of the Recorder of the County of Santa Clara, State of California, on December 2, 1952 in Book 39 of Maps, page 18; and

Being a portion of Lot A as shown upon the Map of the Subdivision of the Cairns Tract in the Rancho La Laguna Seca, which was filed for record in the Office of the Recorder of the County of Santa Clara, State of California, on February 23, 1898 in Book I of Maps, page 91.

PARCEL NO. 3: Beginning at an iron pipe driven into an old redwood corner stake in the Southwesterly line of Taylor Avenue at the most Easterly corner of Lot 30, as the said avenue and lot are shown upon the recorded Map hereinafter referred to; thence running along the said Southwesterly line of Taylor Avenue North 39° 30' West 82.27 feet to an iron pipe; thence running parallel with the Southeasterly line of the said Lot 30 South 51° 03' West 229.54 feet; thence running parallel with the said Southwesterly line of Taylor Avenue South 39° 30' East 82.27 feet to an iron pipe in the said Southeasterly line of Lot 30; thence running along the said Southeasterly line of Lot 30 North 51° 03' East 229.54 feet to the point of beginning;

Being a portion of Lot 30 as shown upon the Map showing the Subdivision of a Part of the Peebels Tract in the Rancho La Laguna Seca, which was filed for record in the office of the Recorder of the County of Santa Clara, State of California, on May 13, 1887 in Book B of Maps, page 63; and also being a portion of the premises shown upon the Record of Survey in the Peebles and the Cairns Tract, which was filed for record on December 2, 1952 in the office of the Recorder of the County of Santa Clara, State of California, in Book 39 of Maps, page 18.

APPENDIX G

MCCAMPBELL ANALYTICAL LABORATORY REPORT

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 2003206

Report Created for: Earth Systems Pacific

500 Park Center Drive, Ste.1
Hollister, CA 95023

Project Contact: Brett Faust
Project P.O.:
Project: 303754-001; Monterey Road Development

Project Received: 03/05/2020

Analytical Report reviewed & approved for release on 03/11/2020 by:

Christine Askari
Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.

McCampbell Analytical, Inc.
"When Quality Counts"
1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: Earth Systems Pacific
Project: 303754-001; Monterey Road Development
WorkOrder: 2003206

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CPT	Consumer Product Testing not NELAP Accredited
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
LQL	Lowest Quantitation Level
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: Earth Systems Pacific
Project: 303754-001; Monterey Road Development
WorkOrder: 2003206

Analytical Qualifiers

B	Analyte detected in the associated Method Blank and in the sample
J	Result is less than the RL/ML but greater than the MDL. The reported concentration is an estimated value.
P	Agreement between quantitative confirmation results exceed method recommended limits
S	Spike recovery outside accepted recovery limits
a3	Sample diluted due to high organic content.
c1	Surrogate recovery outside of the control limits due to the dilution of the sample.
c2	Surrogate recovery outside of the control limits due to matrix interference.
c12	Surrogate recovery outside of the control limits
d7	Strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
e2	Diesel range compounds are significant; no recognizable pattern
e7	Oil range compounds are significant
e8	Pattern resembles kerosene/kerosene range/jet fuel range
h4	Sulfuric acid permanganate (EPA 3665) cleanup

Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validates the prep batch.
F2	LCS/LCSD recovery and/or RPD/RSD is out of acceptance criteria.
F3	The surrogate standard recovery and/or RPD is outside of acceptance limits.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3550B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8081A
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Organochlorine Pesticides

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
C1a,C1b,C1c,C1d	2003206-018A	Soil	03/04/2020 09:25	GC40 03062034.d	195100

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.0050	5	03/06/2020 17:38
a-BHC	ND	0.0050	5	03/06/2020 17:38
b-BHC	ND	0.0050	5	03/06/2020 17:38
d-BHC	ND	0.0050	5	03/06/2020 17:38
g-BHC	ND	0.0050	5	03/06/2020 17:38
Chlordane (Technical)	ND	0.12	5	03/06/2020 17:38
a-Chlordane	ND	0.0050	5	03/06/2020 17:38
g-Chlordane	ND	0.0050	5	03/06/2020 17:38
p,p-DDD	ND	0.0050	5	03/06/2020 17:38
p,p-DDE	ND	0.0050	5	03/06/2020 17:38
p,p-DDT	**0.022**	0.0050	5	03/06/2020 17:38
Dieldrin	ND	0.0050	5	03/06/2020 17:38
Endosulfan I	ND	0.0050	5	03/06/2020 17:38
Endosulfan II	ND	0.0050	5	03/06/2020 17:38
Endosulfan sulfate	ND	0.0050	5	03/06/2020 17:38
Endrin	ND	0.0050	5	03/06/2020 17:38
Endrin aldehyde	ND	0.0050	5	03/06/2020 17:38
Endrin ketone	ND	0.0050	5	03/06/2020 17:38
Heptachlor	ND	0.0050	5	03/06/2020 17:38
Heptachlor epoxide	ND	0.0050	5	03/06/2020 17:38
Hexachlorobenzene	ND	0.050	5	03/06/2020 17:38
Hexachlorocyclopentadiene	ND	0.10	5	03/06/2020 17:38
Methoxychlor	ND	0.0050	5	03/06/2020 17:38
Toxaphene	ND	0.25	5	03/06/2020 17:38

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	82	69-143	03/06/2020 17:38

Analyst(s): BRV Analytical Comments: a3

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3550B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8081A
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Organochlorine Pesticides

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
C2a,C2b,C2c,C2d	2003206-019A	Soil	03/04/2020 09:47	GC40 03062035.d	195100

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Aldrin	ND		0.050	50	03/06/2020 17:52
a-BHC	ND		0.050	50	03/06/2020 17:52
b-BHC	ND		0.050	50	03/06/2020 17:52
d-BHC	ND		0.050	50	03/06/2020 17:52
g-BHC	ND		0.050	50	03/06/2020 17:52
Chlordane (Technical)	ND		1.2	50	03/06/2020 17:52
a-Chlordane	ND		0.050	50	03/06/2020 17:52
g-Chlordane	ND		0.050	50	03/06/2020 17:52
p,p-DDD	ND		0.050	50	03/06/2020 17:52
p,p-DDE	ND		0.050	50	03/06/2020 17:52
p,p-DDT	**0.091**	P	0.050	50	03/06/2020 17:52
Dieldrin	ND		0.050	50	03/06/2020 17:52
Endosulfan I	ND		0.050	50	03/06/2020 17:52
Endosulfan II	ND		0.050	50	03/06/2020 17:52
Endosulfan sulfate	ND		0.050	50	03/06/2020 17:52
Endrin	ND		0.050	50	03/06/2020 17:52
Endrin aldehyde	ND		0.050	50	03/06/2020 17:52
Endrin ketone	ND		0.050	50	03/06/2020 17:52
Heptachlor	ND		0.050	50	03/06/2020 17:52
Heptachlor epoxide	ND		0.050	50	03/06/2020 17:52
Hexachlorobenzene	ND		0.50	50	03/06/2020 17:52
Hexachlorocyclopentadiene	ND		1.0	50	03/06/2020 17:52
Methoxychlor	ND		0.050	50	03/06/2020 17:52
Toxaphene	ND		2.5	50	03/06/2020 17:52

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	103	69-143	03/06/2020 17:52

Analyst(s): BRV Analytical Comments: a3

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3550B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8081A
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Organochlorine Pesticides

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
C3a,C3b,C3c,C3d	2003206-020A	Soil	03/04/2020 10:06	GC40 03062036.d	195100

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.050	50	03/06/2020 18:06
a-BHC	ND	0.050	50	03/06/2020 18:06
b-BHC	ND	0.050	50	03/06/2020 18:06
d-BHC	ND	0.050	50	03/06/2020 18:06
g-BHC	ND	0.050	50	03/06/2020 18:06
Chlordane (Technical)	ND	1.2	50	03/06/2020 18:06
a-Chlordane	ND	0.050	50	03/06/2020 18:06
g-Chlordane	ND	0.050	50	03/06/2020 18:06
p,p-DDD	ND	0.050	50	03/06/2020 18:06
p,p-DDE	ND	0.050	50	03/06/2020 18:06
p,p-DDT	ND	0.050	50	03/06/2020 18:06
Dieldrin	ND	0.050	50	03/06/2020 18:06
Endosulfan I	ND	0.050	50	03/06/2020 18:06
Endosulfan II	ND	0.050	50	03/06/2020 18:06
Endosulfan sulfate	ND	0.050	50	03/06/2020 18:06
Endrin	ND	0.050	50	03/06/2020 18:06
Endrin aldehyde	ND	0.050	50	03/06/2020 18:06
Endrin ketone	ND	0.050	50	03/06/2020 18:06
Heptachlor	ND	0.050	50	03/06/2020 18:06
Heptachlor epoxide	ND	0.050	50	03/06/2020 18:06
Hexachlorobenzene	ND	0.50	50	03/06/2020 18:06
Hexachlorocyclopentadiene	ND	1.0	50	03/06/2020 18:06
Methoxychlor	ND	0.050	50	03/06/2020 18:06
Toxaphene	ND	2.5	50	03/06/2020 18:06

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	108	69-143	03/06/2020 18:06

Analyst(s): BRV Analytical Comments: a3

(Cont.)

CA ELAP 1644 • NELAP 4033ORELAP

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3550B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8081A
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Organochlorine Pesticides

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
C4a,C4b,C4c,C4d	2003206-021A	Soil	03/04/2020 10:23	GC40 03062044.d	195100

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.050	50	03/06/2020 19:57
a-BHC	ND	0.050	50	03/06/2020 19:57
b-BHC	ND	0.050	50	03/06/2020 19:57
d-BHC	ND	0.050	50	03/06/2020 19:57
g-BHC	ND	0.050	50	03/06/2020 19:57
Chlordane (Technical)	ND	1.2	50	03/06/2020 19:57
a-Chlordane	ND	0.050	50	03/06/2020 19:57
g-Chlordane	ND	0.050	50	03/06/2020 19:57
p,p-DDD	ND	0.050	50	03/06/2020 19:57
p,p-DDE	ND	0.050	50	03/06/2020 19:57
p,p-DDT	ND	0.050	50	03/06/2020 19:57
Dieldrin	ND	0.050	50	03/06/2020 19:57
Endosulfan I	ND	0.050	50	03/06/2020 19:57
Endosulfan II	ND	0.050	50	03/06/2020 19:57
Endosulfan sulfate	ND	0.050	50	03/06/2020 19:57
Endrin	ND	0.050	50	03/06/2020 19:57
Endrin aldehyde	ND	0.050	50	03/06/2020 19:57
Endrin ketone	ND	0.050	50	03/06/2020 19:57
Heptachlor	ND	0.050	50	03/06/2020 19:57
Heptachlor epoxide	ND	0.050	50	03/06/2020 19:57
Hexachlorobenzene	ND	0.50	50	03/06/2020 19:57
Hexachlorocyclopentadiene	ND	1.0	50	03/06/2020 19:57
Methoxychlor	ND	0.050	50	03/06/2020 19:57
Toxaphene	ND	2.5	50	03/06/2020 19:57

Surrogates	REC (%)	Qualifiers	Limits	
Decachlorobiphenyl	163	S	69-143	03/06/2020 19:57

Analyst(s): BRV Analytical Comments: a3,c1

(Cont.)

CA ELAP 1644 • NELAP 4033ORELAP

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3550B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8081A
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Organochlorine Pesticides

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
C5a,C5b,C5c,C5d	2003206-022A	Soil	03/04/2020 10:41	GC40 03062045.d	195100

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.020	20	03/06/2020 20:11
a-BHC	ND	0.020	20	03/06/2020 20:11
b-BHC	ND	0.020	20	03/06/2020 20:11
d-BHC	ND	0.020	20	03/06/2020 20:11
g-BHC	ND	0.020	20	03/06/2020 20:11
Chlordane (Technical)	ND	0.50	20	03/06/2020 20:11
a-Chlordane	ND	0.020	20	03/06/2020 20:11
g-Chlordane	ND	0.020	20	03/06/2020 20:11
p,p-DDD	ND	0.020	20	03/06/2020 20:11
p,p-DDE	ND	0.020	20	03/06/2020 20:11
p,p-DDT	ND	0.020	20	03/06/2020 20:11
Dieldrin	ND	0.020	20	03/06/2020 20:11
Endosulfan I	ND	0.020	20	03/06/2020 20:11
Endosulfan II	ND	0.020	20	03/06/2020 20:11
Endosulfan sulfate	ND	0.020	20	03/06/2020 20:11
Endrin	ND	0.020	20	03/06/2020 20:11
Endrin aldehyde	ND	0.020	20	03/06/2020 20:11
Endrin ketone	ND	0.020	20	03/06/2020 20:11
Heptachlor	ND	0.020	20	03/06/2020 20:11
Heptachlor epoxide	ND	0.020	20	03/06/2020 20:11
Hexachlorobenzene	ND	0.20	20	03/06/2020 20:11
Hexachlorocyclopentadiene	ND	0.40	20	03/06/2020 20:11
Methoxychlor	ND	0.020	20	03/06/2020 20:11
Toxaphene	ND	1.0	20	03/06/2020 20:11

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	112	69-143	03/06/2020 20:11

Analyst(s): BRV Analytical Comments: a3

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3550B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8082
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-12A	**2003206-012A**	**Soil**	**03/04/2020 10:53**	**GC41 03062011.d**	**195166**

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	1.0	20	03/06/2020 11:49
Aroclor1221	ND	1.0	20	03/06/2020 11:49
Aroclor1232	ND	1.0	20	03/06/2020 11:49
Aroclor1242	ND	1.0	20	03/06/2020 11:49
Aroclor1248	ND	1.0	20	03/06/2020 11:49
Aroclor1254	ND	1.0	20	03/06/2020 11:49
Aroclor1260	ND	1.0	20	03/06/2020 11:49
PCBs, total	ND	1.0	20	03/06/2020 11:49

Surrogates	REC (%)	Qualifiers	Limits	
Decachlorobiphenyl	170	S	69-143	03/06/2020 11:49

Analyst(s): BRV Analytical Comments: a3,h4,c1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-12B	**2003206-013A**	**Soil**	**03/04/2020 10:55**	**GC40 03062061.d**	**195166**

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	0.25	5	03/06/2020 23:56
Aroclor1221	ND	0.25	5	03/06/2020 23:56
Aroclor1232	ND	0.25	5	03/06/2020 23:56
Aroclor1242	ND	0.25	5	03/06/2020 23:56
Aroclor1248	ND	0.25	5	03/06/2020 23:56
Aroclor1254	ND	0.25	5	03/06/2020 23:56
Aroclor1260	ND	0.25	5	03/06/2020 23:56
PCBs, total	ND	0.25	5	03/06/2020 23:56

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	94	69-143	03/06/2020 23:56

Analyst(s): LT Analytical Comments: a3

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3550B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8082
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-13A	**2003206-014A**	**Soil**	**03/04/2020 11:05**	**GC41 03062012.d**	**195166**

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	1.0	20	03/06/2020 12:04
Aroclor1221	ND	1.0	20	03/06/2020 12:04
Aroclor1232	ND	1.0	20	03/06/2020 12:04
Aroclor1242	ND	1.0	20	03/06/2020 12:04
Aroclor1248	ND	1.0	20	03/06/2020 12:04
Aroclor1254	ND	1.0	20	03/06/2020 12:04
Aroclor1260	ND	1.0	20	03/06/2020 12:04
PCBs, total	ND	1.0	20	03/06/2020 12:04

Surrogates	REC (%)	Qualifiers	Limits	
Decachlorobiphenyl	330	S	69-143	03/06/2020 12:04

Analyst(s): BRV Analytical Comments: a3,h4,c1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-13B	**2003206-015A**	**Soil**	**03/04/2020 11:10**	**GC41 03062013.d**	**195166**

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	2.5	50	03/06/2020 12:19
Aroclor1221	ND	2.5	50	03/06/2020 12:19
Aroclor1232	ND	2.5	50	03/06/2020 12:19
Aroclor1242	ND	2.5	50	03/06/2020 12:19
Aroclor1248	ND	2.5	50	03/06/2020 12:19
Aroclor1254	ND	2.5	50	03/06/2020 12:19
Aroclor1260	ND	2.5	50	03/06/2020 12:19
PCBs, total	ND	2.5	50	03/06/2020 12:19

Surrogates	REC (%)	Qualifiers	Limits	
Decachlorobiphenyl	276	S	69-143	03/06/2020 12:19

Analyst(s): BRV Analytical Comments: a3,h4,c1

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3550B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8082
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-14A	**2003206-016A**	**Soil**	**03/04/2020 11:15**	**GC41 03062014.d**	**195166**

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	2.5	50	03/06/2020 12:34
Aroclor1221	ND	2.5	50	03/06/2020 12:34
Aroclor1232	ND	2.5	50	03/06/2020 12:34
Aroclor1242	ND	2.5	50	03/06/2020 12:34
Aroclor1248	ND	2.5	50	03/06/2020 12:34
Aroclor1254	ND	2.5	50	03/06/2020 12:34
Aroclor1260	ND	2.5	50	03/06/2020 12:34
PCBs, total	ND	2.5	50	03/06/2020 12:34

Surrogates	REC (%)	Qualifiers	Limits	
Decachlorobiphenyl	161	S	69-143	03/06/2020 12:34

Analyst(s): BRV Analytical Comments: a3,h4,c1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-14B	**2003206-017A**	**Soil**	**03/04/2020 11:19**	**GC41 03062015.d**	**195166**

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	0.50	10	03/06/2020 12:49
Aroclor1221	ND	0.50	10	03/06/2020 12:49
Aroclor1232	ND	0.50	10	03/06/2020 12:49
Aroclor1242	ND	0.50	10	03/06/2020 12:49
Aroclor1248	ND	0.50	10	03/06/2020 12:49
Aroclor1254	ND	0.50	10	03/06/2020 12:49
Aroclor1260	ND	0.50	10	03/06/2020 12:49
PCBs, total	ND	0.50	10	03/06/2020 12:49

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	116	69-143	03/06/2020 12:49

Analyst(s): BRV Analytical Comments: a3,h4

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5030B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8260B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-12A	2003206-012A	Soil	03/04/2020 10:53	GC16 03092028.D	195146

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/10/2020 00:21
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/10/2020 00:21
Benzene	ND	0.0050	1	03/10/2020 00:21
Bromobenzene	ND	0.0050	1	03/10/2020 00:21
Bromochloromethane	ND	0.0050	1	03/10/2020 00:21
Bromodichloromethane	ND	0.0050	1	03/10/2020 00:21
Bromoform	ND	0.0050	1	03/10/2020 00:21
Bromomethane	ND	0.0050	1	03/10/2020 00:21
2-Butanone (MEK)	ND	0.050	1	03/10/2020 00:21
t-Butyl alcohol (TBA)	ND	0.050	1	03/10/2020 00:21
n-Butyl benzene	ND	0.0050	1	03/10/2020 00:21
sec-Butyl benzene	ND	0.0050	1	03/10/2020 00:21
tert-Butyl benzene	ND	0.0050	1	03/10/2020 00:21
Carbon Disulfide	ND	0.0050	1	03/10/2020 00:21
Carbon Tetrachloride	ND	0.0050	1	03/10/2020 00:21
Chlorobenzene	ND	0.0050	1	03/10/2020 00:21
Chloroethane	ND	0.0050	1	03/10/2020 00:21
Chloroform	ND	0.0050	1	03/10/2020 00:21
Chloromethane	ND	0.0050	1	03/10/2020 00:21
2-Chlorotoluene	ND	0.0050	1	03/10/2020 00:21
4-Chlorotoluene	ND	0.0050	1	03/10/2020 00:21
Dibromochloromethane	ND	0.0050	1	03/10/2020 00:21
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/10/2020 00:21
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/10/2020 00:21
Dibromomethane	ND	0.0050	1	03/10/2020 00:21
1,2-Dichlorobenzene	ND	0.0050	1	03/10/2020 00:21
1,3-Dichlorobenzene	ND	0.0050	1	03/10/2020 00:21
1,4-Dichlorobenzene	ND	0.0050	1	03/10/2020 00:21
Dichlorodifluoromethane	ND	0.0050	1	03/10/2020 00:21
1,1-Dichloroethane	ND	0.0050	1	03/10/2020 00:21
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/10/2020 00:21
1,1-Dichloroethene	ND	0.0050	1	03/10/2020 00:21
cis-1,2-Dichloroethene	ND	0.0050	1	03/10/2020 00:21
trans-1,2-Dichloroethene	ND	0.0050	1	03/10/2020 00:21
1,2-Dichloropropane	ND	0.0050	1	03/10/2020 00:21
1,3-Dichloropropane	ND	0.0050	1	03/10/2020 00:21
2,2-Dichloropropane	ND	0.0050	1	03/10/2020 00:21

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5030B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8260B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-12A	2003206-012A	Soil	03/04/2020 10:53	GC16 03092028.D	195146

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/10/2020 00:21
cis-1,3-Dichloropropene	ND	0.0050	1	03/10/2020 00:21
trans-1,3-Dichloropropene	ND	0.0050	1	03/10/2020 00:21
Diisopropyl ether (DIPE)	ND	0.0050	1	03/10/2020 00:21
Ethylbenzene	ND	0.0050	1	03/10/2020 00:21
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/10/2020 00:21
Freon 113	ND	0.0050	1	03/10/2020 00:21
Hexachlorobutadiene	ND	0.0050	1	03/10/2020 00:21
Hexachloroethane	ND	0.0050	1	03/10/2020 00:21
2-Hexanone	ND	0.0050	1	03/10/2020 00:21
Isopropylbenzene	ND	0.0050	1	03/10/2020 00:21
4-Isopropyl toluene	ND	0.0050	1	03/10/2020 00:21
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/10/2020 00:21
Methylene chloride	ND	0.020	1	03/10/2020 00:21
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/10/2020 00:21
Naphthalene	ND	0.0050	1	03/10/2020 00:21
n-Propyl benzene	ND	0.0050	1	03/10/2020 00:21
Styrene	ND	0.0050	1	03/10/2020 00:21
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/10/2020 00:21
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/10/2020 00:21
Tetrachloroethene	ND	0.0050	1	03/10/2020 00:21
Toluene	ND	0.0050	1	03/10/2020 00:21
1,2,3-Trichlorobenzene	ND	0.0050	1	03/10/2020 00:21
1,2,4-Trichlorobenzene	ND	0.0050	1	03/10/2020 00:21
1,1,1-Trichloroethane	ND	0.0050	1	03/10/2020 00:21
1,1,2-Trichloroethane	ND	0.0050	1	03/10/2020 00:21
Trichloroethene	ND	0.0050	1	03/10/2020 00:21
Trichlorofluoromethane	ND	0.0050	1	03/10/2020 00:21
1,2,3-Trichloropropane	ND	0.0050	1	03/10/2020 00:21
1,2,4-Trimethylbenzene	ND	0.0050	1	03/10/2020 00:21
1,3,5-Trimethylbenzene	ND	0.0050	1	03/10/2020 00:21
Vinyl Chloride	ND	0.0050	1	03/10/2020 00:21
m,p-Xylene	ND	0.0050	1	03/10/2020 00:21
o-Xylene	ND	0.0050	1	03/10/2020 00:21
Xylenes, Total	ND	0.0050	1	03/10/2020 00:21

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5030B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8260B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-12A	2003206-012A	Soil	03/04/2020 10:53	GC16 03092028.D	195146

Analytes	Result	RL	DF	Date Analyzed

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	106		66-116	03/10/2020 00:21
Toluene-d8	116	S	86-110	03/10/2020 00:21
4-BFB	96		71-114	03/10/2020 00:21
Benzene-d6	76		62-122	03/10/2020 00:21
Ethylbenzene-d10	81		69-130	03/10/2020 00:21
1,2-DCB-d4	69		55-108	03/10/2020 00:21

Analyst(s): KF Analytical Comments: c12

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5030B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8260B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-12B	2003206-013A	Soil	03/04/2020 10:55	GC16 03092029.D	195146

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/10/2020 01:01
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/10/2020 01:01
Benzene	ND	0.0050	1	03/10/2020 01:01
Bromobenzene	ND	0.0050	1	03/10/2020 01:01
Bromochloromethane	ND	0.0050	1	03/10/2020 01:01
Bromodichloromethane	ND	0.0050	1	03/10/2020 01:01
Bromoform	ND	0.0050	1	03/10/2020 01:01
Bromomethane	ND	0.0050	1	03/10/2020 01:01
2-Butanone (MEK)	ND	0.050	1	03/10/2020 01:01
t-Butyl alcohol (TBA)	ND	0.050	1	03/10/2020 01:01
n-Butyl benzene	ND	0.0050	1	03/10/2020 01:01
sec-Butyl benzene	ND	0.0050	1	03/10/2020 01:01
tert-Butyl benzene	ND	0.0050	1	03/10/2020 01:01
Carbon Disulfide	ND	0.0050	1	03/10/2020 01:01
Carbon Tetrachloride	ND	0.0050	1	03/10/2020 01:01
Chlorobenzene	ND	0.0050	1	03/10/2020 01:01
Chloroethane	ND	0.0050	1	03/10/2020 01:01
Chloroform	ND	0.0050	1	03/10/2020 01:01
Chloromethane	ND	0.0050	1	03/10/2020 01:01
2-Chlorotoluene	ND	0.0050	1	03/10/2020 01:01
4-Chlorotoluene	ND	0.0050	1	03/10/2020 01:01
Dibromochloromethane	ND	0.0050	1	03/10/2020 01:01
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/10/2020 01:01
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/10/2020 01:01
Dibromomethane	ND	0.0050	1	03/10/2020 01:01
1,2-Dichlorobenzene	ND	0.0050	1	03/10/2020 01:01
1,3-Dichlorobenzene	ND	0.0050	1	03/10/2020 01:01
1,4-Dichlorobenzene	ND	0.0050	1	03/10/2020 01:01
Dichlorodifluoromethane	ND	0.0050	1	03/10/2020 01:01
1,1-Dichloroethane	ND	0.0050	1	03/10/2020 01:01
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/10/2020 01:01
1,1-Dichloroethene	ND	0.0050	1	03/10/2020 01:01
cis-1,2-Dichloroethene	ND	0.0050	1	03/10/2020 01:01
trans-1,2-Dichloroethene	ND	0.0050	1	03/10/2020 01:01
1,2-Dichloropropane	ND	0.0050	1	03/10/2020 01:01
1,3-Dichloropropane	ND	0.0050	1	03/10/2020 01:01
2,2-Dichloropropane	ND	0.0050	1	03/10/2020 01:01

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5030B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8260B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-12B	2003206-013A	Soil	03/04/2020 10:55	GC16 03092029.D	195146

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/10/2020 01:01
cis-1,3-Dichloropropene	ND	0.0050	1	03/10/2020 01:01
trans-1,3-Dichloropropene	ND	0.0050	1	03/10/2020 01:01
Diisopropyl ether (DIPE)	ND	0.0050	1	03/10/2020 01:01
Ethylbenzene	ND	0.0050	1	03/10/2020 01:01
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/10/2020 01:01
Freon 113	ND	0.0050	1	03/10/2020 01:01
Hexachlorobutadiene	ND	0.0050	1	03/10/2020 01:01
Hexachloroethane	ND	0.0050	1	03/10/2020 01:01
2-Hexanone	ND	0.0050	1	03/10/2020 01:01
Isopropylbenzene	ND	0.0050	1	03/10/2020 01:01
4-Isopropyl toluene	ND	0.0050	1	03/10/2020 01:01
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/10/2020 01:01
Methylene chloride	ND	0.020	1	03/10/2020 01:01
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/10/2020 01:01
Naphthalene	ND	0.0050	1	03/10/2020 01:01
n-Propyl benzene	ND	0.0050	1	03/10/2020 01:01
Styrene	ND	0.0050	1	03/10/2020 01:01
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/10/2020 01:01
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/10/2020 01:01
Tetrachloroethene	ND	0.0050	1	03/10/2020 01:01
Toluene	ND	0.0050	1	03/10/2020 01:01
1,2,3-Trichlorobenzene	ND	0.0050	1	03/10/2020 01:01
1,2,4-Trichlorobenzene	ND	0.0050	1	03/10/2020 01:01
1,1,1-Trichloroethane	ND	0.0050	1	03/10/2020 01:01
1,1,2-Trichloroethane	ND	0.0050	1	03/10/2020 01:01
Trichloroethene	ND	0.0050	1	03/10/2020 01:01
Trichlorofluoromethane	ND	0.0050	1	03/10/2020 01:01
1,2,3-Trichloropropane	ND	0.0050	1	03/10/2020 01:01
1,2,4-Trimethylbenzene	**0.0062**	0.0050	1	03/10/2020 01:01
1,3,5-Trimethylbenzene	ND	0.0050	1	03/10/2020 01:01
Vinyl Chloride	ND	0.0050	1	03/10/2020 01:01
m,p-Xylene	ND	0.0050	1	03/10/2020 01:01
o-Xylene	ND	0.0050	1	03/10/2020 01:01
Xylenes, Total	ND	0.0050	1	03/10/2020 01:01

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5030B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8260B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-12B	2003206-013A	Soil	03/04/2020 10:55	GC16 03092029.D	195146

Analytes	Result	RL	DF	Date Analyzed

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	106		66-116	03/10/2020 01:01
Toluene-d8	116	S	86-110	03/10/2020 01:01
4-BFB	98		71-114	03/10/2020 01:01
Benzene-d6	82		62-122	03/10/2020 01:01
Ethylbenzene-d10	105		69-130	03/10/2020 01:01
1,2-DCB-d4	78		55-108	03/10/2020 01:01

Analyst(s): KF Analytical Comments: c2

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5030B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8260B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-13A	2003206-014A	Soil	03/04/2020 11:05	GC16 03092030.D	195146

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/10/2020 01:40
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/10/2020 01:40
Benzene	ND	0.0050	1	03/10/2020 01:40
Bromobenzene	ND	0.0050	1	03/10/2020 01:40
Bromochloromethane	ND	0.0050	1	03/10/2020 01:40
Bromodichloromethane	ND	0.0050	1	03/10/2020 01:40
Bromoform	ND	0.0050	1	03/10/2020 01:40
Bromomethane	ND	0.0050	1	03/10/2020 01:40
2-Butanone (MEK)	ND	0.050	1	03/10/2020 01:40
t-Butyl alcohol (TBA)	ND	0.050	1	03/10/2020 01:40
n-Butyl benzene	ND	0.0050	1	03/10/2020 01:40
sec-Butyl benzene	ND	0.0050	1	03/10/2020 01:40
tert-Butyl benzene	ND	0.0050	1	03/10/2020 01:40
Carbon Disulfide	ND	0.0050	1	03/10/2020 01:40
Carbon Tetrachloride	ND	0.0050	1	03/10/2020 01:40
Chlorobenzene	ND	0.0050	1	03/10/2020 01:40
Chloroethane	ND	0.0050	1	03/10/2020 01:40
Chloroform	ND	0.0050	1	03/10/2020 01:40
Chloromethane	ND	0.0050	1	03/10/2020 01:40
2-Chlorotoluene	ND	0.0050	1	03/10/2020 01:40
4-Chlorotoluene	ND	0.0050	1	03/10/2020 01:40
Dibromochloromethane	ND	0.0050	1	03/10/2020 01:40
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/10/2020 01:40
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/10/2020 01:40
Dibromomethane	ND	0.0050	1	03/10/2020 01:40
1,2-Dichlorobenzene	ND	0.0050	1	03/10/2020 01:40
1,3-Dichlorobenzene	ND	0.0050	1	03/10/2020 01:40
1,4-Dichlorobenzene	ND	0.0050	1	03/10/2020 01:40
Dichlorodifluoromethane	ND	0.0050	1	03/10/2020 01:40
1,1-Dichloroethane	ND	0.0050	1	03/10/2020 01:40
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/10/2020 01:40
1,1-Dichloroethene	ND	0.0050	1	03/10/2020 01:40
cis-1,2-Dichloroethene	ND	0.0050	1	03/10/2020 01:40
trans-1,2-Dichloroethene	ND	0.0050	1	03/10/2020 01:40
1,2-Dichloropropane	ND	0.0050	1	03/10/2020 01:40
1,3-Dichloropropane	ND	0.0050	1	03/10/2020 01:40
2,2-Dichloropropane	ND	0.0050	1	03/10/2020 01:40

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5030B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8260B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-13A	2003206-014A	Soil	03/04/2020 11:05	GC16 03092030.D	195146

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/10/2020 01:40
cis-1,3-Dichloropropene	ND	0.0050	1	03/10/2020 01:40
trans-1,3-Dichloropropene	ND	0.0050	1	03/10/2020 01:40
Diisopropyl ether (DIPE)	ND	0.0050	1	03/10/2020 01:40
Ethylbenzene	ND	0.0050	1	03/10/2020 01:40
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/10/2020 01:40
Freon 113	ND	0.0050	1	03/10/2020 01:40
Hexachlorobutadiene	ND	0.0050	1	03/10/2020 01:40
Hexachloroethane	ND	0.0050	1	03/10/2020 01:40
2-Hexanone	ND	0.0050	1	03/10/2020 01:40
Isopropylbenzene	ND	0.0050	1	03/10/2020 01:40
4-Isopropyl toluene	ND	0.0050	1	03/10/2020 01:40
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/10/2020 01:40
Methylene chloride	ND	0.020	1	03/10/2020 01:40
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/10/2020 01:40
Naphthalene	ND	0.0050	1	03/10/2020 01:40
n-Propyl benzene	ND	0.0050	1	03/10/2020 01:40
Styrene	ND	0.0050	1	03/10/2020 01:40
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/10/2020 01:40
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/10/2020 01:40
Tetrachloroethene	ND	0.0050	1	03/10/2020 01:40
Toluene	ND	0.0050	1	03/10/2020 01:40
1,2,3-Trichlorobenzene	ND	0.0050	1	03/10/2020 01:40
1,2,4-Trichlorobenzene	ND	0.0050	1	03/10/2020 01:40
1,1,1-Trichloroethane	ND	0.0050	1	03/10/2020 01:40
1,1,2-Trichloroethane	ND	0.0050	1	03/10/2020 01:40
Trichloroethene	ND	0.0050	1	03/10/2020 01:40
Trichlorofluoromethane	ND	0.0050	1	03/10/2020 01:40
1,2,3-Trichloropropane	ND	0.0050	1	03/10/2020 01:40
1,2,4-Trimethylbenzene	ND	0.0050	1	03/10/2020 01:40
1,3,5-Trimethylbenzene	ND	0.0050	1	03/10/2020 01:40
Vinyl Chloride	ND	0.0050	1	03/10/2020 01:40
m,p-Xylene	ND	0.0050	1	03/10/2020 01:40
o-Xylene	ND	0.0050	1	03/10/2020 01:40
Xylenes, Total	ND	0.0050	1	03/10/2020 01:40

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5030B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8260B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-13A	2003206-014A	Soil	03/04/2020 11:05	GC16 03092030.D	195146

Analytes	Result	RL	DF	Date Analyzed

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	108		66-116	03/10/2020 01:40
Toluene-d8	119	S	86-110	03/10/2020 01:40
4-BFB	101		71-114	03/10/2020 01:40
Benzene-d6	80		62-122	03/10/2020 01:40
Ethylbenzene-d10	92		69-130	03/10/2020 01:40
1,2-DCB-d4	70		55-108	03/10/2020 01:40

Analyst(s): KF Analytical Comments: c2

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5030B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8260B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-13B	2003206-015A	Soil	03/04/2020 11:10	GC16 03092031.D	195146

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/10/2020 02:20
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/10/2020 02:20
Benzene	ND	0.0050	1	03/10/2020 02:20
Bromobenzene	ND	0.0050	1	03/10/2020 02:20
Bromochloromethane	ND	0.0050	1	03/10/2020 02:20
Bromodichloromethane	ND	0.0050	1	03/10/2020 02:20
Bromoform	ND	0.0050	1	03/10/2020 02:20
Bromomethane	ND	0.0050	1	03/10/2020 02:20
2-Butanone (MEK)	ND	0.050	1	03/10/2020 02:20
t-Butyl alcohol (TBA)	ND	0.050	1	03/10/2020 02:20
n-Butyl benzene	ND	0.0050	1	03/10/2020 02:20
sec-Butyl benzene	ND	0.0050	1	03/10/2020 02:20
tert-Butyl benzene	ND	0.0050	1	03/10/2020 02:20
Carbon Disulfide	ND	0.0050	1	03/10/2020 02:20
Carbon Tetrachloride	ND	0.0050	1	03/10/2020 02:20
Chlorobenzene	ND	0.0050	1	03/10/2020 02:20
Chloroethane	ND	0.0050	1	03/10/2020 02:20
Chloroform	ND	0.0050	1	03/10/2020 02:20
Chloromethane	ND	0.0050	1	03/10/2020 02:20
2-Chlorotoluene	ND	0.0050	1	03/10/2020 02:20
4-Chlorotoluene	ND	0.0050	1	03/10/2020 02:20
Dibromochloromethane	ND	0.0050	1	03/10/2020 02:20
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/10/2020 02:20
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/10/2020 02:20
Dibromomethane	ND	0.0050	1	03/10/2020 02:20
1,2-Dichlorobenzene	ND	0.0050	1	03/10/2020 02:20
1,3-Dichlorobenzene	ND	0.0050	1	03/10/2020 02:20
1,4-Dichlorobenzene	ND	0.0050	1	03/10/2020 02:20
Dichlorodifluoromethane	ND	0.0050	1	03/10/2020 02:20
1,1-Dichloroethane	ND	0.0050	1	03/10/2020 02:20
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/10/2020 02:20
1,1-Dichloroethene	ND	0.0050	1	03/10/2020 02:20
cis-1,2-Dichloroethene	ND	0.0050	1	03/10/2020 02:20
trans-1,2-Dichloroethene	ND	0.0050	1	03/10/2020 02:20
1,2-Dichloropropane	ND	0.0050	1	03/10/2020 02:20
1,3-Dichloropropane	ND	0.0050	1	03/10/2020 02:20
2,2-Dichloropropane	ND	0.0050	1	03/10/2020 02:20

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5030B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8260B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-13B	2003206-015A	Soil	03/04/2020 11:10	GC16 03092031.D	195146

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/10/2020 02:20
cis-1,3-Dichloropropene	ND	0.0050	1	03/10/2020 02:20
trans-1,3-Dichloropropene	ND	0.0050	1	03/10/2020 02:20
Diisopropyl ether (DIPE)	ND	0.0050	1	03/10/2020 02:20
Ethylbenzene	ND	0.0050	1	03/10/2020 02:20
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/10/2020 02:20
Freon 113	ND	0.0050	1	03/10/2020 02:20
Hexachlorobutadiene	ND	0.0050	1	03/10/2020 02:20
Hexachloroethane	ND	0.0050	1	03/10/2020 02:20
2-Hexanone	ND	0.0050	1	03/10/2020 02:20
Isopropylbenzene	ND	0.0050	1	03/10/2020 02:20
4-Isopropyl toluene	ND	0.0050	1	03/10/2020 02:20
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/10/2020 02:20
Methylene chloride	ND	0.020	1	03/10/2020 02:20
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/10/2020 02:20
Naphthalene	ND	0.0050	1	03/10/2020 02:20
n-Propyl benzene	ND	0.0050	1	03/10/2020 02:20
Styrene	ND	0.0050	1	03/10/2020 02:20
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/10/2020 02:20
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/10/2020 02:20
Tetrachloroethene	ND	0.0050	1	03/10/2020 02:20
Toluene	ND	0.0050	1	03/10/2020 02:20
1,2,3-Trichlorobenzene	ND	0.0050	1	03/10/2020 02:20
1,2,4-Trichlorobenzene	ND	0.0050	1	03/10/2020 02:20
1,1,1-Trichloroethane	ND	0.0050	1	03/10/2020 02:20
1,1,2-Trichloroethane	ND	0.0050	1	03/10/2020 02:20
Trichloroethene	ND	0.0050	1	03/10/2020 02:20
Trichlorofluoromethane	ND	0.0050	1	03/10/2020 02:20
1,2,3-Trichloropropane	ND	0.0050	1	03/10/2020 02:20
1,2,4-Trimethylbenzene	ND	0.0050	1	03/10/2020 02:20
1,3,5-Trimethylbenzene	ND	0.0050	1	03/10/2020 02:20
Vinyl Chloride	ND	0.0050	1	03/10/2020 02:20
m,p-Xylene	ND	0.0050	1	03/10/2020 02:20
o-Xylene	ND	0.0050	1	03/10/2020 02:20
Xylenes, Total	ND	0.0050	1	03/10/2020 02:20

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5030B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8260B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-13B	2003206-015A	Soil	03/04/2020 11:10	GC16 03092031.D	195146

Analytes	Result	RL	DF	Date Analyzed

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	108		66-116	03/10/2020 02:20
Toluene-d8	118	S	86-110	03/10/2020 02:20
4-BFB	99		71-114	03/10/2020 02:20
Benzene-d6	83		62-122	03/10/2020 02:20
Ethylbenzene-d10	104		69-130	03/10/2020 02:20
1,2-DCB-d4	75		55-108	03/10/2020 02:20

Analyst(s): KF Analytical Comments: c12

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5030B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8260B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-14A	2003206-016A	Soil	03/04/2020 11:15	GC16 03092032.D	195146

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/10/2020 02:59
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/10/2020 02:59
Benzene	ND	0.0050	1	03/10/2020 02:59
Bromobenzene	ND	0.0050	1	03/10/2020 02:59
Bromochloromethane	ND	0.0050	1	03/10/2020 02:59
Bromodichloromethane	ND	0.0050	1	03/10/2020 02:59
Bromoform	ND	0.0050	1	03/10/2020 02:59
Bromomethane	ND	0.0050	1	03/10/2020 02:59
2-Butanone (MEK)	ND	0.050	1	03/10/2020 02:59
t-Butyl alcohol (TBA)	ND	0.050	1	03/10/2020 02:59
n-Butyl benzene	ND	0.0050	1	03/10/2020 02:59
sec-Butyl benzene	ND	0.0050	1	03/10/2020 02:59
tert-Butyl benzene	ND	0.0050	1	03/10/2020 02:59
Carbon Disulfide	ND	0.0050	1	03/10/2020 02:59
Carbon Tetrachloride	ND	0.0050	1	03/10/2020 02:59
Chlorobenzene	ND	0.0050	1	03/10/2020 02:59
Chloroethane	ND	0.0050	1	03/10/2020 02:59
Chloroform	ND	0.0050	1	03/10/2020 02:59
Chloromethane	ND	0.0050	1	03/10/2020 02:59
2-Chlorotoluene	ND	0.0050	1	03/10/2020 02:59
4-Chlorotoluene	ND	0.0050	1	03/10/2020 02:59
Dibromochloromethane	ND	0.0050	1	03/10/2020 02:59
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/10/2020 02:59
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/10/2020 02:59
Dibromomethane	ND	0.0050	1	03/10/2020 02:59
1,2-Dichlorobenzene	ND	0.0050	1	03/10/2020 02:59
1,3-Dichlorobenzene	ND	0.0050	1	03/10/2020 02:59
1,4-Dichlorobenzene	ND	0.0050	1	03/10/2020 02:59
Dichlorodifluoromethane	ND	0.0050	1	03/10/2020 02:59
1,1-Dichloroethane	ND	0.0050	1	03/10/2020 02:59
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/10/2020 02:59
1,1-Dichloroethene	ND	0.0050	1	03/10/2020 02:59
cis-1,2-Dichloroethene	ND	0.0050	1	03/10/2020 02:59
trans-1,2-Dichloroethene	ND	0.0050	1	03/10/2020 02:59
1,2-Dichloropropane	ND	0.0050	1	03/10/2020 02:59
1,3-Dichloropropane	ND	0.0050	1	03/10/2020 02:59
2,2-Dichloropropane	ND	0.0050	1	03/10/2020 02:59

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5030B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8260B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-14A	2003206-016A	Soil	03/04/2020 11:15	GC16 03092032.D	195146

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/10/2020 02:59
cis-1,3-Dichloropropene	ND	0.0050	1	03/10/2020 02:59
trans-1,3-Dichloropropene	ND	0.0050	1	03/10/2020 02:59
Diisopropyl ether (DIPE)	ND	0.0050	1	03/10/2020 02:59
Ethylbenzene	ND	0.0050	1	03/10/2020 02:59
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/10/2020 02:59
Freon 113	ND	0.0050	1	03/10/2020 02:59
Hexachlorobutadiene	ND	0.0050	1	03/10/2020 02:59
Hexachloroethane	ND	0.0050	1	03/10/2020 02:59
2-Hexanone	ND	0.0050	1	03/10/2020 02:59
Isopropylbenzene	ND	0.0050	1	03/10/2020 02:59
4-Isopropyl toluene	ND	0.0050	1	03/10/2020 02:59
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/10/2020 02:59
Methylene chloride	ND	0.020	1	03/10/2020 02:59
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/10/2020 02:59
Naphthalene	ND	0.0050	1	03/10/2020 02:59
n-Propyl benzene	ND	0.0050	1	03/10/2020 02:59
Styrene	ND	0.0050	1	03/10/2020 02:59
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/10/2020 02:59
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/10/2020 02:59
Tetrachloroethene	ND	0.0050	1	03/10/2020 02:59
Toluene	ND	0.0050	1	03/10/2020 02:59
1,2,3-Trichlorobenzene	ND	0.0050	1	03/10/2020 02:59
1,2,4-Trichlorobenzene	ND	0.0050	1	03/10/2020 02:59
1,1,1-Trichloroethane	ND	0.0050	1	03/10/2020 02:59
1,1,2-Trichloroethane	ND	0.0050	1	03/10/2020 02:59
Trichloroethene	ND	0.0050	1	03/10/2020 02:59
Trichlorofluoromethane	ND	0.0050	1	03/10/2020 02:59
1,2,3-Trichloropropane	ND	0.0050	1	03/10/2020 02:59
1,2,4-Trimethylbenzene	ND	0.0050	1	03/10/2020 02:59
1,3,5-Trimethylbenzene	ND	0.0050	1	03/10/2020 02:59
Vinyl Chloride	ND	0.0050	1	03/10/2020 02:59
m,p-Xylene	ND	0.0050	1	03/10/2020 02:59
o-Xylene	ND	0.0050	1	03/10/2020 02:59
Xylenes, Total	ND	0.0050	1	03/10/2020 02:59

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5030B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8260B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-14A	2003206-016A	Soil	03/04/2020 11:15	GC16 03092032.D	195146

Analytes	Result	RL	DF	Date Analyzed

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	105		66-116	03/10/2020 02:59
Toluene-d8	119	S	86-110	03/10/2020 02:59
4-BFB	99		71-114	03/10/2020 02:59
Benzene-d6	74		62-122	03/10/2020 02:59
Ethylbenzene-d10	78		69-130	03/10/2020 02:59
1,2-DCB-d4	66		55-108	03/10/2020 02:59

Analyst(s): KF Analytical Comments: c2

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5030B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8260B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-14B	2003206-017A	Soil	03/04/2020 11:19	GC16 03092033.D	195146

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/10/2020 03:39
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/10/2020 03:39
Benzene	ND	0.0050	1	03/10/2020 03:39
Bromobenzene	ND	0.0050	1	03/10/2020 03:39
Bromochloromethane	ND	0.0050	1	03/10/2020 03:39
Bromodichloromethane	ND	0.0050	1	03/10/2020 03:39
Bromoform	ND	0.0050	1	03/10/2020 03:39
Bromomethane	ND	0.0050	1	03/10/2020 03:39
2-Butanone (MEK)	ND	0.050	1	03/10/2020 03:39
t-Butyl alcohol (TBA)	ND	0.050	1	03/10/2020 03:39
n-Butyl benzene	ND	0.0050	1	03/10/2020 03:39
sec-Butyl benzene	ND	0.0050	1	03/10/2020 03:39
tert-Butyl benzene	ND	0.0050	1	03/10/2020 03:39
Carbon Disulfide	ND	0.0050	1	03/10/2020 03:39
Carbon Tetrachloride	ND	0.0050	1	03/10/2020 03:39
Chlorobenzene	ND	0.0050	1	03/10/2020 03:39
Chloroethane	ND	0.0050	1	03/10/2020 03:39
Chloroform	ND	0.0050	1	03/10/2020 03:39
Chloromethane	ND	0.0050	1	03/10/2020 03:39
2-Chlorotoluene	ND	0.0050	1	03/10/2020 03:39
4-Chlorotoluene	ND	0.0050	1	03/10/2020 03:39
Dibromochloromethane	ND	0.0050	1	03/10/2020 03:39
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/10/2020 03:39
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/10/2020 03:39
Dibromomethane	ND	0.0050	1	03/10/2020 03:39
1,2-Dichlorobenzene	ND	0.0050	1	03/10/2020 03:39
1,3-Dichlorobenzene	ND	0.0050	1	03/10/2020 03:39
1,4-Dichlorobenzene	ND	0.0050	1	03/10/2020 03:39
Dichlorodifluoromethane	ND	0.0050	1	03/10/2020 03:39
1,1-Dichloroethane	ND	0.0050	1	03/10/2020 03:39
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/10/2020 03:39
1,1-Dichloroethene	ND	0.0050	1	03/10/2020 03:39
cis-1,2-Dichloroethene	ND	0.0050	1	03/10/2020 03:39
trans-1,2-Dichloroethene	ND	0.0050	1	03/10/2020 03:39
1,2-Dichloropropane	ND	0.0050	1	03/10/2020 03:39
1,3-Dichloropropane	ND	0.0050	1	03/10/2020 03:39
2,2-Dichloropropane	ND	0.0050	1	03/10/2020 03:39

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5030B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8260B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-14B	2003206-017A	Soil	03/04/2020 11:19	GC16 03092033.D	195146

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/10/2020 03:39
cis-1,3-Dichloropropene	ND	0.0050	1	03/10/2020 03:39
trans-1,3-Dichloropropene	ND	0.0050	1	03/10/2020 03:39
Diisopropyl ether (DIPE)	ND	0.0050	1	03/10/2020 03:39
Ethylbenzene	ND	0.0050	1	03/10/2020 03:39
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/10/2020 03:39
Freon 113	ND	0.0050	1	03/10/2020 03:39
Hexachlorobutadiene	ND	0.0050	1	03/10/2020 03:39
Hexachloroethane	ND	0.0050	1	03/10/2020 03:39
2-Hexanone	ND	0.0050	1	03/10/2020 03:39
Isopropylbenzene	ND	0.0050	1	03/10/2020 03:39
4-Isopropyl toluene	ND	0.0050	1	03/10/2020 03:39
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/10/2020 03:39
Methylene chloride	ND	0.020	1	03/10/2020 03:39
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/10/2020 03:39
Naphthalene	ND	0.0050	1	03/10/2020 03:39
n-Propyl benzene	ND	0.0050	1	03/10/2020 03:39
Styrene	ND	0.0050	1	03/10/2020 03:39
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/10/2020 03:39
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/10/2020 03:39
Tetrachloroethene	ND	0.0050	1	03/10/2020 03:39
Toluene	ND	0.0050	1	03/10/2020 03:39
1,2,3-Trichlorobenzene	ND	0.0050	1	03/10/2020 03:39
1,2,4-Trichlorobenzene	ND	0.0050	1	03/10/2020 03:39
1,1,1-Trichloroethane	ND	0.0050	1	03/10/2020 03:39
1,1,2-Trichloroethane	ND	0.0050	1	03/10/2020 03:39
Trichloroethene	ND	0.0050	1	03/10/2020 03:39
Trichlorofluoromethane	ND	0.0050	1	03/10/2020 03:39
1,2,3-Trichloropropane	ND	0.0050	1	03/10/2020 03:39
1,2,4-Trimethylbenzene	ND	0.0050	1	03/10/2020 03:39
1,3,5-Trimethylbenzene	ND	0.0050	1	03/10/2020 03:39
Vinyl Chloride	ND	0.0050	1	03/10/2020 03:39
m,p-Xylene	ND	0.0050	1	03/10/2020 03:39
o-Xylene	ND	0.0050	1	03/10/2020 03:39
Xylenes, Total	ND	0.0050	1	03/10/2020 03:39

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5030B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8260B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-14B	**2003206-017A**	**Soil**	**03/04/2020 11:19**	**GC16 03092033.D**	**195146**

Analytes	Result	RL	DF	Date Analyzed

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	109		66-116	03/10/2020 03:39
Toluene-d8	118	S	86-110	03/10/2020 03:39
4-BFB	98		71-114	03/10/2020 03:39
Benzene-d6	83		62-122	03/10/2020 03:39
Ethylbenzene-d10	102		69-130	03/10/2020 03:39
1,2-DCB-d4	76		55-108	03/10/2020 03:39

Analyst(s): KF

Analytical Comments: c2

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3050B
Date Prepared:	03/06/2020-03/09/2020	**Analytical Method:**	SW6020
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-1	2003206-001A	Soil	03/04/2020 09:17	ICP-MS3 049SMPL.D	195212

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	**0.87**		0.50	1	03/10/2020 17:17
Arsenic	**8.5**		0.50	1	03/10/2020 17:17
Barium	**260**		5.0	1	03/10/2020 17:17
Beryllium	**0.55**		0.50	1	03/10/2020 17:17
Cadmium	**0.73**		0.25	1	03/10/2020 17:17
Chromium	**64**		0.50	1	03/10/2020 17:17
Cobalt	**11**		0.50	1	03/10/2020 17:17
Copper	**35**		0.50	1	03/10/2020 17:17
Lead	**56**		0.50	1	03/10/2020 17:17
Mercury	**0.19**	B	0.050	1	03/10/2020 17:17
Molybdenum	**0.76**		0.50	1	03/10/2020 17:17
Nickel	**78**		0.50	1	03/10/2020 17:17
Selenium	ND		0.50	1	03/10/2020 17:17
Silver	ND		0.50	1	03/10/2020 17:17
Thallium	ND		0.50	1	03/10/2020 17:17
Vanadium	**57**		0.50	1	03/10/2020 17:17
Zinc	**140**		5.0	1	03/10/2020 17:17

Surrogates	REC (%)	Limits	
Terbium	99	70-130	03/10/2020 17:17

Analyst(s): ND

(Cont.)

CA ELAP 1644 • NELAP 4033ORELAP

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3050B
Date Prepared:	03/06/2020-03/09/2020	**Analytical Method:**	SW6020
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-2	**2003206-002A**	**Soil**	**03/04/2020 09:19**	**ICP-MS4 274SMPL.d**	**195212**

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	**1.2**		0.50	1	03/07/2020 03:03
Arsenic	**6.5**		0.50	1	03/07/2020 03:03
Barium	**180**		5.0	1	03/07/2020 03:03
Beryllium	ND		0.50	1	03/07/2020 03:03
Cadmium	**0.57**		0.25	1	03/07/2020 03:03
Chromium	**45**		0.50	1	03/07/2020 03:03
Cobalt	**9.3**		0.50	1	03/07/2020 03:03
Copper	**28**		0.50	1	03/07/2020 03:03
Lead	**81**		0.50	1	03/07/2020 03:03
Mercury	**0.097**	B	0.050	1	03/07/2020 03:03
Molybdenum	ND		0.50	1	03/07/2020 03:03
Nickel	**64**		0.50	1	03/07/2020 03:03
Selenium	**1.2**		0.50	1	03/07/2020 03:03
Silver	ND		0.50	1	03/07/2020 03:03
Thallium	ND		0.50	1	03/07/2020 03:03
Vanadium	**40**		0.50	1	03/07/2020 03:03
Zinc	**110**		5.0	1	03/07/2020 03:03

Surrogates	REC (%)	Limits	
Terbium	98	70-130	03/07/2020 03:03

Analyst(s): ND

(Cont.)

CA ELAP 1644 • NELAP 4033ORELAP

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3050B
Date Prepared:	03/06/2020-03/09/2020	**Analytical Method:**	SW6020
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-3	2003206-003A	Soil	03/04/2020 09:26	ICP-MS4 275SMPL.d	195212

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	**2.2**		0.50	1	03/07/2020 03:07
Arsenic	**8.8**		0.50	1	03/07/2020 03:07
Barium	**220**		5.0	1	03/07/2020 03:07
Beryllium	**0.51**		0.50	1	03/07/2020 03:07
Cadmium	**2.6**		0.25	1	03/07/2020 03:07
Chromium	**77**		0.50	1	03/07/2020 03:07
Cobalt	**15**		0.50	1	03/07/2020 03:07
Copper	**66**		0.50	1	03/07/2020 03:07
Lead	**240**		0.50	1	03/07/2020 03:07
Mercury	**0.27**	B	0.050	1	03/07/2020 03:07
Molybdenum	**1.1**		0.50	1	03/07/2020 03:07
Nickel	**120**		0.50	1	03/07/2020 03:07
Selenium	**1.8**		0.50	1	03/07/2020 03:07
Silver	ND		0.50	1	03/07/2020 03:07
Thallium	ND		0.50	1	03/07/2020 03:07
Vanadium	**61**		0.50	1	03/07/2020 03:07
Zinc	**240**		5.0	1	03/07/2020 03:07

Surrogates	REC (%)	Limits	
Terbium	97	70-130	03/07/2020 03:07

Analyst(s): ND

(Cont.)

CA ELAP 1644 • NELAP 4033ORELAP

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3050B
Date Prepared:	03/06/2020-03/09/2020	**Analytical Method:**	SW6020
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-4	**2003206-004A**	**Soil**	**03/04/2020 09:34**	**ICP-MS4 276SMPL.d**	**195212**

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	**1.1**		0.50	1	03/07/2020 03:11
Arsenic	**6.5**		0.50	1	03/07/2020 03:11
Barium	**160**		5.0	1	03/07/2020 03:11
Beryllium	ND		0.50	1	03/07/2020 03:11
Cadmium	**0.93**		0.25	1	03/07/2020 03:11
Chromium	**71**		0.50	1	03/07/2020 03:11
Cobalt	**13**		0.50	1	03/07/2020 03:11
Copper	**40**		0.50	1	03/07/2020 03:11
Lead	**94**		0.50	1	03/07/2020 03:11
Mercury	**0.098**	B	0.050	1	03/07/2020 03:11
Molybdenum	**0.53**		0.50	1	03/07/2020 03:11
Nickel	**110**		0.50	1	03/07/2020 03:11
Selenium	**1.3**		0.50	1	03/07/2020 03:11
Silver	ND		0.50	1	03/07/2020 03:11
Thallium	ND		0.50	1	03/07/2020 03:11
Vanadium	**51**		0.50	1	03/07/2020 03:11
Zinc	**130**		5.0	1	03/07/2020 03:11

Surrogates	REC (%)	Limits	
Terbium	95	70-130	03/07/2020 03:11

Analyst(s): ND

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3050B
Date Prepared:	03/06/2020-03/09/2020	**Analytical Method:**	SW6020
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-5	**2003206-005A**	**Soil**	**03/04/2020 09:37**	**ICP-MS4 277SMPL.d**	**195212**

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	**1.1**		0.50	1	03/07/2020 03:15
Arsenic	**7.8**		0.50	1	03/07/2020 03:15
Barium	**180**		5.0	1	03/07/2020 03:15
Beryllium	ND		0.50	1	03/07/2020 03:15
Cadmium	**0.64**		0.25	1	03/07/2020 03:15
Chromium	**55**		0.50	1	03/07/2020 03:15
Cobalt	**13**		0.50	1	03/07/2020 03:15
Copper	**33**		0.50	1	03/07/2020 03:15
Lead	**67**		0.50	1	03/07/2020 03:15
Mercury	**0.079**	B	0.050	1	03/07/2020 03:15
Molybdenum	**1.3**		0.50	1	03/07/2020 03:15
Nickel	**73**		0.50	1	03/07/2020 03:15
Selenium	**1.2**		0.50	1	03/07/2020 03:15
Silver	**1.6**		0.50	1	03/07/2020 03:15
Thallium	ND		0.50	1	03/07/2020 03:15
Vanadium	**45**		0.50	1	03/07/2020 03:15
Zinc	**120**		5.0	1	03/07/2020 03:15

Surrogates	REC (%)	Limits	
Terbium	98	70-130	03/07/2020 03:15

Analyst(s): ND

(Cont.)

CA ELAP 1644 • NELAP 4033ORELAP

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3050B
Date Prepared:	03/06/2020-03/09/2020	**Analytical Method:**	SW6020
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-6	**2003206-006A**	**Soil**	**03/04/2020 09:46**	**ICP-MS4 278SMPL.d**	**195212**

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	**2.3**		0.50	1	03/07/2020 03:19
Arsenic	**8.4**		0.50	1	03/07/2020 03:19
Barium	**230**		5.0	1	03/07/2020 03:19
Beryllium	**0.56**		0.50	1	03/07/2020 03:19
Cadmium	**2.3**		0.25	1	03/07/2020 03:19
Chromium	**91**		0.50	1	03/07/2020 03:19
Cobalt	**16**		0.50	1	03/07/2020 03:19
Copper	**70**		0.50	1	03/07/2020 03:19
Lead	**230**		0.50	1	03/07/2020 03:19
Mercury	**0.16**	B	0.050	1	03/07/2020 03:19
Molybdenum	**1.1**		0.50	1	03/07/2020 03:19
Nickel	**130**		0.50	1	03/07/2020 03:19
Selenium	**1.9**		0.50	1	03/07/2020 03:19
Silver	ND		0.50	1	03/07/2020 03:19
Thallium	ND		0.50	1	03/07/2020 03:19
Vanadium	**76**		0.50	1	03/07/2020 03:19
Zinc	**320**		5.0	1	03/07/2020 03:19

Surrogates	REC (%)	Limits	
Terbium	101	70-130	03/07/2020 03:19

Analyst(s): ND

(Cont.)

CA ELAP 1644 • NELAP 4033ORELAP

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3050B
Date Prepared:	03/06/2020-03/09/2020	**Analytical Method:**	SW6020
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-7	**2003206-007A**	**Soil**	**03/04/2020 09:54**	**ICP-MS4 282SMPL.d**	**195212**

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	**1.6**		0.50	1	03/07/2020 03:34
Arsenic	**6.3**		0.50	1	03/07/2020 03:34
Barium	**170**		5.0	1	03/07/2020 03:34
Beryllium	ND		0.50	1	03/07/2020 03:34
Cadmium	**1.5**		0.25	1	03/07/2020 03:34
Chromium	**73**		0.50	1	03/07/2020 03:34
Cobalt	**12**		0.50	1	03/07/2020 03:34
Copper	**53**		0.50	1	03/07/2020 03:34
Lead	**140**		0.50	1	03/07/2020 03:34
Mercury	**0.11**	B	0.050	1	03/07/2020 03:34
Molybdenum	**0.95**		0.50	1	03/07/2020 03:34
Nickel	**91**		0.50	1	03/07/2020 03:34
Selenium	**1.4**		0.50	1	03/07/2020 03:34
Silver	ND		0.50	1	03/07/2020 03:34
Thallium	ND		0.50	1	03/07/2020 03:34
Vanadium	**55**		0.50	1	03/07/2020 03:34
Zinc	**190**		5.0	1	03/07/2020 03:34

Surrogates	REC (%)	Limits	
Terbium	97	70-130	03/07/2020 03:34

Analyst(s): ND

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3050B
Date Prepared:	03/06/2020-03/09/2020	**Analytical Method:**	SW6020
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-8	**2003206-008A**	**Soil**	**03/04/2020 10:07**	**ICP-MS4 283SMPL.d**	**195212**

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	**2.4**		0.50	1	03/07/2020 03:38
Arsenic	**6.5**		0.50	1	03/07/2020 03:38
Barium	**160**		5.0	1	03/07/2020 03:38
Beryllium	ND		0.50	1	03/07/2020 03:38
Cadmium	**1.6**		0.25	1	03/07/2020 03:38
Chromium	**310**		0.50	1	03/07/2020 03:38
Cobalt	**28**		0.50	1	03/07/2020 03:38
Copper	**180**		0.50	1	03/07/2020 03:38
Lead	**700**		2.5	5	03/09/2020 16:06
Mercury	**0.081**	B	0.050	1	03/07/2020 03:38
Molybdenum	**0.97**		0.50	1	03/07/2020 03:38
Nickel	**480**		2.5	5	03/09/2020 16:06
Selenium	**1.1**		0.50	1	03/07/2020 03:38
Silver	**1.5**		0.50	1	03/07/2020 03:38
Thallium	ND		0.50	1	03/07/2020 03:38
Vanadium	**55**		0.50	1	03/07/2020 03:38
Zinc	**220**		5.0	1	03/07/2020 03:38

Surrogates	REC (%)	Limits	
Terbium	97	70-130	03/07/2020 03:38

Analyst(s): ND

(Cont.)

CA ELAP 1644 • NELAP 4033ORELAP

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3050B
Date Prepared:	03/06/2020-03/09/2020	**Analytical Method:**	SW6020
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-9	2003206-009A	Soil	03/04/2020 10:12	ICP-MS2 029SMPL.D	195212

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	**1.3**		0.50	1	03/09/2020 16:24
Arsenic	**9.5**		0.50	1	03/09/2020 16:24
Barium	**230**		5.0	1	03/09/2020 16:24
Beryllium	ND		0.50	1	03/09/2020 16:24
Cadmium	**1.6**		0.25	1	03/09/2020 16:24
Chromium	**210**		0.50	1	03/09/2020 16:24
Cobalt	**22**		0.50	1	03/09/2020 16:24
Copper	**67**		0.50	1	03/09/2020 16:24
Lead	**110**		0.50	1	03/09/2020 16:24
Mercury	**0.11**	B	0.050	1	03/09/2020 16:24
Molybdenum	**1.2**		0.50	1	03/09/2020 16:24
Nickel	**210**		0.50	1	03/09/2020 16:24
Selenium	ND		0.50	1	03/09/2020 16:24
Silver	ND		0.50	1	03/09/2020 16:24
Thallium	ND		0.50	1	03/09/2020 16:24
Vanadium	**83**		0.50	1	03/09/2020 16:24
Zinc	**210**		5.0	1	03/09/2020 16:24

Surrogates	REC (%)	Limits	
Terbium	127	70-130	03/09/2020 16:24

Analyst(s): ND

(Cont.)

CA ELAP 1644 • NELAP 4033ORELAP

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3050B
Date Prepared:	03/06/2020-03/09/2020	**Analytical Method:**	SW6020
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-10	2003206-010A	Soil	03/04/2020 10:29	ICP-MS2 028SMPL.D	195212

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	**2.4**		0.50	1	03/09/2020 16:18
Arsenic	**5.7**		0.50	1	03/09/2020 16:18
Barium	**170**		5.0	1	03/09/2020 16:18
Beryllium	ND		0.50	1	03/09/2020 16:18
Cadmium	**3.7**		0.25	1	03/09/2020 16:18
Chromium	**57**		0.50	1	03/09/2020 16:18
Cobalt	**9.4**		0.50	1	03/09/2020 16:18
Copper	**59**		0.50	1	03/09/2020 16:18
Lead	**290**		0.50	1	03/09/2020 16:18
Mercury	**0.17**	B	0.050	1	03/09/2020 16:18
Molybdenum	**0.88**		0.50	1	03/09/2020 16:18
Nickel	**76**		0.50	1	03/09/2020 16:18
Selenium	ND		0.50	1	03/09/2020 16:18
Silver	ND		0.50	1	03/09/2020 16:18
Thallium	ND		0.50	1	03/09/2020 16:18
Vanadium	**53**		0.50	1	03/09/2020 16:18
Zinc	**320**		5.0	1	03/09/2020 16:18

Surrogates	REC (%)	Limits	
Terbium	94	70-130	03/09/2020 16:18

Analyst(s): ND

(Cont.)

CA ELAP 1644 • NELAP 4033ORELAP

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3050B
Date Prepared:	03/06/2020-03/09/2020	**Analytical Method:**	SW6020
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-11	2003206-011A	Soil	03/04/2020 10:39	ICP-MS2 030SMPL.D	195212

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	**2.2**		0.50	1	03/09/2020 16:30
Arsenic	**7.4**		0.50	1	03/09/2020 16:30
Barium	**230**		5.0	1	03/09/2020 16:30
Beryllium	ND		0.50	1	03/09/2020 16:30
Cadmium	**2.3**		0.25	1	03/09/2020 16:30
Chromium	**64**		0.50	1	03/09/2020 16:30
Cobalt	**10**		0.50	1	03/09/2020 16:30
Copper	**63**		0.50	1	03/09/2020 16:30
Lead	**190**		0.50	1	03/09/2020 16:30
Mercury	**0.083**	B	0.050	1	03/09/2020 16:30
Molybdenum	**0.85**		0.50	1	03/09/2020 16:30
Nickel	**91**		0.50	1	03/09/2020 16:30
Selenium	ND		0.50	1	03/09/2020 16:30
Silver	ND		0.50	1	03/09/2020 16:30
Thallium	ND		0.50	1	03/09/2020 16:30
Vanadium	**54**		0.50	1	03/09/2020 16:30
Zinc	**290**		5.0	1	03/09/2020 16:30

Surrogates	REC (%)	Limits	
Terbium	95	70-130	03/09/2020 16:30

Analyst(s): ND

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3050B
Date Prepared:	03/06/2020-03/09/2020	**Analytical Method:**	SW6020
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-12A	2003206-012A	Soil	03/04/2020 10:53	ICP-MS2 034SMPL.D	195212

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	**0.80**		0.50	1	03/09/2020 16:54
Arsenic	**6.9**		0.50	1	03/09/2020 16:54
Barium	**180**		5.0	1	03/09/2020 16:54
Beryllium	ND		0.50	1	03/09/2020 16:54
Cadmium	ND		0.25	1	03/09/2020 16:54
Chromium	**67**		0.50	1	03/09/2020 16:54
Cobalt	**12**		0.50	1	03/09/2020 16:54
Copper	**36**		0.50	1	03/09/2020 16:54
Lead	**81**		0.50	1	03/09/2020 16:54
Mercury	**0.31**	B	0.050	1	03/09/2020 16:54
Molybdenum	**1.5**		0.50	1	03/09/2020 16:54
Nickel	**140**		0.50	1	03/09/2020 16:54
Selenium	ND		0.50	1	03/09/2020 16:54
Silver	**6.7**		0.50	1	03/09/2020 16:54
Thallium	ND		0.50	1	03/09/2020 16:54
Vanadium	**53**		0.50	1	03/09/2020 16:54
Zinc	**120**		5.0	1	03/09/2020 16:54

Surrogates	REC (%)	Limits	
Terbium	97	70-130	03/09/2020 16:54

Analyst(s): MIG

(Cont.)

CA ELAP 1644 • NELAP 4033ORELAP

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3050B
Date Prepared:	03/06/2020-03/09/2020	**Analytical Method:**	SW6020
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-12B	2003206-013A	Soil	03/04/2020 10:55	ICP-MS2 035SMPL.D	195212

Analytes	Result	RL	DF	Date Analyzed
Antimony	**0.54**	0.50	1	03/09/2020 17:00
Arsenic	**5.4**	0.50	1	03/09/2020 17:00
Barium	**150**	5.0	1	03/09/2020 17:00
Beryllium	ND	0.50	1	03/09/2020 17:00
Cadmium	ND	0.25	1	03/09/2020 17:00
Chromium	**41**	0.50	1	03/09/2020 17:00
Cobalt	**8.7**	0.50	1	03/09/2020 17:00
Copper	**22**	0.50	1	03/09/2020 17:00
Lead	**16**	0.50	1	03/09/2020 17:00
Mercury	ND	0.050	1	03/09/2020 17:00
Molybdenum	**0.51**	0.50	1	03/09/2020 17:00
Nickel	**58**	0.50	1	03/09/2020 17:00
Selenium	ND	0.50	1	03/09/2020 17:00
Silver	ND	0.50	1	03/09/2020 17:00
Thallium	ND	0.50	1	03/09/2020 17:00
Vanadium	**35**	0.50	1	03/09/2020 17:00
Zinc	**74**	5.0	1	03/09/2020 17:00

Surrogates	REC (%)	Limits	
Terbium	93	70-130	03/09/2020 17:00

Analyst(s): MIG

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3050B
Date Prepared:	03/06/2020-03/09/2020	**Analytical Method:**	SW6020
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-13A	2003206-014A	Soil	03/04/2020 11:05	ICP-MS4 1414SMPL.d	195212

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	**0.78**		0.50	1	03/09/2020 21:40
Arsenic	**5.3**		0.50	1	03/09/2020 21:40
Barium	**140**		5.0	1	03/09/2020 21:40
Beryllium	ND		0.50	1	03/09/2020 21:40
Cadmium	**0.80**		0.25	1	03/09/2020 21:40
Chromium	**75**		0.50	1	03/09/2020 21:40
Cobalt	**12**		0.50	1	03/09/2020 21:40
Copper	**37**		0.50	1	03/09/2020 21:40
Lead	**59**		0.50	1	03/09/2020 21:40
Mercury	**0.077**	B	0.050	1	03/09/2020 21:40
Molybdenum	**1.2**		0.50	1	03/09/2020 21:40
Nickel	**100**		0.50	1	03/09/2020 21:40
Selenium	**0.87**		0.50	1	03/09/2020 21:40
Silver	ND		0.50	1	03/09/2020 21:40
Thallium	ND		0.50	1	03/09/2020 21:40
Vanadium	**58**		0.50	1	03/09/2020 21:40
Zinc	**130**		5.0	1	03/09/2020 21:40

Surrogates	REC (%)	Limits	
Terbium	102	70-130	03/09/2020 21:40

Analyst(s): DB

(Cont.)

CA ELAP 1644 • NELAP 4033ORELAP

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3050B
Date Prepared:	03/06/2020-03/09/2020	**Analytical Method:**	SW6020
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-13B	**2003206-015A**	**Soil**	**03/04/2020 11:10**	**ICP-MS3 050SMPL.D**	**195291**

Analytes	Result	RL	DF	Date Analyzed
Antimony	**0.56**	0.50	1	03/10/2020 17:23
Arsenic	**5.4**	0.50	1	03/10/2020 17:23
Barium	**180**	5.0	1	03/10/2020 17:23
Beryllium	ND	0.50	1	03/10/2020 17:23
Cadmium	ND	0.25	1	03/10/2020 17:23
Chromium	**55**	0.50	1	03/10/2020 17:23
Cobalt	**11**	0.50	1	03/10/2020 17:23
Copper	**35**	0.50	1	03/10/2020 17:23
Lead	**44**	0.50	1	03/10/2020 17:23
Mercury	**0.061**	0.050	1	03/10/2020 17:23
Molybdenum	**1.0**	0.50	1	03/10/2020 17:23
Nickel	**65**	0.50	1	03/10/2020 17:23
Selenium	ND	0.50	1	03/10/2020 17:23
Silver	ND	0.50	1	03/10/2020 17:23
Thallium	ND	0.50	1	03/10/2020 17:23
Vanadium	**52**	0.50	1	03/10/2020 17:23
Zinc	**86**	5.0	1	03/10/2020 17:23

Surrogates	REC (%)	Limits	
Terbium	102	70-130	03/10/2020 17:23

Analyst(s): ND

(Cont.)

CA ELAP 1644 • NELAP 4033ORELAP

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3050B
Date Prepared:	03/06/2020-03/09/2020	**Analytical Method:**	SW6020
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-14A	**2003206-016A**	**Soil**	**03/04/2020 11:15**	**ICP-MS3 051SMPL.D**	**195291**

Analytes	Result	RL	DF	Date Analyzed
Antimony	**0.87**	0.50	1	03/10/2020 17:29
Arsenic	**9.5**	0.50	1	03/10/2020 17:29
Barium	**140**	5.0	1	03/10/2020 17:29
Beryllium	ND	0.50	1	03/10/2020 17:29
Cadmium	**0.59**	0.25	1	03/10/2020 17:29
Chromium	**70**	0.50	1	03/10/2020 17:29
Cobalt	**14**	0.50	1	03/10/2020 17:29
Copper	**37**	0.50	1	03/10/2020 17:29
Lead	**52**	0.50	1	03/10/2020 17:29
Mercury	**0.066**	0.050	1	03/10/2020 17:29
Molybdenum	**1.7**	0.50	1	03/10/2020 17:29
Nickel	**91**	0.50	1	03/10/2020 17:29
Selenium	ND	0.50	1	03/10/2020 17:29
Silver	ND	0.50	1	03/10/2020 17:29
Thallium	ND	0.50	1	03/10/2020 17:29
Vanadium	**66**	0.50	1	03/10/2020 17:29
Zinc	**120**	5.0	1	03/10/2020 17:29

Surrogates	REC (%)	Limits	
Terbium	104	70-130	03/10/2020 17:29

Analyst(s): ND

(Cont.)

CA ELAP 1644 • NELAP 4033ORELAP

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3050B
Date Prepared:	03/06/2020-03/09/2020	**Analytical Method:**	SW6020
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-14B	2003206-017A	Soil	03/04/2020 11:19	ICP-MS4 1440SMPL.d	195291

Analytes	Result	RL	DF	Date Analyzed
Antimony	**0.80**	0.50	1	03/09/2020 23:21
Arsenic	**8.3**	0.50	1	03/09/2020 23:21
Barium	**200**	5.0	1	03/09/2020 23:21
Beryllium	ND	0.50	1	03/09/2020 23:21
Cadmium	ND	0.25	1	03/09/2020 23:21
Chromium	**52**	0.50	1	03/09/2020 23:21
Cobalt	**12**	0.50	1	03/09/2020 23:21
Copper	**35**	0.50	1	03/09/2020 23:21
Lead	**50**	0.50	1	03/09/2020 23:21
Mercury	**0.072**	0.050	1	03/09/2020 23:21
Molybdenum	**0.92**	0.50	1	03/09/2020 23:21
Nickel	**74**	0.50	1	03/09/2020 23:21
Selenium	**1.0**	0.50	1	03/09/2020 23:21
Silver	ND	0.50	1	03/09/2020 23:21
Thallium	ND	0.50	1	03/09/2020 23:21
Vanadium	**50**	0.50	1	03/09/2020 23:21
Zinc	**80**	5.0	1	03/09/2020 23:21

Surrogates	REC (%)	Limits	
Terbium	91	70-130	03/09/2020 23:21

Analyst(s): DB

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5035
Date Prepared:	03/05/2020	**Analytical Method:**	SW8021B/8015Bm
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-1	2003206-001A	Soil	03/04/2020 09:17	GC19 03052025.D	195147

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/06/2020 01:01
MTBE	---	0.050	1	03/06/2020 01:01
Benzene	---	0.0050	1	03/06/2020 01:01
Toluene	---	0.0050	1	03/06/2020 01:01
Ethylbenzene	---	0.0050	1	03/06/2020 01:01
m,p-Xylene	---	0.010	1	03/06/2020 01:01
o-Xylene	---	0.0050	1	03/06/2020 01:01
Xylenes	---	0.0050	1	03/06/2020 01:01

Surrogates	REC (%)	Limits	
2-Fluorotoluene	100	62-126	03/06/2020 01:01

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-2	2003206-002A	Soil	03/04/2020 09:19	GC19 03052027.D	195147

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/06/2020 02:01
MTBE	---	0.050	1	03/06/2020 02:01
Benzene	---	0.0050	1	03/06/2020 02:01
Toluene	---	0.0050	1	03/06/2020 02:01
Ethylbenzene	---	0.0050	1	03/06/2020 02:01
m,p-Xylene	---	0.010	1	03/06/2020 02:01
o-Xylene	---	0.0050	1	03/06/2020 02:01
Xylenes	---	0.0050	1	03/06/2020 02:01

Surrogates	REC (%)	Limits	
2-Fluorotoluene	101	62-126	03/06/2020 02:01

Analyst(s): IA

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5035
Date Prepared:	03/05/2020	**Analytical Method:**	SW8021B/8015Bm
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-3	2003206-003A	Soil	03/04/2020 09:26	GC19 03052029.D	195147

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/06/2020 03:00
MTBE	---	0.050	1	03/06/2020 03:00
Benzene	---	0.0050	1	03/06/2020 03:00
Toluene	---	0.0050	1	03/06/2020 03:00
Ethylbenzene	---	0.0050	1	03/06/2020 03:00
m,p-Xylene	---	0.010	1	03/06/2020 03:00
o-Xylene	---	0.0050	1	03/06/2020 03:00
Xylenes	---	0.0050	1	03/06/2020 03:00

Surrogates	REC (%)	Limits	
2-Fluorotoluene	101	62-126	03/06/2020 03:00

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-4	2003206-004A	Soil	03/04/2020 09:34	GC19 03052030.D	195147

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/06/2020 03:30
MTBE	---	0.050	1	03/06/2020 03:30
Benzene	---	0.0050	1	03/06/2020 03:30
Toluene	---	0.0050	1	03/06/2020 03:30
Ethylbenzene	---	0.0050	1	03/06/2020 03:30
m,p-Xylene	---	0.010	1	03/06/2020 03:30
o-Xylene	---	0.0050	1	03/06/2020 03:30
Xylenes	---	0.0050	1	03/06/2020 03:30

Surrogates	REC (%)	Limits	
2-Fluorotoluene	104	62-126	03/06/2020 03:30

Analyst(s): IA

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5035
Date Prepared:	03/05/2020	**Analytical Method:**	SW8021B/8015Bm
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-5	2003206-005A	Soil	03/04/2020 09:37	GC19 03052031.D	195147

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/06/2020 03:59
MTBE	---	0.050	1	03/06/2020 03:59
Benzene	---	0.0050	1	03/06/2020 03:59
Toluene	---	0.0050	1	03/06/2020 03:59
Ethylbenzene	---	0.0050	1	03/06/2020 03:59
m,p-Xylene	---	0.010	1	03/06/2020 03:59
o-Xylene	---	0.0050	1	03/06/2020 03:59
Xylenes	---	0.0050	1	03/06/2020 03:59

Surrogates	REC (%)	Limits	
2-Fluorotoluene	107	62-126	03/06/2020 03:59

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-6	2003206-006A	Soil	03/04/2020 09:46	GC19 03052032.D	195147

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/06/2020 04:29
MTBE	---	0.050	1	03/06/2020 04:29
Benzene	---	0.0050	1	03/06/2020 04:29
Toluene	---	0.0050	1	03/06/2020 04:29
Ethylbenzene	---	0.0050	1	03/06/2020 04:29
m,p-Xylene	---	0.010	1	03/06/2020 04:29
o-Xylene	---	0.0050	1	03/06/2020 04:29
Xylenes	---	0.0050	1	03/06/2020 04:29

Surrogates	REC (%)	Limits	
2-Fluorotoluene	98	62-126	03/06/2020 04:29

Analyst(s): IA

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5035
Date Prepared:	03/05/2020	**Analytical Method:**	SW8021B/8015Bm
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-7	2003206-007A	Soil	03/04/2020 09:54	GC7 03062017.D	195147

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/06/2020 20:49
MTBE	---	0.050	1	03/06/2020 20:49
Benzene	---	0.0050	1	03/06/2020 20:49
Toluene	---	0.0050	1	03/06/2020 20:49
Ethylbenzene	---	0.0050	1	03/06/2020 20:49
m,p-Xylene	---	0.010	1	03/06/2020 20:49
o-Xylene	---	0.0050	1	03/06/2020 20:49
Xylenes	---	0.0050	1	03/06/2020 20:49

Surrogates	REC (%)	Limits	
2-Fluorotoluene	95	62-126	03/06/2020 20:49

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-8	2003206-008A	Soil	03/04/2020 10:07	GC7 03062022.D	195147

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/06/2020 23:20
MTBE	---	0.050	1	03/06/2020 23:20
Benzene	---	0.0050	1	03/06/2020 23:20
Toluene	---	0.0050	1	03/06/2020 23:20
Ethylbenzene	---	0.0050	1	03/06/2020 23:20
m,p-Xylene	---	0.010	1	03/06/2020 23:20
o-Xylene	---	0.0050	1	03/06/2020 23:20
Xylenes	---	0.0050	1	03/06/2020 23:20

Surrogates	REC (%)	Limits	
2-Fluorotoluene	93	62-126	03/06/2020 23:20

Analyst(s): IA

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5035
Date Prepared:	03/05/2020	**Analytical Method:**	SW8021B/8015Bm
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-9	2003206-009A	Soil	03/04/2020 10:12	GC7 03062023.D	195147

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/06/2020 23:50
MTBE	---	0.050	1	03/06/2020 23:50
Benzene	---	0.0050	1	03/06/2020 23:50
Toluene	---	0.0050	1	03/06/2020 23:50
Ethylbenzene	---	0.0050	1	03/06/2020 23:50
m,p-Xylene	---	0.010	1	03/06/2020 23:50
o-Xylene	---	0.0050	1	03/06/2020 23:50
Xylenes	---	0.0050	1	03/06/2020 23:50

Surrogates	REC (%)	Limits	
2-Fluorotoluene	99	62-126	03/06/2020 23:50

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-10	2003206-010A	Soil	03/04/2020 10:29	GC7 03062024.D	195147

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/07/2020 00:19
MTBE	---	0.050	1	03/07/2020 00:19
Benzene	---	0.0050	1	03/07/2020 00:19
Toluene	---	0.0050	1	03/07/2020 00:19
Ethylbenzene	---	0.0050	1	03/07/2020 00:19
m,p-Xylene	---	0.010	1	03/07/2020 00:19
o-Xylene	---	0.0050	1	03/07/2020 00:19
Xylenes	---	0.0050	1	03/07/2020 00:19

Surrogates	REC (%)	Limits	
2-Fluorotoluene	98	62-126	03/07/2020 00:19

Analyst(s): IA

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5035
Date Prepared:	03/05/2020	**Analytical Method:**	SW8021B/8015Bm
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-11	**2003206-011A**	**Soil**	**03/04/2020 10:39**	**GC7 03062025.D**	**195147**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/07/2020 00:49
MTBE	---	0.050	1	03/07/2020 00:49
Benzene	---	0.0050	1	03/07/2020 00:49
Toluene	---	0.0050	1	03/07/2020 00:49
Ethylbenzene	---	0.0050	1	03/07/2020 00:49
m,p-Xylene	---	0.010	1	03/07/2020 00:49
o-Xylene	---	0.0050	1	03/07/2020 00:49
Xylenes	---	0.0050	1	03/07/2020 00:49

Surrogates	REC (%)	Limits	
2-Fluorotoluene	97	62-126	03/07/2020 00:49

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-12A	**2003206-012A**	**Soil**	**03/04/2020 10:53**	**GC7 03062026.D**	**195147**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	**1.5**	1.0	1	03/07/2020 01:19
MTBE	---	0.050	1	03/07/2020 01:19
Benzene	---	0.0050	1	03/07/2020 01:19
Toluene	---	0.0050	1	03/07/2020 01:19
Ethylbenzene	---	0.0050	1	03/07/2020 01:19
m,p-Xylene	---	0.010	1	03/07/2020 01:19
o-Xylene	---	0.0050	1	03/07/2020 01:19
Xylenes	---	0.0050	1	03/07/2020 01:19

Surrogates	REC (%)	Limits	
2-Fluorotoluene	95	62-126	03/07/2020 01:19

Analyst(s): IA Analytical Comments: d7

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5035
Date Prepared:	03/05/2020	**Analytical Method:**	SW8021B/8015Bm
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-12B	**2003206-013A**	**Soil**	**03/04/2020 10:55**	**GC7 03062027.D**	**195147**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/07/2020 01:49
MTBE	---	0.050	1	03/07/2020 01:49
Benzene	---	0.0050	1	03/07/2020 01:49
Toluene	---	0.0050	1	03/07/2020 01:49
Ethylbenzene	---	0.0050	1	03/07/2020 01:49
m,p-Xylene	---	0.010	1	03/07/2020 01:49
o-Xylene	---	0.0050	1	03/07/2020 01:49
Xylenes	---	0.0050	1	03/07/2020 01:49

Surrogates	REC (%)	Limits	
2-Fluorotoluene	92	62-126	03/07/2020 01:49

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-13A	**2003206-014A**	**Soil**	**03/04/2020 11:05**	**GC7 03062030.D**	**195147**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	**2.4**	1.0	1	03/07/2020 03:18
MTBE	---	0.050	1	03/07/2020 03:18
Benzene	---	0.0050	1	03/07/2020 03:18
Toluene	---	0.0050	1	03/07/2020 03:18
Ethylbenzene	---	0.0050	1	03/07/2020 03:18
m,p-Xylene	---	0.010	1	03/07/2020 03:18
o-Xylene	---	0.0050	1	03/07/2020 03:18
Xylenes	---	0.0050	1	03/07/2020 03:18

Surrogates	REC (%)	Limits	
2-Fluorotoluene	92	62-126	03/07/2020 03:18

Analyst(s): IA Analytical Comments: d7

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5035
Date Prepared:	03/05/2020	**Analytical Method:**	SW8021B/8015Bm
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-13B	**2003206-015A**	**Soil**	**03/04/2020 11:10**	**GC7 03062031.D**	**195147**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/07/2020 03:48
MTBE	---	0.050	1	03/07/2020 03:48
Benzene	---	0.0050	1	03/07/2020 03:48
Toluene	---	0.0050	1	03/07/2020 03:48
Ethylbenzene	---	0.0050	1	03/07/2020 03:48
m,p-Xylene	---	0.010	1	03/07/2020 03:48
o-Xylene	---	0.0050	1	03/07/2020 03:48
Xylenes	---	0.0050	1	03/07/2020 03:48

Surrogates	REC (%)	Limits	
2-Fluorotoluene	95	62-126	03/07/2020 03:48

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-14A	**2003206-016A**	**Soil**	**03/04/2020 11:15**	**GC7 03062032.D**	**195147**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	**1.3**	1.0	1	03/07/2020 04:18
MTBE	---	0.050	1	03/07/2020 04:18
Benzene	---	0.0050	1	03/07/2020 04:18
Toluene	---	0.0050	1	03/07/2020 04:18
Ethylbenzene	---	0.0050	1	03/07/2020 04:18
m,p-Xylene	---	0.010	1	03/07/2020 04:18
o-Xylene	---	0.0050	1	03/07/2020 04:18
Xylenes	---	0.0050	1	03/07/2020 04:18

Surrogates	REC (%)	Limits	
2-Fluorotoluene	87	62-126	03/07/2020 04:18

Analyst(s): IA Analytical Comments: d7

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW5035
Date Prepared:	03/05/2020	**Analytical Method:**	SW8021B/8015Bm
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-14B	**2003206-017A**	**Soil**	**03/04/2020 11:19**	**GC7 03062035.D**	**195147**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	**1.6**	1.0	1	03/07/2020 05:48
MTBE	---	0.050	1	03/07/2020 05:48
Benzene	---	0.0050	1	03/07/2020 05:48
Toluene	---	0.0050	1	03/07/2020 05:48
Ethylbenzene	---	0.0050	1	03/07/2020 05:48
m,p-Xylene	---	0.010	1	03/07/2020 05:48
o-Xylene	---	0.0050	1	03/07/2020 05:48
Xylenes	---	0.0050	1	03/07/2020 05:48

Surrogates	REC (%)	Limits	
2-Fluorotoluene	94	62-126	03/07/2020 05:48

Analyst(s): IA Analytical Comments: d7

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3550B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8015B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-1	2003206-001A	Soil	03/04/2020 09:17	GC11B 03062029.D	195148

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**1.1**	1.0	1	03/07/2020 02:17
TPH-Motor Oil (C18-C36)	**16**	5.0	1	03/07/2020 02:17

Surrogates	REC (%)	Limits	
C9	106	70-130	03/07/2020 02:17

Analyst(s): JIS Analytical Comments: e7,e2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-2	2003206-002A	Soil	03/04/2020 09:19	GC11B 03052051.D	195148

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	03/06/2020 06:44
TPH-Motor Oil (C18-C36)	**10**	5.0	1	03/06/2020 06:44

Surrogates	REC (%)	Limits	
C9	107	70-130	03/06/2020 06:44

Analyst(s): JIS Analytical Comments: e7

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-3	2003206-003A	Soil	03/04/2020 09:26	GC6B 03092029.D	195148

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**12**	1.0	1	03/09/2020 19:39
TPH-Motor Oil (C18-C36)	**83**	5.0	1	03/09/2020 19:39

Surrogates	REC (%)	Limits	
C9	98	70-130	03/09/2020 19:39

Analyst(s): JIS Analytical Comments: e7,e2

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3550B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8015B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-4	2003206-004A	Soil	03/04/2020 09:34	GC6B 03092033.D	195148

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**8.3**	1.0	1	03/09/2020 20:57
TPH-Motor Oil (C18-C36)	**67**	5.0	1	03/09/2020 20:57

Surrogates	REC (%)	Limits	
C9	91	70-130	03/09/2020 20:57

Analyst(s): JIS Analytical Comments: e7,e2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-5	2003206-005A	Soil	03/04/2020 09:37	GC9a 03102022.D	195148

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**830**	100	100	03/10/2020 17:49
TPH-Motor Oil (C18-C36)	**8000**	500	100	03/10/2020 17:49

Surrogates	REC (%)	Limits	
C9	97	70-130	03/10/2020 17:49

Analyst(s): JIS Analytical Comments: e7,e2,e8

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-6	2003206-006A	Soil	03/04/2020 09:46	GC6B 03062033.D	195148

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**12**	1.0	1	03/07/2020 00:58
TPH-Motor Oil (C18-C36)	**72**	5.0	1	03/07/2020 00:58

Surrogates	REC (%)	Limits	
C9	101	70-130	03/07/2020 00:58

Analyst(s): JIS Analytical Comments: e7,e2

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3550B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8015B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-7	2003206-007A	Soil	03/04/2020 09:54	GC9a 03062026.D	195148

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**23**	2.0	2	03/07/2020 01:28
TPH-Motor Oil (C18-C36)	**180**	10	2	03/07/2020 01:28

Surrogates	REC (%)	Limits	
C9	92	70-130	03/07/2020 01:28

Analyst(s): JIS Analytical Comments: e7,e2,e8

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-8	2003206-008A	Soil	03/04/2020 10:07	GC6B 03062029.D	195148

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**3.6**	1.0	1	03/06/2020 23:41
TPH-Motor Oil (C18-C36)	**33**	5.0	1	03/06/2020 23:41

Surrogates	REC (%)	Limits	
C9	102	70-130	03/06/2020 23:41

Analyst(s): JIS Analytical Comments: e7,e2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-9	2003206-009A	Soil	03/04/2020 10:12	GC9b 03062021.D	195148

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**8.9**	2.0	2	03/07/2020 00:11
TPH-Motor Oil (C18-C36)	**120**	10	2	03/07/2020 00:11

Surrogates	REC (%)	Limits	
C9	94	70-130	03/07/2020 00:11

Analyst(s): JIS Analytical Comments: e7,e2

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3550B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8015B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-10	2003206-010A	Soil	03/04/2020 10:29	GC9a 03102026.D	195148

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**7.6**	1.0	1	03/10/2020 19:06
TPH-Motor Oil (C18-C36)	**70**	5.0	1	03/10/2020 19:06

Surrogates	REC (%)	Limits	
C9	91	70-130	03/10/2020 19:06

Analyst(s): JIS Analytical Comments: e7,e2,e8

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-11	2003206-011A	Soil	03/04/2020 10:39	GC9a 03102030.D	195148

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**3.7**	1.0	1	03/10/2020 20:24
TPH-Motor Oil (C18-C36)	**45**	5.0	1	03/10/2020 20:24

Surrogates	REC (%)	Limits	
C9	90	70-130	03/10/2020 20:24

Analyst(s): JIS Analytical Comments: e7,e2,e8

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-12A	2003206-012A	Soil	03/04/2020 10:53	GC9a 03102034.D	195148

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**3500**	50	50	03/10/2020 21:42
TPH-Motor Oil (C18-C36)	**17,000**	250	50	03/10/2020 21:42

Surrogates	REC (%)	Limits	
C9	94	70-130	03/10/2020 21:42

Analyst(s): JIS Analytical Comments: e7,e2,e8

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3550B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8015B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-12B	2003206-013A	Soil	03/04/2020 10:55	GC9b 03102009.D	195148

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**75**	2.0	2	03/10/2020 13:56
TPH-Motor Oil (C18-C36)	**360**	10	2	03/10/2020 13:56

Surrogates	REC (%)	Limits	
C9	92	70-130	03/10/2020 13:56

Analyst(s): JIS Analytical Comments: e7,e2,e8

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-13A	2003206-014A	Soil	03/04/2020 11:05	GC9b 03102015.D	195148

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**2100**	50	50	03/10/2020 15:52
TPH-Motor Oil (C18-C36)	**13,000**	250	50	03/10/2020 15:52

Surrogates	REC (%)	Limits	
C9	88	70-130	03/10/2020 15:52

Analyst(s): JIS Analytical Comments: e7,e2,e8

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-13B	2003206-015A	Soil	03/04/2020 11:10	GC9a 03062064.D	195148

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**140**	5.0	5	03/07/2020 13:45
TPH-Motor Oil (C18-C36)	**680**	25	5	03/07/2020 13:45

Surrogates	REC (%)	Limits	
C9	100	70-130	03/07/2020 13:45

Analyst(s): JIS Analytical Comments: e7,e2,e8

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Received:	03/05/2020 9:35	**Extraction Method:**	SW3550B
Date Prepared:	03/05/2020	**Analytical Method:**	SW8015B
Project:	303754-001; Monterey Road Development	**Unit:**	mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-14A	**2003206-016A**	**Soil**	**03/04/2020 11:15**	**GC9b 03102019.D**	**195148**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**1700**	50	50	03/10/2020 17:10
TPH-Motor Oil (C18-C36)	**17,000**	250	50	03/10/2020 17:10

Surrogates	REC (%)	Limits	
C9	88	70-130	03/10/2020 17:10

Analyst(s): JIS Analytical Comments: e7,e2,e8

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DS-14B	**2003206-017A**	**Soil**	**03/04/2020 11:19**	**GC9b 03102023.D**	**195148**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**490**	20	20	03/10/2020 18:28
TPH-Motor Oil (C18-C36)	**3900**	100	20	03/10/2020 18:28

Surrogates	REC (%)	Limits	
C9	98	70-130	03/10/2020 18:28

Analyst(s): JIS Analytical Comments: e7,e2,e8

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Prepared:	03/04/2020	**BatchID:**	195100
Date Analyzed:	03/05/2020 - 03/07/2020	**Extraction Method:**	SW3550B
Instrument:	GC40	**Analytical Method:**	SW8081A
Matrix:	Soil	**Unit:**	mg/kg
Project:	303754-001; Monterey Road Development	**Sample ID:**	MB/LCS/LCSD-195100

QC Summary Report for SW8081A

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Aldrin	ND	0.000270	0.00100	-	-	-
a-BHC	ND	0.000100	0.00100	-	-	-
b-BHC	ND	0.000250	0.00100	-	-	-
d-BHC	ND	0.000370	0.00100	-	-	-
g-BHC	ND	0.0000970	0.00100	-	-	-
Chlordane (Technical)	ND	0.0160	0.0250	-	-	-
a-Chlordane	ND	0.000470	0.00100	-	-	-
g-Chlordane	ND	0.000210	0.00100	-	-	-
p,p-DDD	ND	0.000140	0.00100	-	-	-
p,p-DDE	ND	0.000320	0.00100	-	-	-
p,p-DDT	ND	0.000430	0.00100	-	-	-
Dieldrin	ND	0.000330	0.00100	-	-	-
Endosulfan I	ND	0.000650	0.00100	-	-	-
Endosulfan II	ND	0.000200	0.00100	-	-	-
Endosulfan sulfate	ND	0.000630	0.00100	-	-	-
Endrin	ND	0.000420	0.00100	-	-	-
Endrin aldehyde	ND	0.000200	0.00100	-	-	-
Endrin ketone	ND	0.000130	0.00100	-	-	-
Heptachlor	ND	0.000210	0.00100	-	-	-
Heptachlor epoxide	ND	0.000200	0.00100	-	-	-
Hexachlorobenzene	ND	0.000270	0.0100	-	-	-
Hexachlorocyclopentadiene	ND	0.000400	0.0200	-	-	-
Methoxychlor	ND	0.000890	0.00100	-	-	-
Toxaphene	ND	0.0350	0.0500	-	-	-
Surrogate Recovery						
Decachlorobiphenyl	0.0526			0.05	105	75-136

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Prepared:	03/04/2020	**BatchID:**	195100
Date Analyzed:	03/05/2020 - 03/07/2020	**Extraction Method:**	SW3550B
Instrument:	GC40	**Analytical Method:**	SW8081A
Matrix:	Soil	**Unit:**	mg/kg
Project:	303754-001; Monterey Road Development	**Sample ID:**	MB/LCS/LCSD-195100

QC Summary Report for SW8081A

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Aldrin	0.0561	0.0566	0.050	112	113	92-133	1.02	20
a-BHC	0.0557	0.0560	0.050	111	112	96-140	0.628	20
b-BHC	0.0580	0.0594	0.050	116	119	77-137	2.25	20
d-BHC	0.0599	0.0611	0.050	120	122	89-145	1.97	20
g-BHC	0.0520	0.0525	0.050	104	105	92-134	1.01	20
a-Chlordane	0.0527	0.0537	0.050	105	107	72-134	1.83	20
g-Chlordane	0.0579	0.0588	0.050	116	118	86-132	1.59	20
p,p-DDD	0.0556	0.0574	0.050	111	115	35-140	3.15	20
p,p-DDE	0.0578	0.0592	0.050	116	118	83-138	2.28	20
p,p-DDT	0.0569	0.0594	0.050	114	119	70-137	4.30	20
Dieldrin	0.0572	0.0583	0.050	114	117	99-141	1.93	20
Endosulfan I	0.0526	0.0535	0.050	105	107	93-121	1.59	20
Endosulfan II	0.0551	0.0568	0.050	110	114	74-125	3.00	20
Endosulfan sulfate	0.0542	0.0560	0.050	108	112	66-138	3.31	20
Endrin	0.0549	0.0555	0.050	110	111	92-137	1.14	20
Endrin aldehyde	0.0548	0.0557	0.050	110	111	77-135	1.68	20
Endrin ketone	0.0505	0.0506	0.050	101	101	72-126	0.141	20
Heptachlor	0.0575	0.0585	0.050	115	117	89-136	1.71	20
Heptachlor epoxide	0.0527	0.0534	0.050	105	107	85-121	1.25	20
Hexachlorobenzene	0.0490	0.0493	0.050	98	99	87-127	0.588	20
Hexachlorocyclopentadiene	0.0168	0.0139	0.050	34,F2	28,F2	41-145	19.0	20
Methoxychlor	0.0519	0.0544	0.050	104	109	82-142	4.68	20
Surrogate Recovery								
Decachlorobiphenyl	0.0491	0.0513	0.050	98	103	75-136	4.30	20

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Prepared:	03/05/2020	**BatchID:**	195166
Date Analyzed:	03/06/2020	**Extraction Method:**	SW3550B
Instrument:	GC23, GC41	**Analytical Method:**	SW8082
Matrix:	Soil	**Unit:**	mg/kg
Project:	303754-001; Monterey Road Development	**Sample ID:**	MB/LCS/LCSD-195166 2003206-012AMS/MSD

QC Summary Report for SW8082

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Aroclor1016	ND	0.00510	0.0500	-	-	-
Aroclor1221	ND	0.0110	0.0500	-	-	-
Aroclor1232	ND	0.00630	0.0500	-	-	-
Aroclor1242	ND	0.00670	0.0500	-	-	-
Aroclor1248	ND	0.00400	0.0500	-	-	-
Aroclor1254	ND	0.00680	0.0500	-	-	-
Aroclor1260	ND	0.00610	0.0500	-	-	-
Surrogate Recovery						
Decachlorobiphenyl	0.0453			0.05	91	75-136

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Aroclor1016	0.166	0.168	0.15	111	112	90-125	0.862	20
Aroclor1260	0.164	0.164	0.15	110	110	77-122	0.116	20
Surrogate Recovery								
Decachlorobiphenyl	0.0464	0.0470	0.050	93	94	75-136	1.36	20
Decachlorobiphenyl	0.0464	0.0470	0.050	93	94	75-136	1.36	20

Analyte	MS DF	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aroclor1016	20	0.218	0.193	0.15	ND<1.0	146	129	55-174	12.2	20
Aroclor1260	20	0.287	0.260	0.15	ND<1.0	191,F1	173,F1	41-170	9.89	20
Surrogate Recovery										
Decachlorobiphenyl	20	0.0866	0.0761	0.050		173,F3	152,F3	69-143	12.8	20

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Prepared:	03/05/2020	**BatchID:**	195146
Date Analyzed:	03/05/2020	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	303754-001; Monterey Road Development	**Sample ID:**	MB/LCS/LCSD-195146

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	0.0390	0.100	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.00100	0.00500	-	-	-
Benzene	ND	0.00160	0.00500	-	-	-
Bromobenzene	ND	0.00300	0.00500	-	-	-
Bromochloromethane	ND	0.00150	0.00500	-	-	-
Bromodichloromethane	ND	0.00120	0.00500	-	-	-
Bromoform	ND	0.00120	0.00500	-	-	-
Bromomethane	ND	0.00200	0.00500	-	-	-
2-Butanone (MEK)	ND	0.0210	0.0500	-	-	-
t-Butyl alcohol (TBA)	ND	0.00530	0.0500	-	-	-
n-Butyl benzene	ND	0.00350	0.00500	-	-	-
sec-Butyl benzene	ND	0.00340	0.00500	-	-	-
tert-Butyl benzene	ND	0.00290	0.00500	-	-	-
Carbon Disulfide	ND	0.00360	0.00500	-	-	-
Carbon Tetrachloride	ND	0.00170	0.00500	-	-	-
Chlorobenzene	ND	0.00180	0.00500	-	-	-
Chloroethane	ND	0.00160	0.00500	-	-	-
Chloroform	ND	0.00160	0.00500	-	-	-
Chloromethane	ND	0.00170	0.00500	-	-	-
2-Chlorotoluene	ND	0.00220	0.00500	-	-	-
4-Chlorotoluene	ND	0.00240	0.00500	-	-	-
Dibromochloromethane	ND	0.00110	0.00500	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.00370	0.00500	-	-	-
1,2-Dibromoethane (EDB)	ND	0.00130	0.00400	-	-	-
Dibromomethane	ND	0.00140	0.00500	-	-	-
1,2-Dichlorobenzene	ND	0.00320	0.00500	-	-	-
1,3-Dichlorobenzene	ND	0.00180	0.00500	-	-	-
1,4-Dichlorobenzene	ND	0.00180	0.00500	-	-	-
Dichlorodifluoromethane	ND	0.00110	0.00500	-	-	-
1,1-Dichloroethane	ND	0.00170	0.00500	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.00140	0.00400	-	-	-
1,1-Dichloroethene	ND	0.00170	0.00500	-	-	-
cis-1,2-Dichloroethene	ND	0.00150	0.00500	-	-	-
trans-1,2-Dichloroethene	ND	0.00160	0.00500	-	-	-
1,2-Dichloropropane	ND	0.00140	0.00500	-	-	-
1,3-Dichloropropane	ND	0.00160	0.00500	-	-	-
2,2-Dichloropropane	ND	0.00130	0.00500	-	-	-
1,1-Dichloropropene	ND	0.00180	0.00500	-	-	-

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Prepared:	03/05/2020	**BatchID:**	195146
Date Analyzed:	03/05/2020	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	303754-001; Monterey Road Development	**Sample ID:**	MB/LCS/LCSD-195146

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
cis-1,3-Dichloropropene	ND	0.00150	0.00500	-	-	-
trans-1,3-Dichloropropene	ND	0.00140	0.00500	-	-	-
Diisopropyl ether (DIPE)	ND	0.00140	0.00500	-	-	-
Ethylbenzene	ND	0.00250	0.00500	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.00130	0.00500	-	-	-
Freon 113	ND	0.00160	0.00500	-	-	-
Hexachlorobutadiene	ND	0.00500	0.00500	-	-	-
Hexachloroethane	ND	0.00250	0.00500	-	-	-
2-Hexanone	ND	0.00220	0.00500	-	-	-
Isopropylbenzene	ND	0.00320	0.00500	-	-	-
4-Isopropyl toluene	ND	0.00320	0.00500	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.00130	0.00500	-	-	-
Methylene chloride	ND	0.0100	0.0200	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.000800	0.00500	-	-	-
Naphthalene	ND	0.00440	0.00500	-	-	-
n-Propyl benzene	ND	0.00290	0.00500	-	-	-
Styrene	ND	0.00300	0.00500	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.00160	0.00500	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.00130	0.00500	-	-	-
Tetrachloroethene	ND	0.00230	0.00500	-	-	-
Toluene	ND	0.00240	0.00500	-	-	-
1,2,3-Trichlorobenzene	ND	0.00300	0.00500	-	-	-
1,2,4-Trichlorobenzene	ND	0.00290	0.00500	-	-	-
1,1,1-Trichloroethane	ND	0.00180	0.00500	-	-	-
1,1,2-Trichloroethane	ND	0.00190	0.00500	-	-	-
Trichloroethene	ND	0.00170	0.00500	-	-	-
Trichlorofluoromethane	ND	0.00160	0.00500	-	-	-
1,2,3-Trichloropropane	ND	0.00190	0.00500	-	-	-
1,2,4-Trimethylbenzene	ND	0.00280	0.00500	-	-	-
1,3,5-Trimethylbenzene	ND	0.00260	0.00500	-	-	-
Vinyl Chloride	ND	0.00150	0.00500	-	-	-
m,p-Xylene	ND	0.00400	0.00500	-	-	-
o-Xylene	ND	0.00180	0.00500	-	-	-

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Prepared:	03/05/2020	**BatchID:**	195146
Date Analyzed:	03/05/2020	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	303754-001; Monterey Road Development	**Sample ID:**	MB/LCS/LCSD-195146

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Surrogate Recovery						
Dibromofluoromethane	0.113			0.125	90	66-112
Toluene-d8	0.133			0.125	107	92-109
4-BFB	0.0130			0.0125	104	72-112
Benzene-d6	0.0852			0.1	85	81-126
Ethylbenzene-d10	0.100			0.1	100	92-138
1,2-DCB-d4	0.0791			0.1	79	68-108

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Prepared:	03/05/2020	**BatchID:**	195146
Date Analyzed:	03/05/2020	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	303754-001; Monterey Road Development	**Sample ID:**	MB/LCS/LCSD-195146

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acetone	0.223	0.208	0.20	111	104	59-127	6.89	20
tert-Amyl methyl ether (TAME)	0.0171	0.0163	0.020	86	81	54-98	4.94	20
Benzene	0.0210	0.0205	0.020	105	102	71-115	2.72	20
Bromobenzene	0.0184	0.0174	0.020	92	87	69-120	5.66	20
Bromochloromethane	0.0194	0.0189	0.020	97	94	63-117	2.63	20
Bromodichloromethane	0.0177	0.0170	0.020	88	85	61-109	3.92	20
Bromoform	0.0129	0.0123	0.020	64	62	46-87	4.38	20
Bromomethane	0.0259	0.0250	0.020	129	125	22-195	3.54	20
2-Butanone (MEK)	0.0729	0.0680	0.080	91	85	53-124	6.95	20
t-Butyl alcohol (TBA)	0.0794	0.0586	0.080	99	73	29-142	30.1,F2	20
n-Butyl benzene	0.0252	0.0239	0.020	126	120	102-169	5.07	20
sec-Butyl benzene	0.0245	0.0238	0.020	122	119	100-166	2.71	20
tert-Butyl benzene	0.0241	0.0233	0.020	120	116	91-153	3.32	20
Carbon Disulfide	0.0206	0.0198	0.020	103	99	60-125	3.59	20
Carbon Tetrachloride	0.0212	0.0206	0.020	106	103	69-124	3.01	20
Chlorobenzene	0.0191	0.0185	0.020	95	92	73-116	3.17	20
Chloroethane	0.0179	0.0174	0.020	89	87	47-140	2.55	20
Chloroform	0.0214	0.0209	0.020	107	104	69-118	2.65	20
Chloromethane	0.0209	0.0196	0.020	104	98	30-132	6.40	20
2-Chlorotoluene	0.0213	0.0206	0.020	107	103	75-147	3.49	20
4-Chlorotoluene	0.0218	0.0212	0.020	109	106	75-137	3.02	20
Dibromochloromethane	0.0177	0.0172	0.020	89	86	57-105	3.20	20
1,2-Dibromo-3-chloropropane	0.0112	0.00729	0.010	112,F2	73	36-103	41.9,F2	20
1,2-Dibromoethane (EDB)	0.00843	0.00808	0.010	84	81	66-101	4.19	20
Dibromomethane	0.0180	0.0172	0.020	90	86	61-103	4.77	20
1,2-Dichlorobenzene	0.0152	0.0146	0.020	76	73	59-104	4.20	20
1,3-Dichlorobenzene	0.0195	0.0185	0.020	97	92	70-133	5.22	20
1,4-Dichlorobenzene	0.0191	0.0186	0.020	96	93	68-123	2.70	20
Dichlorodifluoromethane	0.00737	0.00723	0.020	37	36	13-107	1.94	20
1,1-Dichloroethane	0.0209	0.0203	0.020	104	102	69-118	2.51	20
1,2-Dichloroethane (1,2-DCA)	0.0204	0.0196	0.020	102	98	59-112	4.08	20
1,1-Dichloroethene	0.0192	0.0184	0.020	96	92	69-126	4.20	20
cis-1,2-Dichloroethene	0.0198	0.0192	0.020	99	96	69-116	3.40	20
trans-1,2-Dichloroethene	0.0217	0.0210	0.020	109	105	73-116	3.15	20
1,2-Dichloropropane	0.0192	0.0187	0.020	96	93	65-111	2.63	20
1,3-Dichloropropane	0.0184	0.0176	0.020	92	88	67-110	4.52	20
2,2-Dichloropropane	0.0205	0.0198	0.020	103	99	65-125	3.70	20
1,1-Dichloropropene	0.0214	0.0207	0.020	107	103	70-123	3.14	20

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Prepared:	03/05/2020	**BatchID:**	195146
Date Analyzed:	03/05/2020	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	303754-001; Monterey Road Development	**Sample ID:**	MB/LCS/LCSD-195146

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	0.0202	0.0196	0.020	101	98	68-126	3.21	20
trans-1,3-Dichloropropene	0.0184	0.0177	0.020	92	89	69-117	3.78	20
Diisopropyl ether (DIPE)	0.0180	0.0173	0.020	90	86	57-110	4.09	20
Ethylbenzene	0.0211	0.0206	0.020	106	103	80-128	2.26	20
Ethyl tert-butyl ether (ETBE)	0.0181	0.0171	0.020	90	86	54-106	5.43	20
Freon 113	0.0156	0.0152	0.020	78	76	60-108	1.96	20
Hexachlorobutadiene	0.0236	0.0224	0.020	118	112	67-182	4.85	20
Hexachloroethane	0.0237	0.0220	0.020	118	110	85-156	7.32	20
2-Hexanone	0.0146	0.0138	0.020	73	69	37-90	5.96	20
Isopropylbenzene	0.0213	0.0211	0.020	106	106	64-167	0.757	20
4-Isopropyl toluene	0.0212	0.0206	0.020	106	103	88-167	2.54	20
Methyl-t-butyl ether (MTBE)	0.0187	0.0177	0.020	94	89	60-102	5.28	20
Methylene chloride	0.0223	0.0212	0.020	112	106	71-117	4.82	20
4-Methyl-2-pentanone (MIBK)	0.0146	0.0134	0.020	73	67	48-90	8.12	20
Naphthalene	0.00986	0.00859	0.020	49	43	29-65	13.8	20
n-Propyl benzene	0.0255	0.0245	0.020	127	123	88-161	3.80	20
Styrene	0.0178	0.0176	0.020	89	88	70-108	1.15	20
1,1,1,2-Tetrachloroethane	0.0183	0.0176	0.020	91	88	69-117	3.50	20
1,1,2,2-Tetrachloroethane	0.0172	0.0157	0.020	86	78	53-96	9.17	20
Tetrachloroethene	0.0218	0.0211	0.020	109	106	78-128	3.29	20
Toluene	0.0218	0.0214	0.020	109	107	78-121	1.92	20
1,2,3-Trichlorobenzene	0.0116	0.0105	0.020	58	52	35-80	9.63	20
1,2,4-Trichlorobenzene	0.0144	0.0133	0.020	72	66	46-101	8.34	20
1,1,1-Trichloroethane	0.0216	0.0211	0.020	108	105	69-121	2.26	20
1,1,2-Trichloroethane	0.0181	0.0172	0.020	91	86	64-104	5.13	20
Trichloroethene	0.0196	0.0190	0.020	98	95	73-118	2.95	20
Trichlorofluoromethane	0.0199	0.0191	0.020	99	96	31-119	3.88	20
1,2,3-Trichloropropane	0.0104	0.00939	0.010	104	94	65-107	9.82	20
1,2,4-Trimethylbenzene	0.0237	0.0228	0.020	119	114	80-147	4.10	20
1,3,5-Trimethylbenzene	0.0231	0.0223	0.020	115	111	83-156	3.52	20
Vinyl Chloride	0.00896	0.00858	0.010	90	86	40-125	4.40	20
m,p-Xylene	0.0409	0.0406	0.040	102	101	80-122	0.774	20
o-Xylene	0.0196	0.0194	0.020	98	97	79-116	1.07	20

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Prepared:	03/05/2020	**BatchID:**	195146
Date Analyzed:	03/05/2020	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	303754-001; Monterey Road Development	**Sample ID:**	MB/LCS/LCSD-195146

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
Dibromofluoromethane	0.112	0.112	0.12	90	90	66-112	0.233	20
Toluene-d8	0.133	0.134	0.12	106	108	92-109	1.22	20
4-BFB	0.0131	0.0129	0.012	105	103	72-112	1.63	20
Benzene-d6	0.0862	0.0833	0.10	86	83	81-126	3.40	20
Ethylbenzene-d10	0.0997	0.0975	0.10	100	97	92-138	2.24	20
1,2-DCB-d4	0.0822	0.0783	0.10	82	78	68-108	4.80	20

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Prepared:	03/06/2020	**BatchID:**	195212
Date Analyzed:	03/07/2020	**Extraction Method:**	SW3050B
Instrument:	ICP-MS4	**Analytical Method:**	SW6020
Matrix:	Soil	**Unit:**	mg/kg
Project:	303754-001; Monterey Road Development	**Sample ID:**	MB/LCS/LCSD-195212

QC Summary Report for Metals

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Antimony	ND	0.0940	0.500	-	-	-
Arsenic	ND	0.140	0.500	-	-	-
Barium	ND	0.970	5.00	-	-	-
Beryllium	ND	0.0720	0.500	-	-	-
Cadmium	ND	0.0580	0.250	-	-	-
Chromium	ND	0.0920	0.500	-	-	-
Cobalt	ND	0.0560	0.500	-	-	-
Copper	ND	0.0690	0.500	-	-	-
Lead	ND	0.0940	0.500	-	-	-
Mercury	0.0130,J	0.00500	0.0500	-	-	-
Molybdenum	ND	0.230	0.500	-	-	-
Nickel	ND	0.0720	0.500	-	-	-
Selenium	ND	0.130	0.500	-	-	-
Silver	ND	0.0550	0.500	-	-	-
Thallium	ND	0.100	0.500	-	-	-
Vanadium	ND	0.0640	0.500	-	-	-
Zinc	ND	1.40	5.00	-	-	-
Surrogate Recovery						
Terbium	482			500	96	70-130

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Prepared:	03/06/2020	**BatchID:**	195212
Date Analyzed:	03/07/2020	**Extraction Method:**	SW3050B
Instrument:	ICP-MS4	**Analytical Method:**	SW6020
Matrix:	Soil	**Unit:**	mg/kg
Project:	303754-001; Monterey Road Development	**Sample ID:**	MB/LCS/LCSD-195212

QC Summary Report for Metals

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Antimony	46.7	48.0	50	93	96	75-125	2.82	20
Arsenic	46.1	49.1	50	92	98	75-125	6.24	20
Barium	473	484	500	95	97	75-125	2.30	20
Beryllium	49.1	50.4	50	98	101	75-125	2.76	20
Cadmium	47.4	47.4	50	95	95	75-125	0.0527	20
Chromium	47.2	48.5	50	94	97	75-125	2.71	20
Cobalt	46.5	48.7	50	93	97	75-125	4.73	20
Copper	46.2	48.2	50	92	96	75-125	4.17	20
Lead	47.2	48.6	50	94	97	75-125	2.96	20
Mercury	1.18	1.24	1.25	94	99	75-125	5.46	20
Molybdenum	48.0	49.7	50	96	99	75-125	3.50	20
Nickel	46.3	47.6	50	93	95	75-125	2.75	20
Selenium	47.8	49.3	50	96	99	75-125	3.00	20
Silver	47.0	48.0	50	94	96	75-125	2.15	20
Thallium	46.9	48.2	50	94	96	75-125	2.57	20
Vanadium	47.4	48.7	50	95	97	75-125	2.58	20
Zinc	471	485	500	94	97	75-125	2.87	20
Surrogate Recovery								
Terbium	489	511	500	98	102	70-130	4.39	20

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Prepared:	03/09/2020	**BatchID:**	195291
Date Analyzed:	03/09/2020	**Extraction Method:**	SW3050B
Instrument:	ICP-MS4	**Analytical Method:**	SW6020
Matrix:	Soil	**Unit:**	mg/kg
Project:	303754-001; Monterey Road Development	**Sample ID:**	MB/LCS/LCSD-195291

QC Summary Report for Metals

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Antimony	ND	0.0940	0.500	-	-	-
Arsenic	ND	0.140	0.500	-	-	-
Barium	ND	0.970	5.00	-	-	-
Beryllium	ND	0.0720	0.500	-	-	-
Cadmium	ND	0.0580	0.250	-	-	-
Chromium	ND	0.0920	0.500	-	-	-
Cobalt	ND	0.0560	0.500	-	-	-
Copper	ND	0.0690	0.500	-	-	-
Lead	ND	0.0940	0.500	-	-	-
Mercury	ND	0.00500	0.0500	-	-	-
Molybdenum	ND	0.230	0.500	-	-	-
Nickel	ND	0.0720	0.500	-	-	-
Selenium	ND	0.130	0.500	-	-	-
Silver	ND	0.0550	0.500	-	-	-
Thallium	ND	0.100	0.500	-	-	-
Vanadium	ND	0.0640	0.500	-	-	-
Zinc	ND	1.40	5.00	-	-	-
Surrogate Recovery						
Terbium	531			500	106	70-130

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Prepared:	03/09/2020	**BatchID:**	195291
Date Analyzed:	03/09/2020	**Extraction Method:**	SW3050B
Instrument:	ICP-MS4	**Analytical Method:**	SW6020
Matrix:	Soil	**Unit:**	mg/kg
Project:	303754-001; Monterey Road Development	**Sample ID:**	MB/LCS/LCSD-195291

QC Summary Report for Metals

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Antimony	55.4	54.0	50	111	108	75-125	2.47	20
Arsenic	54.0	51.4	50	108	103	75-125	4.87	20
Barium	512	496	500	102	99	75-125	3.27	20
Beryllium	51.9	50.5	50	104	101	75-125	2.83	20
Cadmium	52.3	51.1	50	105	102	75-125	2.33	20
Chromium	51.4	50.3	50	103	101	75-125	2.24	20
Cobalt	52.1	51.3	50	104	103	75-125	1.56	20
Copper	53.2	51.8	50	107	104	75-125	2.75	20
Lead	52.4	51.2	50	105	102	75-125	2.19	20
Mercury	1.31	1.30	1.25	105	104	75-125	1.30	20
Molybdenum	52.5	51.1	50	105	102	75-125	2.64	20
Nickel	53.3	51.0	50	107	102	75-125	4.30	20
Selenium	52.5	51.5	50	105	103	75-125	1.89	20
Silver	52.3	51.1	50	105	102	75-125	2.40	20
Thallium	52.7	51.2	50	105	102	75-125	2.89	20
Vanadium	50.8	50.2	50	102	100	75-125	1.20	20
Zinc	535	524	500	107	105	75-125	2.03	20
Surrogate Recovery								
Terbium	542	520	500	108	104	70-130	4.10	20

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Prepared:	03/05/2020	**BatchID:**	195147
Date Analyzed:	03/05/2020	**Extraction Method:**	SW5035
Instrument:	GC7	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Soil	**Unit:**	mg/Kg
Project:	303754-001; Monterey Road Development	**Sample ID:**	MB/LCS/LCSD-195147

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	0.700	1.00	-	-	-
MTBE	ND	0.00400	0.0500	-	-	-
Benzene	ND	0.00300	0.00500	-	-	-
Toluene	ND	0.00200	0.00500	-	-	-
Ethylbenzene	ND	0.00220	0.00500	-	-	-
m,p-Xylene	ND	0.00300	0.0100	-	-	-
o-Xylene	ND	0.00100	0.00500	-	-	-
Surrogate Recovery						
2-Fluorotoluene	0.0993			0.1	99	75-134

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	0.655	0.628	0.60	109	105	82-118	4.13	20
MTBE	0.117	0.114	0.10	117	114	61-119	2.24	20
Benzene	0.105	0.102	0.10	105	102	77-128	2.65	20
Toluene	0.106	0.106	0.10	106	106	74-132	0.859	20
Ethylbenzene	0.103	0.105	0.10	103	105	84-127	1.58	20
m,p-Xylene	0.220	0.224	0.20	110	112	80-120	1.48	20
o-Xylene	0.104	0.103	0.10	104	103	80-120	0.655	20
Surrogate Recovery								
2-Fluorotoluene	0.0974	0.0987	0.10	97	99	75-134	1.34	20

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Earth Systems Pacific	**WorkOrder:**	2003206
Date Prepared:	03/05/2020	**BatchID:**	195148
Date Analyzed:	03/05/2020 - 03/06/2020	**Extraction Method:**	SW3550B
Instrument:	GC6A, GC9a	**Analytical Method:**	SW8015B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	303754-001; Monterey Road Development	**Sample ID:**	MB/LCS/LCSD-195148

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	0.830	1.00	-	-	-
TPH-Motor Oil (C18-C36)	ND	3.80	5.00	-	-	-
Surrogate Recovery						
C9	25.0			25	100	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	39.8	40.2	40	99	100	70-130	0.991	20
Surrogate Recovery								
C9	24.8	24.8	25	99	99	70-130	0.0379	20

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 2003206 **ClientCode: ESC**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☒ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
☒ Detection Summary ☒ Dry-Weight

Report to:
Brett Faust
Earth Systems Pacific
500 Park Center Drive, Ste.1
Hollister, CA 95023
(831) 637-2133 FAX: (831) 637-0510

Email: bfaust@earthsystems.com
cc/3rd Party:
PO:
Project: 303754-001; Monterey Road Development

Bill to:
Accounts Payable
Earth Systems Pacific
500 Park Center Drive, Ste.1
Hollister, CA 95023
espadmin@earthsystems.com

Requested TAT: 5 days;

Date Received: **03/05/2020**
Date Logged: **03/05/2020**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
2003206-001	DS-1	Soil	3/4/2020 09:17	☐				A	A	A	A					
2003206-002	DS-2	Soil	3/4/2020 09:19	☐				A	A	A	A					
2003206-003	DS-3	Soil	3/4/2020 09:26	☐				A	A	A	A					
2003206-004	DS-4	Soil	3/4/2020 09:34	☐				A	A	A	A					
2003206-005	DS-5	Soil	3/4/2020 09:37	☐				A	A	A	A					
2003206-006	DS-6	Soil	3/4/2020 09:46	☐				A	A	A	A					
2003206-007	DS-7	Soil	3/4/2020 09:54	☐				A	A	A	A					
2003206-008	DS-8	Soil	3/4/2020 10:07	☐				A	A	A	A					
2003206-009	DS-9	Soil	3/4/2020 10:12	☐				A	A	A	A					
2003206-010	DS-10	Soil	3/4/2020 10:29	☐				A	A	A	A					
2003206-011	DS-11	Soil	3/4/2020 10:39	☐				A	A	A	A					
2003206-012	DS-12A	Soil	3/4/2020 10:53	☐		A	A	A	A	A	A					
2003206-013	DS-12B	Soil	3/4/2020 10:55	☐		A	A	A	A	A	A					
2003206-014	DS-13A	Soil	3/4/2020 11:05	☐		A	A	A	A	A	A					
2003206-015	DS-13B	Soil	3/4/2020 11:10	☐		A	A	A	A	A	A					

Test Legend:

1	8081_S	2	8082_PCB_S	3	8260B_S	4	CAM17MS_TTLC_S
5	G-MBTEX_S	6	PRDisposal Fee	7	TPH(DMO)_S	8	
9		10		11		12	

Project Manager: Yen Cao **Prepared by: Tina Perez**

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A, 010A, 011A, 012A, 013A, 014A, 015A, 016A, 017A contain testgroup Multi Range_S.

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 2003206 **ClientCode: ESC**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☑ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
☑ Detection Summary ☑ Dry-Weight

Report to:
Brett Faust
Earth Systems Pacific
500 Park Center Drive, Ste.1
Hollister, CA 95023
(831) 637-2133 FAX: (831) 637-0510

Email: bfaust@earthsystems.com
cc/3rd Party:
PO:
Project: 303754-001; Monterey Road Development

Bill to:
Accounts Payable
Earth Systems Pacific
500 Park Center Drive, Ste.1
Hollister, CA 95023
espadmin@earthsystems.com

Requested TAT: 5 days;

Date Received: **03/05/2020**
Date Logged: **03/05/2020**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
2003206-016	DS-14A	Soil	3/4/2020 11:15	☐		A	A	A	A	A	A					
2003206-017	DS-14B	Soil	3/4/2020 11:19	☐		A	A	A	A	A	A					
2003206-018	C1a,C1b,C1c,C1d	Soil	3/4/2020 09:25	☐	A					A						
2003206-019	C2a,C2b,C2c,C2d	Soil	3/4/2020 09:47	☐	A					A						
2003206-020	C3a,C3b,C3c,C3d	Soil	3/4/2020 10:06	☐	A					A						
2003206-021	C4a,C4b,C4c,C4d	Soil	3/4/2020 10:23	☐	A					A						
2003206-022	C5a,C5b,C5c,C5d	Soil	3/4/2020 10:41	☐	A					A						

Test Legend:

1	8081_S	2	8082_PCB_S	3	8260B_S	4	CAM17MS_TTLC_S
5	G-MBTEX_S	6	PRDisposal Fee	7	TPH(DMO)_S	8	
9		10		11		12	

Project Manager: Yen Cao **Prepared by: Tina Perez**

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A, 010A, 011A, 012A, 013A, 014A, 015A, 016A, 017A contain testgroup Multi Range_S.

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: EARTH SYSTEMS PACIFIC
Client Contact: Brett Faust
Contact's Email: bfaust@earthsystems.com

Project: 303754-001; Monterey Road Development
Comments:

Work Order: 2003206
QC Level: LEVEL 2
Date Logged: 3/5/2020

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2003206-001A	DS-1	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x3"	☐	3/4/2020 9:17	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	
2003206-002A	DS-2	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x3"	☐	3/4/2020 9:19	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	
2003206-003A	DS-3	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x3"	☐	3/4/2020 9:26	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	
2003206-004A	DS-4	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x3"	☐	3/4/2020 9:34	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	
2003206-005A	DS-5	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x3"	☐	3/4/2020 9:37	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	
2003206-006A	DS-6	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x3"	☐	3/4/2020 9:46	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	
2003206-007A	DS-7	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x3"	☐	3/4/2020 9:54	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	
2003206-008A	DS-8	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x3"	☐	3/4/2020 10:07	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: EARTH SYSTEMS PACIFIC
Client Contact: Brett Faust
Contact's Email: bfaust@earthsystems.com

Project: 303754-001; Monterey Road Development
Comments:

Work Order: 2003206
QC Level: LEVEL 2
Date Logged: 3/5/2020

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2003206-009A	DS-9	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x3"	☐	3/4/2020 10:12	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	
2003206-010A	DS-10	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x3"	☐	3/4/2020 10:29	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	
2003206-011A	DS-11	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x3"	☐	3/4/2020 10:39	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	
2003206-012A	DS-12A	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x3"	☐	3/4/2020 10:53	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	
			SW8260B (VOCs)			☐		5 days		☐	
			SW8082 (PCBs Only)			☐		5 days		☐	
2003206-013A	DS-12B	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x3"	☐	3/4/2020 10:55	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	
			SW8260B (VOCs)			☐		5 days		☐	
			SW8082 (PCBs Only)			☐		5 days		☐	
2003206-014A	DS-13A	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x3"	☐	3/4/2020 11:05	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: EARTH SYSTEMS PACIFIC
Client Contact: Brett Faust
Contact's Email: bfaust@earthsystems.com

Project: 303754-001; Monterey Road Development
Comments:

Work Order: 2003206
QC Level: LEVEL 2
Date Logged: 3/5/2020

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2003206-014A	DS-13A	Soil	SW8260B (VOCs)	1	Stainless Steel tube 2"x3"	☐	3/4/2020 11:05	5 days		☐	
			SW8082 (PCBs Only)			☐		5 days		☐	
2003206-015A	DS-13B	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x3"	☐	3/4/2020 11:10	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	
			SW8260B (VOCs)			☐		5 days		☐	
			SW8082 (PCBs Only)			☐		5 days		☐	
2003206-016A	DS-14A	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x3"	☐	3/4/2020 11:15	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	
			SW8260B (VOCs)			☐		5 days		☐	
			SW8082 (PCBs Only)			☐		5 days		☐	
2003206-017A	DS-14B	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x3"	☐	3/4/2020 11:19	5 days		☐	
			SW6020 (CAM 17)			☐		5 days		☐	
			SW8260B (VOCs)			☐		5 days		☐	
			SW8082 (PCBs Only)			☐		5 days		☐	
2003206-018A	C1a,C1b,C1c,C1d	Soil	SW8081A (OC Pesticides)	4 / (4:1)	Stainless Steel tube 2"x3"	☐	3/4/2020 9:25	5 days		☐	
2003206-019A	C2a,C2b,C2c,C2d	Soil	SW8081A (OC Pesticides)	4 / (4:1)	Stainless Steel tube 2"x3"	☐	3/4/2020 9:47	5 days		☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: EARTH SYSTEMS PACIFIC
Client Contact: Brett Faust
Contact's Email: bfaust@earthsystems.com

Project: 303754-001; Monterey Road Development
Comments:

Work Order: 2003206
QC Level: LEVEL 2
Date Logged: 3/5/2020

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2003206-020A	C3a,C3b,C3c,C3d	Soil	SW8081A (OC Pesticides)	4 / (4:1)	Stainless Steel tube 2"x3"	☐	3/4/2020 10:06	5 days		☐	
2003206-021A	C4a,C4b,C4c,C4d	Soil	SW8081A (OC Pesticides)	4 / (4:1)	Stainless Steel tube 2"x3"	☐	3/4/2020 10:23	5 days		☐	
2003206-022A	C5a,C5b,C5c,C5d	Soil	SW8081A (OC Pesticides)	4 / (4:1)	Stainless Steel tube 2"x3"	☐	3/4/2020 10:41	5 days		☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

General COC

MAI Work Order # 20032206

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701
Telephone: (877) 252-9262 / Fax: (925) 252-9269
www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush | 2 Day Rush | 3 Day Rush | STD ● | Quote #
J-Flag / MDL | ESL | Cleanup Approved | Dry Weight | Bottle Order #
Delivery Format: PDF | GeoTracker EDF | EDD | Write On (DW) | Detect Summary

Report To: Brett Faust | Bill To: Same
Company: Earth Systems Pacific
Address: 500 Park Center Drive, Ste. 1, Hollister, CA 95023
Email: bfaust@earthsystems.com | Tele: 831-637-2133
Project Name: Monterey Road Development | Project #: 303754-001
Project Location: Morgan Hill, CA | PO #
Sampler Signature: B Faust

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	Multi Range as Gas, Diesel, and Motor Oil (8021/8015)	BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silica Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)*	Baylands Requirements	Lab to filter sample for dissolved metals analysis
DS-1	3/4/20	9:17	1	S	1	●												●			
DS-2	3/4/20	9:19	1	S	1	●												●			
DS-3	3/4/20	9:26	1	S	1	●												●			
DS-4	3/4/20	9:34	1	S	1	●												●			
DS-5	3/4/20	9:37	1	S	1	●												●			
DS-6	3/4/20	9:46	1	S	1	●												●			
DS-7	3/4/20	9:54	1	S	1	●												●			
DS-8	3/4/20	10:07	1	S	1	●												●			
DS-9	3/4/20	10:12	1	S	1	●												●			
DS-10	3/4/20	10:29	1	S	1	●												●			

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
B Faust ESP	3/4/20	1600		3/5/20	09:35

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other
Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 4.2/WP °C Initials TP

MAI Work Order # _____

7

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701
Telephone: (877) 252-9262 / Fax: (925) 252-9269
www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time:	1 Day Rush		2 Day Rush		3 Day Rush		STD	●	Quote #						
J-Flag / MDL		ESL		Cleanup Approved		Dry Weight		Bottle Order #							
Delivery Format:	PDF		GeoTracker EDF		EDD		Write On (DW)		Detect Summary						

Report To: Brett Faust Bill To: Same

Company: Earth Systems Pacific

Address: 500 Park Center Drive, Ste. 1, Hollister , CA 95023

Email: bfaust@earthsystems.com Tele: 831-637-2133

Project Name: Monterey Road Development Project #: 303754-001

Project Location: Morgan Hill, CA PO #

Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	Multi Range as Gas, Diesel, and Motor Oil (8021/8015)	BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silca Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)*	Baylands Requirements	Lab to filter sample for dissolved metals analysis			
DS-11	3/4/20	10:39	1	S	1	●												●						
DS-12A	3/4/20	10:53	1	S	1	●								●	●			●						
DS-12B	3/4/20	10:55	1	S	1	●								●	●			●						
DS-13A	3/4/20	11:05	1	S	1	●								●	●			●						
DS-13B	3/4/20	11:10	1	S	1	●								●	●			●						
DS-14A	3/4/20	11:15	1	S	1	●								●	●			●						
DS-14B	3/4/20	11:19	1	S	1	●								●	●			●						

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
	3/4/20	1600		3/5/20	09:35

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp _____ °C Initials _____

MAI Work Order # _____

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701
Telephone: (877) 252-9262 / Fax: (925) 252-9269
www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush | 2 Day Rush | 3 Day Rush | STD ● | Quote #
J-Flag / MDL | ESL | Cleanup Approved | Dry Weight | Bottle Order #
Delivery Format: PDF | GeoTracker EDF | EDD | Write On (DW) | Detect Summary

Report To: Brett Faust — Bill To: Same
Company: Earth Systems Pacific
Address: 500 Park Center Drive, Ste. 1, Hollister , CA 95023
Email: bfaust@earthsystems.com — Tele: 831-637-2133
Project Name: Monterey Road Development — Project #: 303754-001
Project Location: Morgan Hill, CA — PO #
Sampler Signature: BFaust

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative
C1a	3/4/20	9:20	1	S	1
C1b	3/4/20	9:22	1	S	1
C1c	3/4/20	9:23	1	S	1
C1d	3/4/20	9:25	1	S	1
C2a	3/4/20	9:40	1	S	1
C2b	3/4/20	9:41	1	S	1
C2c	3/4/20	9:44	1	S	1
C2d	3/4/20	9:47	1	S	1

Analysis Requested

Multi Range as Gas, Diesel, and Motor Oil (8021/8015)	BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silca Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)*	Baylands Requirements	Lab to filter sample for dissolved metals analysis	Composite 4:1
							X									X
							X									X
							X									X
							X									X
							X									X
							X									X
							X									X
							X									X

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
BFaust ESP	3/4/20	1600		3/5/20	09:35

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp _____ °C Initials _____

MAI Work Order # _____

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701
Telephone: (877) 252-9262 / Fax: (925) 252-9269
www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time:	1 Day Rush		2 Day Rush		3 Day Rush		STD	●	Quote #				
J-Flag / MDL		ESL		Cleanup Approved		Dry Weight			Bottle Order #				
Delivery Format:	PDF		GeoTracker EDF		EDD		Write On (DW)		Detect Summary				

Report To: Brett Faust Bill To: Same

Company: Earth Systems Pacific

Address: 500 Park Center Drive, Ste. 1, Hollister , CA 95023

Email: bfaust@earthsystems.com Tele: 831-637-2133

Project Name: Monterey Road Development Project #: 303754-001

Project Location: Morgan Hill, CA PO #

Sampler Signature: BFaust

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative
C3a	3/4/20	10:02	1	S	1
C3b	3/4/20	10:04	1	S	1
C4c *	3/4/20	10:05	1	S	1
C4d *	3/4/20	10:06	1	S	1
C4a	3/4/20	10:20	1	S	1
C4b	3/4/20	10:21	1	S	1
C4c	3/4/20	10:22	1	S	1
C4d	3/4/20	10:23	1	S	1

Analysis Requested

Multi Range as Gas, Diesel, and Motor Oil (8021/8015)	BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silca Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)*	Baylands Requirements	Lab to filter sample for dissolved metals analysis	Composite 4:1		
							X									X		
							X									X		
							X									X		
							X									X		
							X									X		
							X									X		
							X									X		
							X									X		

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
BFaust ESP	3/4/20	1600		3/5/20	09:35

Comments / Instructions

*Sample labeled "C3"

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp _____ °C Initials _____

General COC

MAI Work Order # _____

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701
Telephone: (877) 252-9262 / Fax: (925) 252-9269
www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush | 2 Day Rush | 3 Day Rush | STD ● | Quote #
J-Flag / MDL | ESL | Cleanup Approved | Dry Weight | Bottle Order #
Delivery Format: PDF | GeoTracker EDF | EDD | Write On (DW) | Detect Summary

Report To: Brett Faust | Bill To: Same
Company: Earth Systems Pacific
Address: 500 Park Center Drive, Ste. 1, Hollister , CA 95023
Email: bfaust@earthsystems.com | Tele: 831-637-2133
Project Name: Monterey Road Development | Project #: 303754-001
Project Location: Morgan Hill, CA | PO #
Sampler Signature: BFaust

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative
C5a	3/4/20	10:38	1	S	1
C5b	3/4/20	10:39	1	S	1
C5c	3/4/20	10:40	1	S	1
C5d	3/4/20	10:41	1	S	1

Analysis Requested

Multi Range as Gas, Diesel, and Motor Oil (8021/8015)	BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silca Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)*	Baylands Requirements	Lab to filter sample for dissolved metals analysis	Composite 4:1		
							X									X		
							X									X		
							X									X		
							X									X		

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
BFaust ESP	3/4/20	1600		3/5/20	09:35

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp _____ °C Initials _____

Page 5 of 5

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	**Earth Systems Pacific**	Date and Time Received:	**3/5/2020 09:35**
Project:	**303754-001; Monterey Road Development**	Date Logged:	**3/5/2020**
		Received by:	Tina Perez
WorkOrder №:	**2003206** Matrix: Soil	Logged by:	Tina Perez
Carrier:	Golden State Overnight		

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐		
Chain of custody signed when relinquished and received?	Yes	☑	No	☐		
Chain of custody agrees with sample labels?	Yes	☑	No	☐		
Sample IDs noted by Client on COC?	Yes	☑	No	☐		
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐		
Sampler's name noted on COC?	Yes	☑	No	☐		
COC agrees with Quote?	Yes	☐	No	☐	NA	☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☑	No	☐	NA	☐
Shipping container/cooler in good condition?	Yes	☑	No	☐		
Samples in proper containers/bottles?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA	☐
Samples Received on Ice?	Yes	☑	No	☐		
(Ice Type: WET/BLU)						
Sample/Temp Blank temperature	Temp: 4.2°C				NA	☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☐	No	☐	NA	☑
Sample labels checked for correct preservation?	Yes	☑	No	☐		
pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO3: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA	☑
UCMR Samples:						
pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes	☐	No	☐	NA	☑
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes	☐	No	☐	NA	☑

Comments:

APPENDIX H

MCCAMPBELL ANALYTICAL LABORATORY REPORT

EARTH SYSTEMS PACIFIC
QUALIFICATIONS STATEMENT FOR ENVIRONMENTAL WORK

The Environmental Professional who provided oversight for this project meets the qualifications specified by US EPA AAI and ASTM E1527-05. An EP is defined by US EPA AAI as "a person who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding conditions indicative of releases or threatened releases (of hazardous substances) on, at, in, or to a property, sufficient to meet the objectives and performance factors (of the rule)." In addition, an environmental professional must have:

- A state, tribal, or territory-issued certification or license (Professional Engineer or Professional Geologist) and three years of relevant full-time work experience; or
- A Baccalaureate degree or higher in science or engineering and five years of relevant full-time work experience; or
- Ten years of relevant full-time work experience.

The attached resume(s) describe the credentials of the environmental professionals who directed field work, research and/or report preparation work on the project.

BRETT FAUST Years of Experience: 26

Senior Geologist

QUALIFICATIONS

Professional Geologist, California, No. 7025
Certified Engineering Geologist, California, No. 2386
B.S. Geology, 1993, San Jose State University, (CA, USA)

PROFESSIONAL EXPERIENCE

Employed with Earth Systems Pacific Hollister Office, Mr. Faust is a professional geologist with more than 20 years' experience in managing environmental and engineering geologic projects and performing soils and materials testing. Specific experience includes: soil and ground water contamination studies measuring and modeling fate and transport, Phase I and II environmental site assessments, and geologic fault and landslide studies.

Association of Engineering Geologists, Member

Appendix E

Phase II Environmental Site Assessment

GeoSolve, Inc.®
Geoscience Solutions rather than Status-Quo



Visit us at www.geosolve-inc.com

PHASE II ENVIRONMENTAL SITE ASSESSMENT

For

Parts and Tow
18960 Monterey Road
Morgan Hill, California

For

JEMCOR DEVELOPMENT PARTNERS

By

GeoSolve, Inc.

Project No. 2020-06

October 5, 2020

111 Bank Street, Suite 392 • Grass Valley, CA 95945
rcampbell@geosolve-inc.com • (925) 963-1198



GeoSolve, Inc.®
Geoscience Solutions rather than Status-Quo

Visit us at www.geosolve-inc.com

Project No. 2020-06
October 5, 2020

Mr. Jonathan Emami
JEMCOR Development Partners
1700 South El Camino Real, Suite 400
San Mateo, California 94402

Subject: Parts and Tow
18960 Monterey Road
Morgan Hill, California
PHASE II ENVIRONMENTAL SITE ASSESSMENT

Dear Mr. Emami:

At your request, ***GeoSolve, Inc.*** is pleased to present our Phase II Environmental Site Assessment (ESA) for the above referenced site (Investigation). The subject site consists of one parcel located at 18960 Monterey Road in Morgan Hill, California. The subject property consists of a commercial property occupied by Parts and Tow, an automobile wrecking yard and tow yard.

The purpose of this Phase II ESA was to evaluate the lateral and vertical extent of contaminants of concern (COC) identified in Earth Systems Pacific Phase I Environmental Site Assessment and Limited Phase II Environmental Site Assessment (Earth Systems Pacific, March 26, 2020) conducted at the site.

Should you have any questions relating to the contents of this Investigation or require any additional information, please contact our office at your convenience.

Sincerely,

GeoSolve, Inc.

PROFESSIONAL GEOLOGIST
ROBERT D. CAMPBELL
P.G., C.E.G.
No. 2089
CERTIFIED ENGINEERING GEOLOGIST
Exp 11.30.20
STATE OF CALIFORNIA

Robert D. Campbell, M.S., P.G., C.E.G., Q.S.D.
Principal Engineering Geologist

Copies: 1 to JEMCOR Development Partners

111 Bank Street, Suite 392 • Grass Valley, CA 95945
rcampbell@geosolve-inc.com • (925) 963-1198

TABLE OF CONTENTS

LETTER OF TRANSMITTAL
PHASE II ENVIRONMENTAL SITE ASSESSMENT

INTRODUCTION 1
Background 1
Geology and Hydrogeology 1
Fieldwork 2
Subsurface Soil Description 3
Temporary Vapor-Probe Installation 4
Shallow Soil Laboratory Methods and Results 4
Shallow Subsurface Soil Laboratory Methods and Results 6
Subsurface Soil Laboratory Methods and Results 7
Soil-Gas Sampling and Laboratory Methods 8
Laboratory Analytical Results of Soil-Gas Samples 8
Groundwater Sampling and Laboratory Methods and Analytical Results 9
DISCUSSION 11
CONCLUSIONS 12
RECOMMENDATIONS 13
REFERENCES 13

FIGURES

FIGURE 1 - SITE VICINITY MAP
FIGURE 2 - SITE PLAN

APPENDICES

APPENDIX A – LOGS OF BORINGS

APPENDIX B – PACE ANALYTICAL AND McCAMPELL ANALYTICAL LABORATORY ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY DOCUMENTS

INTRODUCTION

JEMCOR Development Partners (JEMCOR) contracted with ***GeoSolve, Inc.*** to conduct a Phase II Environmental Site Assessment (ESA) of the subject site. This work was conducted in accordance with Proposal No. 20-14 dated April 17, 2020; however, due to the high density of the soil, groundwater was not encountered in borings B-1 through B-12. Five additional borings, B-13 through B-17 were drilled to groundwater down- and cross-gradient from the repair building at the site. This Phase II ESA summarizes the results of shallow and subsurface soil samples, soil-gas samples and groundwater samples collected and analyzed from the site.

The subject site is the Parts and Tow wrecking yard located at 18960 Monterey Road in Morgan Hill, California. The subject site has Assessor's Parcel Number (APN) 726-36-059 and is occupies approximately 14.8-acres of land. The purpose of this Phase II ESA was to evaluate contaminants of concern (COC) in the shallow soil, subsurface soil, soil-gas, and groundwater from randomly selected borings at the subject site. The site vicinity is shown on Figure 1 and the site plan is shown on Figure 2.

Background

In March 2020, Earth Systems Pacific conducted a Phase I ESA and Limited Phase II ESA (March 26, 2020) concluded the following:

- The site was operated as a winery between at least 1939 and 1963, and as an automobile salvage yard since that time.

- The site is listed in regulatory agency databases in connection with handling, storing, and recycling/disposing of hazardous substance related to automobiles, and a minor communication facility at the site. None of the listings indicate that a documented release of hazardous substances has occurred at the site. Additionally, because of the type of listing, status, and/or distance from the subject site, none of the nearby listed sites appear to pose an environmental risk to the subject site.

- Conditions on adjacent properties observed during the site reconnaissance are not likely to adversely affect the subject property.

- The Limited Phase II soil screening revealed the presence of elevated levels of lead, nickel, and chromium distributed at the site, and locally present elevated levels of diesel and motor oil in shallow soil at the site. While results of the limited soil screening did not reveal the presence of hazardous levels of metals, many of the lead, nickel, and chromium levels were well above the California Regional Water Quality Control Board – Region 2 (RWQCB)

Environmental Screening Levels (ESL) thresholds for direct human contact, and the potential exists that higher levels could be present on the site.

Based on the results of fourteen discrete soil samples (DS-1 through DS-14) listed in the Phase I ESA and Limited Phase II ESA (Earth Systems Pacific, March 26, 2020), the main COCs beneath the site include total extractable petroleum hydrocarbons reported as diesel and motor-oil (TEPHd and TEPHmo), and CAM 22 metals. TEPHd was detected up to 3,500 micrograms per kilogram (mg/Kg) and TEPHmo was detected up to 17,000 mg/Kg in discrete soil sample DS-12 and lead was detected up to 700 mg/Kg in sample DS-8. All soil samples were collected at approximately 0.5-foot below ground surface (bgs). No evaluation of subsurface soil and/or groundwater was conducted in the Phase I and Limited Phase II ESA. Although volatile organic compounds (VOCs) and polychlorinated biphenyls (PCBs) were evaluated in composited soil samples 1a,b,c,d through 5a,b,c,d at the site, the sample density over the site was not robust enough to evaluate the entire property in shallow and subsurface soil.

Geology and Hydrogeology

The materials underlying the site are mapped as Late Pleistocene alluvium (Qpa) by Helley and Lajoie (1979), which consist of weakly consolidated, slightly weathered, poorly sorted, irregular interbedded clay, silt, sand, and gravel units. The Late Pleistocene alluvium contains local accumulations of freshwater gastropods and pelecypods and continental vertebrate fauna, including camel, bison, horse, sloth, and mammoth fossils. The Late Pleistocene alluvium has a maximum thickness of 150 feet and ranges in age from 35,000 to 70,000 years old, which was deposited from flowing water in stream channels, on stream terraces, and on alluvial fans.

The active trace of the Calaveras Fault is situated approximately 3-miles east of the subject site, and is considered active according to the Alquist-Priolo Earthquake Fault Zones Act (1997), and is a strike-slip fault with right-lateral motion (http://gmw.consrv.ca.gov/shmp/download/quad/MOUNT_SIZER/maps/MT_SZR.PDF).

Groundwater beneath the site is approximately 39 feet to 42 feet bgs and flows toward the east-northeast along local topography.

Fieldwork

Prior to commencement of fieldwork, the boring locations were sprayed with white paint by a ***GeoSolve, Inc.*** field geologist and underground service alert (USA) was notified on May 3, 2020. On May 7 and 8, 2020, a ***GeoSolve, Inc.*** field geologist observed Penecore Drilling, Inc., a State-licensed drilling contractor (C57-906899) of Woodland, California, advance twelve (12) borings

to approximately 30 feet to 33 feet bgs and six shallow borings (VP-1 through VP-6) to approximately 5 feet bgs using a direct-push rig, equipped with an Enviro-Core (dual-tube) sampling system. The locations of borings B-1 through B-12 and VP-1 through VP-6 are shown on Figure 2. Each sampling rod was lined with Acetate sample liners and each boring was continuously cored. Each boring was logged in accordance with the Unified Soil Classification System (USCS) and soil samples were hand-sawed at 0.5-foot, 1-foot, 5-feet, and 10-feet bgs. Soil samples were not collected from borings VP-1 through VP-6 for laboratory analysis since the borings were being analyzed for soil-gas.

On September 17, 2020, a ***GeoSolve, Inc.*** field geologist visited the subject site and observed Exploration GeoServices, Inc., a State licensed drilling contractor (C57-484288) of San Jose, California, drill five borings B-13 through B-17 to groundwater in order to collect groundwater samples beneath the site. No soil samples were retained for laboratory analysis, but the borings were logged in accordance with the USCS. Groundwater from borings B-15 and B-16 contained too much sediment for groundwater analysis and required re-drilling.

On September 28, 2020, a ***GeoSolve, Inc.*** field geologist visited the subject site and observed Exploration GeoServices, Inc. drill two additional borings B-15 and B-16 to groundwater in order to collect groundwater samples beneath the site. No soil samples were retained for laboratory analysis, but the borings were logged in accordance with the USCS.

Subsurface Soil Description

The subsurface soil materials consisted of gray-brown sandy gravel (fill) from ground surface to approximately 0.5-foot bgs, which was underlain by brown silty medium sand to approximately 10 feet to 13 feet bgs. The silty sand was underlain by brown to dark brown clayey to sandy gravel to approximately 20 feet to 25 feet bgs, which was underlain by either brown silty clay or brown fine sandy silt to approximately 33 feet bgs. The silty clay and/or sandy silt was underlain by brown coarse sandy gravel with clay to approximately 40 feet bgs, and was underlain by light brown silty sand to approximately 44 feet bgs. Fill was encountered down to approximately 19 feet bgs in boring B-2, near the garage building. Brick fragments and black soil were encountered at 5 feet bgs in boring B-2. No petroleum or solvent odors were noted in any soil sample collected from the borings.

Groundwater was not encountered in borings B-1 through B-12. However, groundwater was encountered in borings B-13 through B-17 between 41 feet bgs to 43 feet bgs and stabilized between 39 feet to 41 feet bgs after 20 minutes at 36 feet bgs. The details of the subsurface soil materials are shown on the logs of boring attached to Appendix A.

Temporary Vapor-Probe Installation

Once borings VP-1 through VP-6 were drilled, they were completed as temporary vapor-probes installed at 5 feet bgs. The soil-gas sampling probes were installed with one-foot screened intervals from 4- to 5-feet bgs using Nylon-tubing. Soil-gas probes VP-1 through VP-6 were allowed to set for 24-hours prior to sampling in accordance with the California Department of Toxic Substances Control (DTSC) Soil-Gas Advisory (2012). Installation of the temporary soil-gas probes was conducted as follows:

- Approximately 6-inches of Monterey #3 sand was placed on the bottom of the borehole at 5 feet bgs;
- A down-hole rod was used to center a permeable vapor tip connected to 0.25-inch diameter Nylaflow tubing on the top of the sand, and an additional 6 inches of Monterey #3 sand was placed over the vapor-tip.
- A 12-inch layer of dry granular bentonite was placed on top of the Monterey #3 sand, and a 2-foot layer of hydrated bentonite, followed by a 1-foot layer of dry bentonite was placed in the boring to grade.

Shallow Soil Laboratory Methods and Results

Shallow soil samples B1-0.5 through B12-0.5 were delivered under chain-of-custody documentation to Pace Analytical, Inc., a California-certified hazardous waste testing laboratory (Certification No. 2932) of Sacramento, California for analysis. Shallow soil samples B1-0.5 through B12-0.5 were analyzed for CAM 17 metals, VOCs, polychlorinated biphenyls (PCBs) and semi-volatile organic compounds reported as total petroleum hydrocarbons reported as diesel (TPHd) and total petroleum hydrocarbons reported as motor-oil (TPHmo) using Environmental Protection Agency (EPA) Methods 6010B/7471A, 8260B, 8082 and 8015m. Laboratory analytical results of shallow soil samples are shown on Table 1 and the Pace Analytical, Inc. laboratory analytical report and chain-of-custody are attached to Appendix B.

Table 1
Laboratory Analytical Results of Shallow Soil Samples
Parts and Tow - 18960 Monterey Road
Morgan Hill, California
May 7 and 8, 2020

Sample ID	Depth (feet)	As (mg/Kg)	Pb (mg/Kg)	Hg (mg/Kg)	TCE (mg/Kg)	PCE (mg/Kg)	PCBs (mg/Kg)	TPHd (mg/Kg)	TPHmo (mg/Kg)
B1-0.5	0.5	2.88	38.8	0.0476	<0.000597	<0.000917	<0.0121	**709**	2,490
B2-0.5	0.5	1.00	24.5	0.0659	<0.000598	0.000999	<0.0121	<75.1	1,324
B3-0.5	0.5	5.87	9.73	0.0531	<0.000909	<0.00139	<0.0121	<0.814	<1.48
B4-0.5	0.5	5.24	5.05	0.0404	<0.000959	<0.000625	<0.0121	<0.785	<1.42
B5-0.5	0.5	3.76	**99.5**	0.0771	<0.000666	<0.00102	<0.0135	197	987
B6-0.5	0.5	5.12	72.5	0.0397	<0.000612	<0.000940	<0.0124	1.75	29.8
B7-0.5	0.5	8.33	9.43	0.0341	<0.000680	<0.00104	<0.0137	<0.853	<1.55
B8-0.5	0.5	6.54	13.7	0.110	<0.000672	<0.00103	<0.0136	<0.844	2.35
B9-0.5	0.5	5.27	11.2	0.0594	<0.000653	<0.00100	<0.0132	<0.819	11.0
B10-0.5	0.5	2.04	7.58	0.409	<0.000675	<0.00104	<0.0136	<170	825
B11-0.5	0.5	3.00	48.8	0.0476	<0.000647	<0.000993	<0.0131	66.1	377.8
B12-0.5	0.5	5.93	37.5	0.0913	<0.000609	<0.000934	<0.0123	<15.3	246
B12-0.5D	0.5	NA	NA	NA	NA	NA	<0.0122	NA	NA
ESL	---	*0.0067**	*82*	*13*	*0.95*	*0.59*	*0.23*	*260*	*12,000*

As = Arsenic
Pb = Lead
Hg = Mercury
TCE = Trichloroethylene
PCE = Tetrachloroethylene
mg/Kg = milligrams per kilogram, equivalent to parts per million (ppm)
ESL = Environmental Screening Level, RWQCB – Region 2 (January 2019)
* = Cal EPA uses arsenic background concentrations up to 15 mg/Kg as cleanup goals
B12-0.5D = duplicate sample
NA = not analyzed
< = less than laboratory method detection limit

Shallow Subsurface Soil Laboratory Methods and Results

Soil samples B1-1 through B12-1 were delivered under chain-of-custody documentation to Pace Analytical, Inc. for analysis. The shallow subsurface soil samples were analyzed for CAM 17 metals, VOCs and TPHd and TPHmo using EPA Methods 6010B/7471A, 8260B, and 8015m. Laboratory analytical results of subsurface soil samples are shown on Table 2 and the Pace Analytical, Inc. laboratory analytical report and chain-of-custody are attached to Appendix B.

Table 2
Laboratory Analytical Results of Shallow Subsurface Soil Samples
Parts and Tow - 18960 Monterey Road
Morgan Hill, California
May 7 and 8, 2020

Sample ID	Depth (feet)	As (mg/Kg)	Pb (mg/Kg)	Hg (mg/Kg)	TCE (mg/Kg)	PCE (mg/Kg)	TPHd (mg/Kg)	TPHmo (mg/Kg)
B1-1	1	8.44	9.50	0.0736	<0.000633	<0.000971	<0.795	<1.44
B1-1D	1	NA	NA	NA	NA	NA	<0.799	<1.45
B2-1	1	3.81	12.2	0.0597	<0.000647	0.00124	4.74	59.1
B3-1	1	6.44	8.47	0.0310	0.00139	<0.000991	<0.811	<1.47
B4-1	1	7.80	8.92	0.121	<0.000640	<0.000981	<0.803	<1.46
B4-1D	1	6.22	10.3	0.0817	NA	NA	NA	NA
B5-1	1	5.70	9.31	0.0471	<0.000647	<0.000993	<0.812	<1.47
B6-1	1	7.34	9.15	0.0211	<0.000628	<0.000963	<0.788	<1.43
B7-1	1	5.10	8.86	0.0679	<0.000626	<0.000961	<0.786	<1.43
B8-1	1	12.2	8.91	0.0536	<0.000702	<0.00108	2.97	<1.60
B9-1	1	7.37	10.5	0.0532	<0.000691	<0.00106	0.868	4.82
B10-1	1	12.2	10.3	0.0425	<0.000666	<0.00102	3.78	59.1
B11-1	1	6.72	7.21	0.0401	<0.000652	<0.00100	0.982	3.08
B12-1	1	6.37	7.24	<0.0209	<0.000679	<0.00104	<0.853	<1.55
ESL	---	*0.0067**	*82*	*13*	*0.95*	*0.59*	*260*	*12,000*

As = Arsenic
Pb = Lead
Hg = Mercury
TCE = Trichloroethylene
PCE = Tetrachloroethylene
mg/Kg = milligrams per kilogram, equivalent to parts per million (ppm)
ESL = Environmental Screening Level, RWQCB – Region 2 (January 2019)
* = Cal EPA uses arsenic background concentrations up to 15 mg/Kg as cleanup goals
B1-1D = duplicate sample
NA = not analyzed

< = less than laboratory method detection limit

Subsurface Soil Laboratory Methods and Results

Soil samples B1-5 and B1-10 through B12-5 and B12-10 were delivered under chain-of-custody documentation to Pace Analytical, Inc. for analysis. The subsurface soil samples were analyzed for VOCs and TPHd and TPHmo using EPA Methods 8260B and 8015m. Laboratory analytical results of subsurface soil samples are shown on Table 3 and the Pace Analytical, Inc. laboratory analytical report and chain-of-custody are attached to Appendix B.

Table 3
Laboratory Analytical Results of Subsurface Soil Samples
Parts and Tow - 18960 Monterey Road
Morgan Hill, California
May 7 and 8, 2020

Sample ID	Depth (feet)	TCE (mg/Kg)	PCE (mg/Kg)	TPHd (mg/Kg)	TPHmo (mg/Kg)
B1-5	5	<0.000639	<0.000981	<0.802	5.44
B1-10	10	<0.000622	<0.000954	<0.790	<1.42
B2-5	5	<0.000662	0.00131	<0.830	<1.51
B2-10	10	<0.000644	<0.000989	<0.809	<1.47
B2-15	15	<0.000644	<0.000998	<0.808	<1.47
B3-5	5	0.00962	<0.000976	<0.799	<1.45
B3-10	10	0.0289	<0.000968	<0.892	<1.44
B4-5	5	<0.000633	<0.000971	<0.795	<1.44
B4-10	10	<0.000649	<0.000996	<0.814	<1.48
B5-5	5	<0.000631	<0.000969	<0.792	<1.44
B5-10	10	<0.000693	<0.00106	<0.870	<1.58
B6-5	5	<0.000683	<0.00105	<0.857	<1.55
B6-10	10	<0.000618	<0.000948	<0.775	<1.41
B7-5	5	<0.000708	<0.00109	<0.889	<1.61
B7-10	10	<0.000668	<0.00103	3.56	<1.52
B8-5	5	<0.000671	<0.00103	<0.842	<1.53
B8-10	10	<0.000624	<0.000957	1.08	<1.42
B9-5	5	<0.000605	<0.000929	<0.760	<1.38
B9-10	10	<0.000651	<0.000998	<0.817	<1.48
B10-5	5	<0.000630	<0.000967	2.21	<1.43
B10-10	10	<0.000640	<0.000982	1.91	<1.46

Sample ID	Depth (feet)	TCE (mg/Kg)	PCE (mg/Kg)	TPHd (mg/Kg)	TPHmo (mg/Kg)
B11-5	5	0.000672	<0.00101	<0.823	<1.49
B11-10	10	<0.000647	<0.000992	<0.812	<1.47
B12-5	5	<0.000626	<0.000960	<0.786	3.22
B12-10	10	<0.000705	<0.00108	<0.885	<1.61
ESL	---	*0.95*	*0.59*	*260*	*12,000*

TCE = Trichloroethylene
PCE = Tetrachloroethylene
mg/Kg = milligrams per kilogram, equivalent to parts per million (ppm)
ESL = Environmental Screening Level, RWQCB – Region 2 (January 2019)
B1-1D = duplicate sample
NA = not analyzed
< = less than laboratory method detection limit

Soil-Gas Sampling and Laboratory Methods

On May 8, 2020, a ***GeoSolve, Inc.*** field geologist used 1-liter Summa canisters pre-pressurized to negative (-) 30 inches of mercury (Hg) to collect soil-gas samples from temporary vapor probes VP-1 through VP-6.

Prior to sampling activities, clean Nylon-tubing was attached to the sampling manifolds with pressure-gauges. A 6-liter purge Summa canister was attached to the manifold and connected to each vapor-probe prior to sampling. Approximately 10 inches of Hg were vacuumed from each temporary vapor probe prior to connecting the 1-liter Summa canister to each manifold. A shut-in test was performed for 1-minute on each vapor probe to ensure the connection was properly fitted, then an alcohol wipe was placed beneath the sampling manifold and each 1-liter Summa canister was allowed to fill with soil-gas until a pressure of approximately -10 inches of Hg was attained. The valves were closed, and each sample was labeled and placed within a cardboard box. Soil-gas samples VP1-5 through VP6-5 were delivered under chain-of-custody documentation to Pace Analytical, Inc., a California certified hazardous waste testing laboratory (Certification No. 2932) in Sacramento, California for analysis. The soil-gas samples were analyzed for VOCs using EPA Method TO-15.

Laboratory Analytical Results of Soil-Gas Samples

The laboratory analytical results of soil-gas samples collected from soil-gas sample probes VP-1 through VP-6 are summarized in Table 4 below and the Pace Analytical, Inc. laboratory analytical report and chain-of-custody form are attached to Appendix B.

Table 4
Laboratory Analytical Results of Soil-Gas Samples
Parts and Tow
18960 Monterey Road
Morgan Hill, California
May 8, 2020

Sample ID	Depth (feet)	VC ($\mu g/m^3$)	DCE ($\mu g/m^3$)	TCE ($\mu g/m^3$)	PCE ($\mu g/m^3$)
VP1-5	5	<0.511	<0.908	<1.07	<1.36
VP2-5	5	<0.511	<0.793	<1.07	6.54
VP3-5	5	<0.511	<0.793	10.1	1.74
VP4-5	5	<0.511	<0.793	<1.07	<1.36
VP5-5	5	<0.511	<0.793	<1.07	<1.36
VP6-5	5	<0.511	<0.793	<1.07	7.47
ESL	---	*5.2*	*280*	*16*	*15*

VC = vinyl chloride
DCE = cis-1,2-Dichloroethylene
TCE = Trichloroethylene
PCE = Tetrachloroethylene
$\mu g/m^3$ = micrograms per cubic meter
ESL = Environmental Screening Level, RWQCB – Region 2 (January 2019)
< = less than laboratory method detection limit

Groundwater Sampling and Laboratory Methods and Analytical Results

Since VOCs were not detected at elevated concentrations in soil-gas and/or soil samples, groundwater was evaluated for TEPHd and TEPHmo. On September 17, 2020, after the drilling of borings B-13 through B-17, a ***GeoSolve, Inc.*** field geologist used disposable Teflon bailers to obtain groundwater from each boring (B-13W through B-17W) within the hollow-stem augers after the water had stabilized for at least 40 minutes. The bailed groundwater was carefully decanted into two unpreserved amber 40 milliliter VOAs per boring, which were sealed, checked for headspace, labeled, and placed within a pre-chilled ice chest for temporary storage. Groundwater samples B-13W through B-17W were delivered under chain-of-custody documentation to McCampbell Analytical, Inc., a State-certified hazardous waste testing laboratory (Certification No. 1644) in Pittsburg, California for analysis. Groundwater samples B-13W through B-17W were analyzed for TPHd and TEPHmo with silica-gel cleanup using EPA Methods SW856/SW3550B/3630C/SW8015B. Groundwater samples B-13W and B-17W were also analyzed for pH using Methods SM4500H+B-2000 and SM4500H+B. The laboratory results

of the groundwater samples are shown on Table 5 below and the McCampbell Analytical, Inc. laboratory analytical report and chain-of-custody are attached to Appendix B.

Once groundwater was collected, the borings were backfilled to grade with neat cement. Since all borings were drilled to less than 45 feet bgs, no boring permits were required through the Santa Clara Valley Water District.

Table 5
Laboratory Analytical Results of Groundwater Samples
Parts and Tow
18960 Monterey Road
Morgan Hill, California
September 17, 2020

Sample ID	Depth (feet)	pH	TPHd (µg/L)	TPHmo (µg/L)
B-13W	40	6.84	<50	<250
B-14W	39	NA	<50	<250
B-15W*	40	NA	---	---
B-16W*	39	NA	---	---
B-17W	41	7.25	<50	<250
ESL	---	*>9.0*	*100*	---

µg/L = micrograms per liter, equivalent to parts per billion (ppb)
NA = Not analyzed.
ESL = Environmental Screening Level, RWQCB – Region 2 (January 2019)
< = less than laboratory method detection limit
* = Samples contained too much sediment for groundwater analysis

Groundwater in borings B-15 and B-16 contained too much sediment (fine sand) to be analyzed as groundwater and were not tabulated in this table. ***GeoSolve, Inc.*** visited to the property again on September 28, 2020, and re-drilled borings B-15 and B-16 to groundwater and used clean 2-inch diameter temporary well screens (0.020-inch diameter machine slotted screen) in each boring to isolate groundwater from the formation sediment and collected two groundwater samples using clean Teflon bailers. The groundwater in the bailers was carefully decanted into two 40-ml unpreserved amber VOAs, which were sealed, checked for headspace, labeled, and placed within a pre-chilled ice chest for temporary storage. Groundwater samples B-13W through B-17W were delivered under chain-of-custody documentation to McCampbell Analytical, Inc. for analysis. Groundwater samples B-15W and B-16W were analyzed for TEPHd and TEPHmo with silica-gel cleanup using EPA Methods SW856/SW3550B/3630C/SW8015B.

The laboratory results of the groundwater samples are shown on Table 6 below and the McCampbell Analytical, Inc. laboratory analytical report and chain-of-custody are attached to Appendix B.

Once groundwater was collected, the borings were backfilled to grade with neat cement. Since all borings were drilled to less than 45 feet bgs, no boring permits were required through the Santa Clara Valley Water District.

Table 6
Laboratory Analytical Results of Groundwater Samples
Parts and Tow
18960 Monterey Road
Morgan Hill, California
September 28, 2020

Sample ID	Depth (feet)	TPHd (µg/L)	TPHmo (µg/L)
B-15W	40	<50	<250
B-16W	39	<50	<250
ESL	---	*100*	---

µg/L = micrograms per liter, equivalent to parts per billion (ppb)
ESL = Environmental Screening Level, RWQCB – Region 2 (January 2019)
< = less than laboratory method detection limit

DISCUSSION

Based on the laboratory analytical results obtained from the shallow soil samples, lead was only detected at 99.5 milligrams per kilogram (mg/Kg) in soil sample B4-0.5, which is slightly over the California Regional Water Quality Control Board – Region 2 (RWQCB) Environmental Screening Level (ESL) of 82 mg/Kg for residential development. All of the other metals, with the exception of arsenic, were detected above the ESL for residential development of 0.0067 mg/Kg. However, the Cal EPA utilizes background arsenic concentrations are the cleanup goal. Background concentrations of arsenic in southern Santa Clara Valley range from 1 mg/Kg up to 15 mg/Kg, depending the geology. All samples analyzed from the surficial and subsurface soil indicated arsenic concentrations within background levels. PCBs were not detected in any surficial soil samples analyzed from the site. Furthermore, VOCs were mostly not detected and exceptionally low concentrations of TCE and PCE were detected well below the ESLs of 0.95 mg/Kg and 0.59 mg/Kg for residential development. The highest TCE and PCE concentrations detected in soil

beneath the site were 0.0289 mg/Kg in soil sample B3-10 and 0.00124 mg/Kg in soil sample B2-1. This data indicates VOCs are present in the subsurface soil; however, well below their respective ESLs for residential development. This is equally represented by the exceptionally low concentrations of VOCs in shallow soil-gas within vapor-probes VP-1 through VP-6. The highest TCE concentration in soil gas was reported in VP3-5 at a concentration of 10.1 micrograms per cubic meter ($\mu g/m^3$), which is well below the ESL of 16 $\mu g/m^3$ for residential development. Equally, the highest PCE concentration in soil-gas was reported in soil-gas sample VP6-5 at 7.47 $\mu g/m^3$, which is below the residential ESL of 15 $\mu g/m^3$.

TPHd was detected up to 709 mg/Kg and TPHmo was detected up to 2,490 mg/Kg in soil sample B1-0.5. TPHd was detected above the residential ESL of 260 mg/Kg at this location; however, no other soil samples indicated elevated TPHd and/or TPHmo concentrations beneath the site. The elevated concentrations of TPHd and TPHmo Earth Systems Pacific (March 26, 2020) detected at the ground surface appear to be limited to exceedingly small locations and not laterally extensive. Furthermore, lead appears to be isolated to small locations as well and not laterally extensive.

No detectable concentrations of TPHd or TEPHmo were reported in groundwater samples collected from borings B-13 through B-17. Since VOCs were either not detected or detected at exceptionally low concentrations in soil-gas or subsurface soil, VOCs were not analyzed in the groundwater samples.

CONCLUSIONS

Based on the laboratory analytical results of the soil, soil-gas and groundwater samples collected and analyzed from borings B-1 through B-17, and soil-gas vapor probes VP-1 through VP-6, ***GeoSolve, Inc.*** concludes the following:

- Lead was the only elevated metal detected in soil at the site in soil sample B4-0.5 at 99.5 mg/Kg, which is slightly over the residential ESL of 82 mg/Kg. However, no other metals were detected above ESLs, with the exception of arsenic. However, arsenic was detected in soil at background concentrations, which is the standard of care for the Cal EPA.

- VOCs were mostly not detected and/or below ELSs in both soil and soil-gas beneath the site. PCBs were not detected in any shallow soil sample analyzed from the site.

- TPHd was only detected at an elevated concentration in soil within soil sample B1-0.5 at 709 mg/Kg, which is above the residential ESL of 260 mg/Kg. The other elevated concentrations of TPHd and TPHmo detected in the surficial soil by Earth Systems Pacific

(March 26, 2020) detected at the ground surface appear to be limited to exceedingly small locations and not laterally extensive. Furthermore, lead appears to be isolated to small locations as well and not laterally extensive.

- No detectable concentrations of TPHd (less than 50 µg/L) and no detectable concentrations of TEPHmo (less than 250 µg/L) were reported in groundwater samples collected from borings B-13 through B-17.

RECOMMENDATIONS

Based on the conclusions stated above, ***GeoSolve, Inc.*** recommends the following:

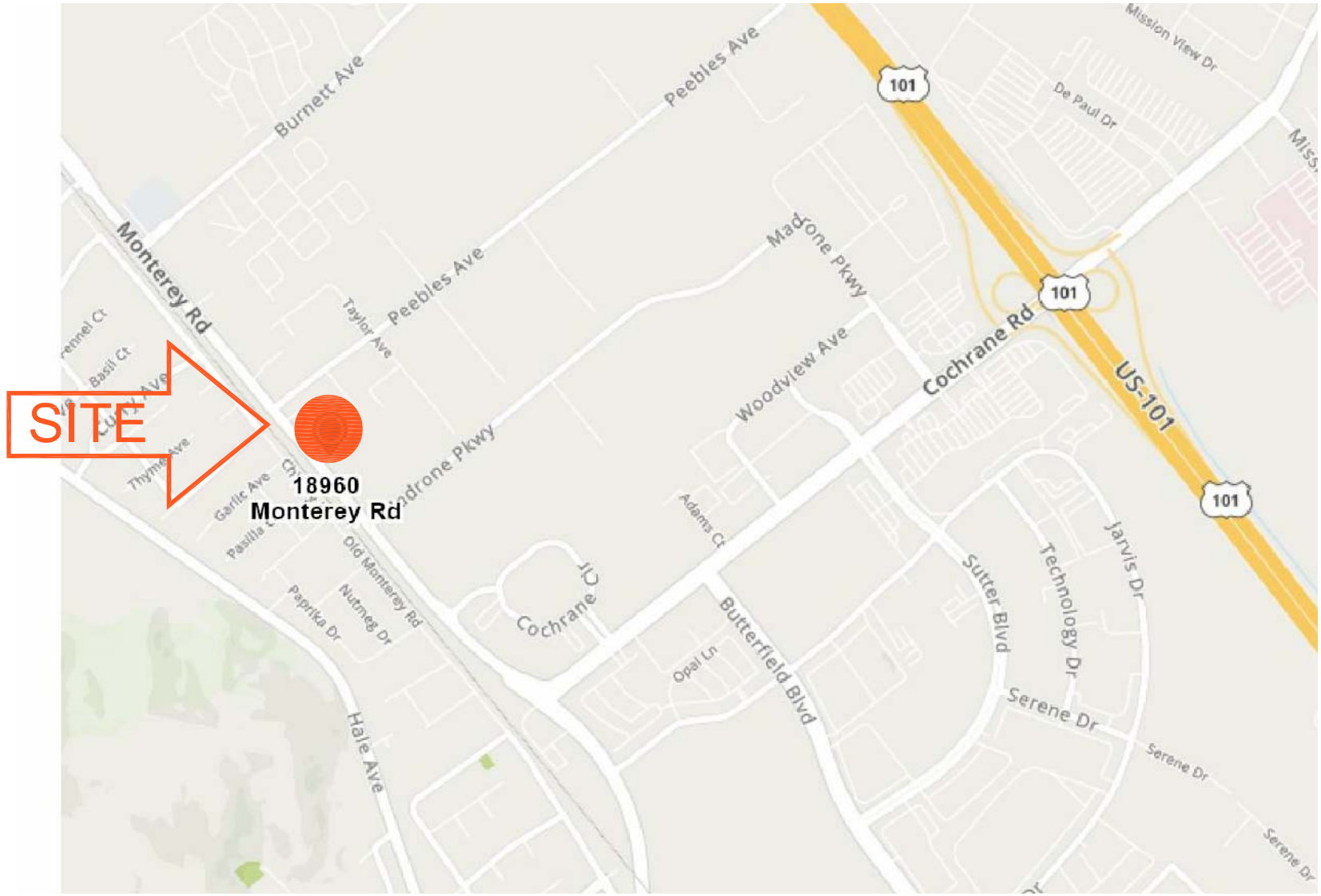
- Remove all wrecked automobiles and scrap metal from the site.

- Prepare a Workplan to conduct surficial soil remediation at the locations identified by Earth Systems Pacific and ***GeoSolve, Inc.*** The soil in these areas should be excavated to approximately 0.5-foot and confirmation soil samples collected from the excavated areas as detailed in the upcoming Workplan. Once the remediation work has been completed, prepare a Preliminary Endangerment Assessment (PEA) for the Cal EPA to review and close the site to further environmental work.

REFERENCES

Earth Systems Pacific, March 26, 2020. *Phase I Environmental Site Assessment and Limited Phase II Environmental Site Assessment at Parts and Tow, 18960 Monterey Road, Morgan Hill, California.*

Helley, E.J and LaJoie, K.R. *Flatland Deposits of the San Francisco Bay Region, California – Their Geology and Engineering Properties and Their Importance to Comprehensive Planning.* Professional Paper 943, Plate 2.



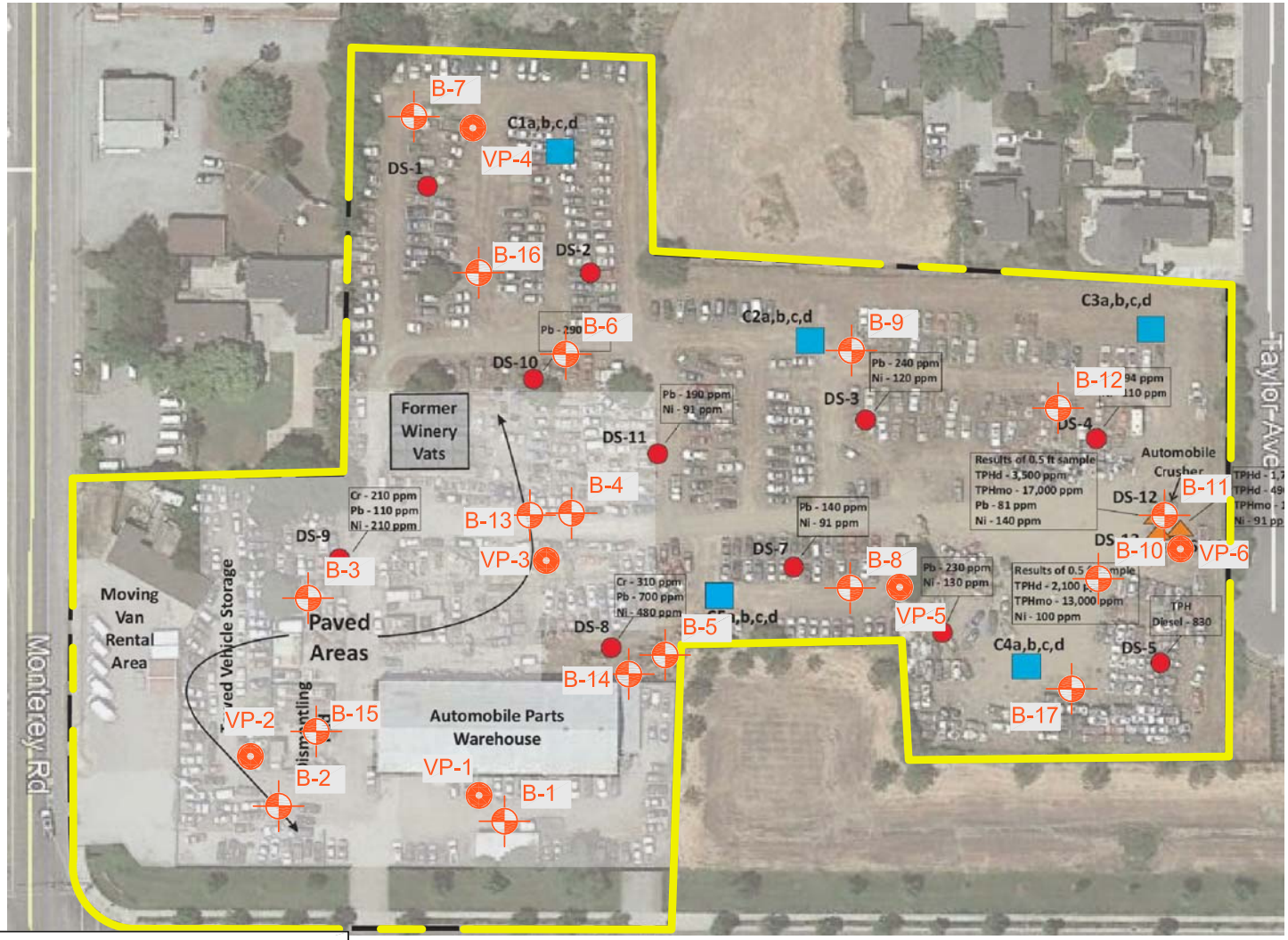
GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite H-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

VICINITY MAP

JEMCOR DEVELOPMENT PARTNERS, LLC
PHASE II - ENVIRONMENTAL SITE ASSESSMENT
18960 MONTEREY ROAD
MORGAN HILL, CALIFORNIA

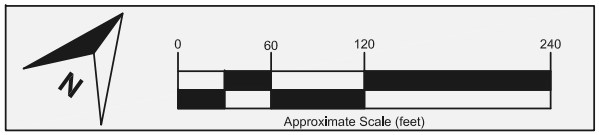
Project No.	Drawn by:
2020-06	GC
Scale:	Date:
NTS	09/2020

Figure No.
1



LEGEND

- Property Line
- B-1 Soil Boring Location
- VP-1 Temporary Vapor Probe Location



GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite H-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

SITE PLAN

JEMCOR DEVELOPMENT PARTNERS, LLC
PHASE II - ENVIRONMENTAL SITE ASSESSMENT
18960 MONTEREY ROAD
MORGAN HILL, CALIFORNIA

Project No.	Drawn by:
2020-06	GC
Scale:	Date:
AS SHOWN	09/2020

Figure No. 2

APPENDIX A

LOGS OF BORINGS

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-1
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 33 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B1-0.5 B1-1	0			Gray brown, sandy GRAVEL , dry (FILL) Brown, silty medium SAND (SM), no odor, damp	
			B1-5	5		SM		
			B1-10	10			increase clay at 10 feet	
							Dark brown, clayey GRAVEL with sand (GW), no odor, moist	
				15		GW		
							Dark brown, sandy GRAVEL with clay (GW), no odor, moist	
				20		GW		

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-1
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 33 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20			Dark brown, sandy GRAVEL with clay (GW), no odor, moist	
				25		GW		
				30		SM	Brown, fine sandy SILT (SM), no odor, very moist	
				35			Boring was terminated at 33 feet below ground surface (bgs). Groundwater was not encountered.	
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-2
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA
Depth to Water (Static): NA

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B2-0.5 B2-1	0			(FILL) Gray brown, sandy GRAVEL with brick fragments	
			B2-5	5		FILL	mottled black at 5 feet	
			B2-10	10				
				15		FILL	Black brown, clayey GRAVEL, odor, damp (FILL)	
				20		GW	increased gravel at 19 feet Brown to gray, clayey GRAVEL with sand (GW), no odor, moist	

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-2
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GW	Brown to gray, clayey GRAVEL with sand (GW), no odor, moist	
				25			Gray brown, gravelly coarse SAND (SW), no odor, wet	
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-3
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B3-0.5 B3-1	0		FILL	Gray, GRAVEL with medium sand (FILL)	
							Brown, clayey SAND (SC), no odor, damp	
						SC		
			B3-5	5				
							Gray brown, clayey GRAVEL with sand (GW), no odor, moist	
			B3-10	10		GW		
				15		FILL		
				20		GW	Dark gray brown, sandy GRAVEL with CLAY (GW), no odor, moist	

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-3
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GW	Dark gray brown, sandy GRAVEL with CLAY (GW), no odor, moist	
				25				
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-4
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B4-0.5 B4-1	0		SW	Brown, gravelly SAND with clay (SW), no odor, dry	
						SW	Brown, gravelly coarse SAND (SW), no odor, damp	
			B4-5	5				
						SW	Dark brown, coarse sandy GRAVEL (SW), no odor, moist	
			B4-10	10				
						SP-GW	Dark brown, coarse SAND with gravel (SP-GW), no odor, moist	
				15		SW	Dark brown, gravelly coarse SAND with clay (SW), no odor, moist	
						GW	Brown, clayey GRAVEL with sand (GW), no odor, moist	
				20				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-4
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GW	Brown, clayey GRAVEL with sand (GW), no odor, moist	
				25			pockets of water at 25 feet to 28 feet	
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-5
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B5-0.5 B5-1	0		SP	Brown, coarse SAND with gravel (SP), no odor, dry	
							Dark brown, sandy GRAVEL with clay (GW), no odor, damp	
			B5-5	5		GW		
							grades to more clay at 9 feet	
			B5-10	10				
				15			Gray to brown, clayey GRAVEL with sand (SW), no odor, moist	
						SW		
				20				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-5
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GW	Gray to brown, clayey GRAVEL with sand (SW), no odor, moist	
							Brown, silty CLAY (CL), no odor, moist	
				25		CL		
							Brown to gray, clayey GRAVEL sand, no odor, moist	
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-6
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA
Depth to Water (Static): NA

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B6-0.5 B6-1	0		SP	Brown, medium SAND with gravel (SP), no odor, dry	
			B6-5	5		GW	Dark brown, clayey GRAVEL with sand (GW), no odor, damp carbonized root at 9 feet	
			B6-10	10				
				15		GW	Dark brown, sandy GRAVEL with silt (GW), no odor, moist	
						GP-GC	Brown, GRAVEL with clay (GP-GC), no odor, moist	
				20				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-6
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GP-GC	Brown, GRAVEL with clay (GP-GC), no odor, moist	
							Brown, clayey SAND with gravel (SC), no odor, very moist	
						SC		
							Dark brown, coarse sandy GRAVEL with clay (GW), pockets of water, no odor, very moist	
				25		GW		
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-7
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B7-0.5 B7-1	0		SP	Brown, medium SAND with silt (SP), no odor, dry	
							Dark brown, silty GRAVEL with sand (GW), no odor, damp	
			B7-5	5		GW		
			B7-10	10			Dark brown, clayey GRAVEL with sand (GW), no odor, moist	
							Dark brown, sandy GRAVEL with silt (GW), no odor, moist	
				15		GW		
							Light brown, fine sandy SILT (ML), no odor, moist	
						ML		
				20				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-7
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		ML	Light brown, fine sandy SILT (ML), no odor, moist	
				25		GW	Dark brown, clayey GRAVEL with sand (GW), no odor, very moist	
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-8
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B8-0.5 B8-1	0		GW	Brown, fine sandy GRAVEL with clay (GW), no odor, dry	
							Dark brown, clayey GRAVEL with sand (GW), no odor, damp	
			B8-5	5		GW		
			B8-10	10			Brown, coarse sand GRAVEL (GP-GW), no odor, moist	
				15		GP-GW		
							Brown, silty CLAY (CL), no odor, moist	
				20		CL		

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-8
Drilling Started: 05-07-2020
Drilling Completed: 05-07-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		CL	Brown, silty CLAY (CL), no odor, moist	
				25		GW	Brown, sandy GRAVEL with clay (GW), no odor, moist	
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-9
Drilling Started: 05-08-2020
Drilling Completed: 05-08-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B9-0.5 B9-1	0		SW	Brown, clayey GRAVEL with sand (SW), no odor, dry	
			B9-5	5				
							Brown gray, sandy GRAVEL with clay (GW), no odor, damp	
			B9-10	10		GW		
				15				
							Olive to gray, clayey GRAVEL (GC), no odor, moist	
				20		GC		

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-9
Drilling Started: 05-08-2020
Drilling Completed: 05-08-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GC	Olive to gray, clayey GRAVEL (GC), no odor, moist	
				25			increasing sand at 26 feet	
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-10
Drilling Started: 05-08-2020
Drilling Completed: 05-08-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B10-0.5 B10-1	0		SW	Brown, gravelly SAND with clay (SW), no odor, moist	
							Brown sandy GRAVEL with clay (GW), no odor, damp	
			B10-5	5				
			B10-10	10			Brown gray, sandy GRAVEL with clay (GW), no odor, damp	
				15		GW		
							Brown, clayey GRAVEL with sand (GW), no odor, moist	
				20		GW		

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-10
Drilling Started: 05-08-2020
Drilling Completed: 05-08-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GW	Brown, clayey GRAVEL with sand (GW), no odor, moist	
				25				
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-11
Drilling Started: 05-08-2020
Drilling Completed: 05-08-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA
Depth to Water (Static): NA

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B11-0.5 B11-1	0		SP	Brown, fine SAND with silt (SP), no odor, damp	
							Gray, sandy SILT (ML), no odor, damp	
			B11-5	5		ML		
							Gray brown, clayey GRAVEL with coarse sand (GW), no odor, moist	
			B11-10	10		GW		
				15				
							Brown, coarse sandy GRAVEL with clay (GW), no odor, moist	
				20		GW		

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-11
Drilling Started: 05-08-2020
Drilling Completed: 05-08-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GW	Brown, coarse sandy GRAVEL with clay (GW), no odor, moist	
				25		GC	Gray brown, clayey GRAVEL (GC), no odor, moist more moisture at 28 feet	
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-12
Drilling Started: 05-08-2020
Drilling Completed: 05-08-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
			B12-0.5 B12-1	0		SP	Brown, medium SAND (SP) with clay, no odor, dry	
							Dark brown, clayey GRAVEL with sand (GW), no odor, damp	
			B12-5	5		GW		
			B12-10	10				
							Brown gray, fine sandy GRAVEL (GW), no odor, moist	
				15		GW		
				20				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Penecore
Drilling Method: Direct Push
Boring Diameter: 2.5-inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-11
Drilling Started: 05-08-2020
Drilling Completed: 05-08-2020
Ground Surface Elevation:
Boring Location: -
Total Boring depth: 30 feet
Depth to Water (First Encounter): NA ▽
Depth to Water (Static): NA ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GW	Brown, coarse sandy GRAVEL with clay (GW), no odor, moist	
							Brown, silty CLAY (CL), no odor, moist	
				25				
				30			Boring was terminated at 30 feet below ground surface (bgs). Groundwater was not encountered.	
				35				
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-13
Drilling Started: 09-17-2020
Drilling Completed: 09-17-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 44 feet
Depth to Water (First Encounter): 42 feet ▽
Depth to Water (Static): 40 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				0		ML	Brown, fine sandy SILT (ML), no odor, dry	
				5		SP	Light brown, fine SAND (SP), no odor, dry	
				10		CL	Brown, silty CLAY with fine sand (CL), no odor, damp	
				15		GW	Brown, clayey GRAVEL with sand (GW), no odor, damp grades less clay at 18 feet	
				20		GW	Brown, fine to coarse sandy GRAVEL with clay (GW), no odor, moist	

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-13
Drilling Started: 09-17-2020
Drilling Completed: 09-17-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 44 feet
Depth to Water (First Encounter): 42 feet ▽
Depth to Water (Static): 40 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GW	Brown, fine to coarse sandy GRAVEL with clay (GW), no odor, moist	
				25				
				30				
				35		CL	Brown, silty CLAY (CL), no odor, moist	
						GW	Brown, coarse sandy GRAVEL with clay (GW), no odor, moist	
				40	▼			

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-13
Drilling Started: 09-17-2020
Drilling Completed: 09-17-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 44 feet
Depth to Water (First Encounter): 42 feet ▽
Depth to Water (Static): 40 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				40	▽	SM	Light brown, silty SAND (SM), no odor,wet	
				45			Boring was terminated at 44 feet below ground surface (bgs). Groundwater was encountered at 42 feet and stabilized at 40 feet after 20 minutes.	
				50				
				55				
				60				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-14
Drilling Started: 09-17-2020
Drilling Completed: 09-17-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 42 feet
Depth to Water (First Encounter): 39 feet ▽
Depth to Water (Static): 36 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				0		ML	Brown, fine sandy SILT (ML), no odor, dry	
						SP	Light brown, fine SAND (SP) with silt, no odor, dry	
				5		CL	Brown, silty CLAY (CL), no odor, damp	
				10		GW	Brown, clayey GRAVEL with sand (GW), no odor, damp	
				15			grades less clay at 17 feet	
						GW	Brown, fine to coarse sandy GRAVEL with clay (GW), no odor, moist	
				20				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-14
Drilling Started: 09-17-2020
Drilling Completed: 09-17-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 42 feet
Depth to Water (First Encounter): 39 feet ▽
Depth to Water (Static): 36 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20			Brown, fine to coarse sandy GRAVEL with clay (GW), no odor, moist	
				25		GW		
				30				
							Brown, silty CLAY (CL), no odor, moist	
				35	▼	CL		
							Brown, coarse sandy GRAVEL (GW-GP), no odor, very moist	
					▽	GW		
				40		SM	Light brown, silty SAND (SM), no odor, wet	

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-14
Drilling Started: 09-17-2020
Drilling Completed: 09-17-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 42 feet
Depth to Water (First Encounter): 39 feet ▽
Depth to Water (Static): 36 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				40		SM	Light brown, silty SAND (SM), no odor,wet	
				45			Boring was terminated at 42 feet below ground surface (bgs). Groundwater was encountered at 39 feet and stabilized at 36 feet after 20 minutes.	
				50				
				55				
				60				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-15
Drilling Started: 09-28-2020
Drilling Completed: 09-28-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 44 feet
Depth to Water (First Encounter): 42 feet ▽
Depth to Water (Static): 40 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				0		ML	Brown, fine sandy SILT (ML), no odor, dry	
				5		CL	Brown, silty CLAY (CL), no odor, damp	
				10		GW	Brown, clayey GRAVEL with sand (GW), no odor, damp	
				15			grades less clay at 16 feet	
						GW	Brown, fine to coarse sandy GRAVEL with clay (GW), no odor, moist	
				20				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-15
Drilling Started: 09-28-2020
Drilling Completed: 09-28-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 44 feet
Depth to Water (First Encounter): 42 feet ▽
Depth to Water (Static): 40 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20			Brown, fine to coarse sandy GRAVEL with clay (GW), no odor, moist	
				25		GW		
				30			Brown, silty CLAY (CL), no odor, moist	
						CL		
				35			Light brown, silty SAND (SM), no odor, wet	
						SM		
				40	▼			

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-15
Drilling Started: 09-28-2020
Drilling Completed: 09-28-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 44 feet
Depth to Water (First Encounter): 42 feet ▽
Depth to Water (Static): 40 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				40	▽	SM	Light brown, silty SAND (SM), no odor,wet	
				45			Boring was terminated at 44 feet below ground surface (bgs). Groundwater was encountered at 42 feet and stabilized at 40 feet after 20 minutes.	
				50				
				55				
				60				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-16
Drilling Started: 09-28-2020
Drilling Completed: 09-28-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 44 feet
Depth to Water (First Encounter): 41 feet ▽
Depth to Water (Static): 39 feet ▼

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				0		SP	Light brown, fine SAND (SP) with silt, no odor, dry	
				5			Brown, silty CLAY (CL), no odor, damp	
				10				
				15		GW	Brown, clayey GRAVEL with sand (GW), no odor, damp	
				20				

Sample Condition
Undisturbed Sample
No Recovery
Disturbed Sample

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-16
Drilling Started: 09-28-2020
Drilling Completed: 09-28-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 44 feet
Depth to Water (First Encounter): 41 feet ▽
Depth to Water (Static): 39 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GW	Brown, clayey GRAVEL with sand (GW), no odor, damp	
				25				
							Brown, silty CLAY (CL), no odor, moist	
				30		CL		
				35				
					▼			
				40		SM	Light brown, silty SAND (SM), no odor, wet	

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-16
Drilling Started: 09-28-2020
Drilling Completed: 09-28-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 44 feet
Depth to Water (First Encounter): 41 feet ▽
Depth to Water (Static): 39 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				40	▽	SM	Light brown, silty SAND (SM), no odor,wet	
				45			Boring was terminated at 44 feet below ground surface (bgs). Groundwater was encountered at 41 feet and stabilized at 39 feet after 20 minutes.	
				50				
				55				
				60				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-17
Drilling Started: 09-17-2020
Drilling Completed: 09-17-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 44 feet
Depth to Water (First Encounter): 43 feet ▽
Depth to Water (Static): 41 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				0		SP	Light brown, fine SAND (SP), no odor, dry	
				5		CL	Brown, silty CLAY with fine sand (CL), no odor, damp	
				10		GW	Brown, clayey GRAVEL with sand (GW), no odor, damp	
				15		GW	Brown, fine to coarse sandy GRAVEL with clay (GW), no odor, moist grades less clay at 18 feet	
				20				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-17
Drilling Started: 09-17-2020
Drilling Completed: 09-17-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 44 feet
Depth to Water (First Encounter): 43 feet ▽
Depth to Water (Static): 41 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				20		GW	Brown, fine to coarse sandy GRAVEL with clay (GW), no odor, moist	
				25				
				30				
				35		CL		
						GW	Brown, coarse sandy GRAVEL with clay (GW), no odor, moist	
				40				

GeoSolve, Inc.
Geoscience solutions rather than Status-Quo
Address: 1807 Santa Rita Rd, Suite D-165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

BORING LOG

Client Name: JEMCOR-Morgan Hill
Job/Site Name: Parts and Tow
Location: 18960 Monterey
Project Number: 2020-06
Driller: Exploration GeoServices
Drilling Method: Hollow Stem
Boring Diameter: 6 inches
Logged by: RDC
Review by: RDC
Notes:

Boring Name: B-17
Drilling Started: 09-17-2020
Drilling Completed: 09-17-2020
Ground Surface Elevation:
Boring Location:
Total Boring depth: 44 feet
Depth to Water (First Encounter): 43 feet ▽
Depth to Water (Static): 41 feet ▼

Sample Condition: Undisturbed Sample; No Recovery; Disturbed Sample

Date Sampled	Well Detail	PID (ppm)	Sample ID	Depth (ft bgs)	Graphic Log	U.S.C.S.	Lithologic Description	Contact Depth (ft bgs)
				40	▼ ▽	SM	Light brown, silty SAND (SM), no odor,wet	
				45			Boring was terminated at 44 feet below ground surface (bgs). Groundwater was encountered at 43 feet and stabilized at 41 feet after 20 minutes.	
				50				
				55				
				60				

APPENDIX B

McCAMPELL ANALYTICAL AND PACE ANALYTICAL LABORATORY ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY DOCUMENTATION

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

May 20, 2020

Geosolve, Inc - Grass Valley, CA

Sample Delivery Group:	L1217589
Samples Received:	05/12/2020
Project Number:	2020-06
Description:	Parts and Tow
Site:	2020-06
Report To:	Rob Cambell 111 Bank Street Suite 392 Grass Valley, CA 95945

Entire Report Reviewed By:

Jared Starkey
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



TABLE OF CONTENTS

Cp: Cover Page 1
Tc: Table of Contents 2
Ss: Sample Summary 4
Cn: Case Narrative 13
Sr: Sample Results 14
B1-0.5 L1217589-01 14
B1-1 L1217589-02 17
B1-1D L1217589-03 19
B1-5 L1217589-04 20
B1-10 L1217589-05 22
B2-0.5 L1217589-06 24
B2-1 L1217589-07 27
B2-5 L1217589-08 29
B2-10 L1217589-09 31
B3-0.5 L1217589-10 33
B3-1 L1217589-11 36
B3-5 L1217589-12 38
B3-10 L1217589-13 40
B4-0.5 L1217589-14 42
B4-1 L1217589-15 45
B4-1D L1217589-16 47
B4-5 L1217589-17 48
B4-10 L1217589-18 50
B5-0.5 L1217589-19 52
B5-1 L1217589-20 55
B5-5 L1217589-21 57
B5-10 L1217589-22 59
B6-0.5 L1217589-23 61
B6-1 L1217589-24 64
B6-5 L1217589-25 66
B6-10 L1217589-26 68
B7-0.5 L1217589-27 70
B7-1 L1217589-28 73
B7-5 L1217589-29 75
B7-10 L1217589-30 77
B2-15 L1217589-31 79
B8-0.5 L1217589-32 81
B8-1 L1217589-33 84
B8-5 L1217589-34 86
B8-10 L1217589-35 88

B9-0.5 L1217589-36 90
B9-1 L1217589-37 93
B9-5 L1217589-38 95
B9-10 L1217589-39 97
B10-0.5 L1217589-40 99
B10-1 L1217589-41 102
B10-5 L1217589-42 104
B10-10 L1217589-43 106
B11-0.5 L1217589-44 108
B11-1 L1217589-45 111
B11-5 L1217589-46 113
B11-10 L1217589-47 115
B12-0.5 L1217589-48 117
B12-1 L1217589-49 120
B12-5 L1217589-50 122
B12-10 L1217589-51 124
B12-0.5D L1217589-52 126
Qc: Quality Control Summary 127
Total Solids by Method 2540 G-2011 127
Mercury by Method 7471A 133
Metals (ICP) by Method 6010B 135
Volatile Organic Compounds (GC/MS) by Method 8260B 139
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT 156
Polychlorinated Biphenyls (GC) by Method 8082 159
Gl: Glossary of Terms 160
Al: Accreditations & Locations 161
Sc: Sample Chain of Custody 162

B1-0.5 L1217589-01 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478876	1	05/19/20 21:31	05/19/20 21:38	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477233	1	05/16/20 11:46	05/18/20 09:03	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 18:22	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 11:49	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	200	05/18/20 07:30	05/19/20 12:09	KME	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	50	05/18/20 07:30	05/19/20 15:44	FM	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1477089	1	05/17/20 15:45	05/18/20 12:11	MTJ	Mt. Juliet, TN

B1-1 L1217589-02 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478876	1	05/19/20 21:31	05/19/20 21:38	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477233	1	05/16/20 11:46	05/18/20 09:06	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 18:25	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 12:09	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	1	05/18/20 07:30	05/19/20 07:36	KME	Mt. Juliet, TN

B1-1D L1217589-03 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478876	1	05/19/20 21:31	05/19/20 21:38	KBC	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	1	05/18/20 07:30	05/19/20 07:51	KME	Mt. Juliet, TN

B1-5 L1217589-04 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478876	1	05/19/20 21:31	05/19/20 21:38	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 12:30	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	1	05/18/20 07:30	05/19/20 18:49	FM	Mt. Juliet, TN

B1-10 L1217589-05 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478877	1	05/19/20 21:40	05/19/20 21:45	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 12:50	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	1	05/18/20 07:30	05/19/20 08:05	KME	Mt. Juliet, TN

B2-0.5 L1217589-06 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478877	1	05/19/20 21:40	05/19/20 21:45	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477233	1	05/16/20 11:46	05/18/20 09:08	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 18:27	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 13:11	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	100	05/18/20 07:30	05/19/20 11:54	KME	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1477089	1	05/17/20 15:45	05/18/20 12:25	MTJ	Mt. Juliet, TN

B2-1 L1217589-07 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478877	1	05/19/20 21:40	05/19/20 21:45	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477233	1	05/16/20 11:46	05/18/20 09:11	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 18:35	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 13:31	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	1	05/18/20 07:30	05/19/20 15:15	FM	Mt. Juliet, TN

B2-5 L1217589-08 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478877	1	05/19/20 21:40	05/19/20 21:45	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 13:51	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	1	05/18/20 07:30	05/19/20 08:20	KME	Mt. Juliet, TN

B2-10 L1217589-09 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478877	1	05/19/20 21:40	05/19/20 21:45	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 14:11	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	1	05/18/20 07:30	05/19/20 08:35	KME	Mt. Juliet, TN

B3-0.5 L1217589-10 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478877	1	05/19/20 21:40	05/19/20 21:45	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477233	1	05/16/20 11:46	05/18/20 09:14	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 18:38	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1.4	05/07/20 00:00	05/16/20 14:31	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	1	05/18/20 07:30	05/19/20 08:49	KME	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1477089	1	05/17/20 15:45	05/18/20 12:39	MTJ	Mt. Juliet, TN

B3-1 L1217589-11 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478877	1	05/19/20 21:40	05/19/20 21:45	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477233	1	05/16/20 11:46	05/18/20 09:16	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 18:41	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 14:52	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	1	05/18/20 07:30	05/19/20 09:04	KME	Mt. Juliet, TN

B3-5 L1217589-12 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478877	1	05/19/20 21:40	05/19/20 21:45	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 15:12	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	1	05/18/20 07:30	05/19/20 09:19	KME	Mt. Juliet, TN

B3-10 L1217589-13 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478877	1	05/19/20 21:40	05/19/20 21:45	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 15:32	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	1	05/18/20 07:30	05/19/20 09:33	KME	Mt. Juliet, TN

B4-0.5 L1217589-14 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478877	1	05/19/20 21:40	05/19/20 21:45	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477233	1	05/16/20 11:46	05/18/20 09:19	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 18:08	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 15:53	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	1	05/18/20 07:30	05/19/20 09:48	KME	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1477089	1	05/17/20 15:45	05/18/20 12:54	MTJ	Mt. Juliet, TN

B4-1 L1217589-15 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478933	1	05/19/20 21:47	05/19/20 21:53	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477233	1	05/16/20 11:46	05/18/20 09:21	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 18:44	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 16:13	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	1	05/18/20 07:30	05/19/20 10:03	KME	Mt. Juliet, TN

B4-1D L1217589-16 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478933	1	05/19/20 21:47	05/19/20 21:53	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477233	1	05/16/20 11:46	05/18/20 09:24	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 18:47	CCE	Mt. Juliet, TN

B4-5 L1217589-17 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478933	1	05/19/20 21:47	05/19/20 21:53	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 16:33	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	1	05/18/20 07:30	05/19/20 10:17	KME	Mt. Juliet, TN

B4-10 L1217589-18 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478933	1	05/19/20 21:47	05/19/20 21:53	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 16:53	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	1	05/18/20 07:30	05/19/20 10:32	KME	Mt. Juliet, TN

B5-0.5 L1217589-19 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478933	1	05/19/20 21:47	05/19/20 21:53	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477007	1	05/16/20 12:01	05/18/20 10:12	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 18:49	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 17:14	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477619	100	05/18/20 07:27	05/18/20 14:49	KME	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1477089	1	05/17/20 15:45	05/18/20 13:08	MTJ	Mt. Juliet, TN

B5-1 L1217589-20 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478933	1	05/19/20 21:47	05/19/20 21:53	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477007	1	05/16/20 12:01	05/18/20 10:15	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 18:52	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 17:34	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	1	05/18/20 07:30	05/19/20 10:47	KME	Mt. Juliet, TN

B5-5 L1217589-21 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478933	1	05/19/20 21:47	05/19/20 21:53	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 17:54	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	1	05/18/20 07:30	05/19/20 11:06	KME	Mt. Juliet, TN

B5-10 L1217589-22 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478933	1	05/19/20 21:47	05/19/20 21:53	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477213	1	05/07/20 00:00	05/16/20 18:14	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	1	05/18/20 07:28	05/18/20 20:28	KME	Mt. Juliet, TN

B6-0.5 L1217589-23 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478933	1	05/19/20 21:47	05/19/20 21:53	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477007	1	05/16/20 12:01	05/18/20 10:17	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 18:55	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477251	1	05/07/20 00:00	05/16/20 13:37	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	1	05/18/20 07:28	05/19/20 14:02	FM	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1477089	1	05/17/20 15:45	05/18/20 13:22	MTJ	Mt. Juliet, TN

B6-1 L1217589-24 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478933	1	05/19/20 21:47	05/19/20 21:53	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477007	1	05/16/20 12:01	05/18/20 10:20	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 18:58	CCE	Mt. Juliet, TN

B6-1 L1217589-24 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477251	1	05/07/20 00:00	05/16/20 13:58	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	1	05/18/20 07:28	05/18/20 20:42	KME	Mt. Juliet, TN

B6-5 L1217589-25 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478937	1	05/19/20 21:54	05/19/20 21:54	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477251	1	05/07/20 00:00	05/16/20 14:18	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	1	05/18/20 07:28	05/18/20 20:57	KME	Mt. Juliet, TN

B6-10 L1217589-26 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478937	1	05/19/20 21:54	05/19/20 21:54	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477251	1	05/07/20 00:00	05/16/20 14:38	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	1	05/18/20 07:28	05/18/20 21:13	KME	Mt. Juliet, TN

B7-0.5 L1217589-27 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478937	1	05/19/20 21:54	05/19/20 21:54	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477007	1	05/16/20 12:01	05/18/20 10:22	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 19:01	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477251	1	05/07/20 00:00	05/16/20 14:58	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	1	05/18/20 07:28	05/18/20 21:27	KME	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1477089	1	05/17/20 15:45	05/18/20 13:50	MTJ	Mt. Juliet, TN

B7-1 L1217589-28 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478937	1	05/19/20 21:54	05/19/20 21:54	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477007	1	05/16/20 12:01	05/18/20 10:25	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 19:09	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477251	1	05/07/20 00:00	05/16/20 15:19	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	1	05/18/20 07:28	05/18/20 21:42	KME	Mt. Juliet, TN

B7-5 L1217589-29 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478937	1	05/19/20 21:54	05/19/20 21:54	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477251	1	05/07/20 00:00	05/16/20 15:39	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	1	05/18/20 07:28	05/18/20 21:57	KME	Mt. Juliet, TN

B7-10 L1217589-30 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478937	1	05/19/20 21:54	05/19/20 21:54	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477251	1	05/07/20 00:00	05/16/20 15:59	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	1	05/18/20 07:28	05/18/20 22:11	KME	Mt. Juliet, TN

B2-15 L1217589-31 Solid

Collected by: Rob Campbell | Collected date/time: 05/07/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478937	1	05/19/20 21:54	05/19/20 21:54	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477251	1	05/16/20 08:37	05/16/20 16:19	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	1	05/18/20 07:28	05/18/20 22:26	KME	Mt. Juliet, TN

B8-0.5 L1217589-32 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478937	1	05/19/20 21:54	05/19/20 21:54	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477007	1	05/16/20 12:01	05/18/20 09:54	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 19:11	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477251	1	05/16/20 08:37	05/16/20 16:40	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	1	05/18/20 07:28	05/18/20 22:41	KME	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1477089	1	05/17/20 15:45	05/18/20 14:04	MTJ	Mt. Juliet, TN

B8-1 L1217589-33 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478937	1	05/19/20 21:54	05/19/20 21:54	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477007	1	05/16/20 12:01	05/18/20 10:46	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 19:14	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477251	1	05/16/20 08:37	05/16/20 17:00	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	1	05/18/20 07:28	05/18/20 22:56	KME	Mt. Juliet, TN

B8-5 L1217589-34 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478937	1	05/19/20 21:54	05/19/20 21:54	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477251	1	05/16/20 08:37	05/16/20 17:20	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	1	05/18/20 07:28	05/18/20 23:10	KME	Mt. Juliet, TN

B8-10 L1217589-35 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478938	1	05/19/20 22:04	05/19/20 22:11	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477251	1	05/16/20 08:37	05/16/20 17:41	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	1	05/18/20 07:28	05/18/20 23:25	KME	Mt. Juliet, TN

B9-0.5 L1217589-36 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478938	1	05/19/20 22:04	05/19/20 22:11	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477007	1	05/16/20 12:01	05/18/20 10:49	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 19:17	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477251	1	05/08/20 00:00	05/16/20 18:01	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	1	05/18/20 07:28	05/19/20 14:17	FM	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1477089	1	05/17/20 15:45	05/18/20 14:19	MTJ	Mt. Juliet, TN

B9-1 L1217589-37 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478938	1	05/19/20 22:04	05/19/20 22:11	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477007	1	05/16/20 12:01	05/18/20 10:51	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477074	1	05/16/20 07:30	05/16/20 19:36	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477251	1	05/08/20 00:00	05/16/20 18:21	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	1	05/18/20 07:28	05/19/20 13:48	FM	Mt. Juliet, TN

B9-5 L1217589-38 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478938	1	05/19/20 22:04	05/19/20 22:11	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477251	1	05/08/20 00:00	05/16/20 18:41	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	1	05/18/20 07:28	05/18/20 23:39	KME	Mt. Juliet, TN

B9-10 L1217589-39 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478938	1	05/19/20 22:04	05/19/20 22:11	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477251	1	05/08/20 00:00	05/16/20 19:02	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	1	05/18/20 07:28	05/18/20 23:54	KME	Mt. Juliet, TN

B10-0.5 L1217589-40 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478938	1	05/19/20 22:04	05/19/20 22:11	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477007	1	05/16/20 12:01	05/18/20 10:54	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 19:20	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477251	1	05/16/20 08:37	05/16/20 19:22	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	200	05/18/20 07:28	05/19/20 02:47	KME	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1477089	1	05/17/20 15:45	05/18/20 14:33	MTJ	Mt. Juliet, TN

B10-1 L1217589-41 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478938	1	05/19/20 22:04	05/19/20 22:11	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477007	1	05/16/20 12:01	05/18/20 10:57	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477073	1	05/16/20 07:33	05/16/20 19:22	CCE	Mt. Juliet, TN

B10-1 L1217589-41 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478602	1	05/16/20 08:37	05/19/20 14:34	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477297	2	05/18/20 07:28	05/19/20 19:18	FM	Mt. Juliet, TN

B10-5 L1217589-42 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478938	1	05/19/20 22:04	05/19/20 22:11	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477261	1	05/16/20 08:37	05/16/20 16:30	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478189	1	05/16/20 08:37	05/19/20 03:41	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477296	1	05/18/20 07:30	05/19/20 15:00	FM	Mt. Juliet, TN

B10-10 L1217589-43 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478938	1	05/19/20 22:04	05/19/20 22:11	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477261	1	05/16/20 08:37	05/16/20 16:49	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478189	1	05/16/20 08:37	05/19/20 04:00	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477619	1	05/18/20 07:27	05/18/20 13:06	KME	Mt. Juliet, TN

B11-0.5 L1217589-44 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478938	1	05/19/20 22:04	05/19/20 22:11	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477007	1	05/16/20 12:01	05/18/20 10:59	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477074	1	05/16/20 07:30	05/16/20 19:49	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477261	1	05/08/20 00:00	05/16/20 17:08	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478189	1	05/08/20 00:00	05/19/20 04:19	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477619	5	05/18/20 07:27	05/18/20 16:17	KME	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1477089	1	05/17/20 15:45	05/18/20 14:47	MTJ	Mt. Juliet, TN

B11-1 L1217589-45 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478939	1	05/19/20 22:13	05/19/20 22:18	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477007	1	05/16/20 12:01	05/18/20 11:02	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477074	1	05/16/20 07:30	05/16/20 19:52	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477261	1	05/08/20 00:00	05/16/20 17:27	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477619	1	05/18/20 07:27	05/18/20 12:21	KME	Mt. Juliet, TN

B11-5 L1217589-46 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478939	1	05/19/20 22:13	05/19/20 22:18	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477261	1	05/08/20 00:00	05/16/20 17:46	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477619	1	05/18/20 07:27	05/18/20 12:36	KME	Mt. Juliet, TN

B11-10 L1217589-47 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478939	1	05/19/20 22:13	05/19/20 22:18	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477261	1	05/08/20 00:00	05/16/20 18:05	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477619	1	05/18/20 07:27	05/18/20 12:51	KME	Mt. Juliet, TN

B12-0.5 L1217589-48 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478939	1	05/19/20 22:13	05/19/20 22:18	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477007	1	05/16/20 12:01	05/18/20 11:04	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477074	1	05/16/20 07:30	05/16/20 19:55	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477261	1	05/16/20 08:37	05/16/20 18:24	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477619	20	05/18/20 07:27	05/18/20 14:34	KME	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1477089	1	05/17/20 15:45	05/18/20 15:01	MTJ	Mt. Juliet, TN

B12-1 L1217589-49 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478939	1	05/19/20 22:13	05/19/20 22:18	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1477007	1	05/16/20 12:01	05/18/20 11:07	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477074	1	05/16/20 07:30	05/16/20 20:02	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477261	1	05/16/20 08:37	05/16/20 18:43	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477619	1	05/18/20 07:27	05/18/20 13:36	KME	Mt. Juliet, TN

B12-5 L1217589-50 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478939	1	05/19/20 22:13	05/19/20 22:18	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477261	1	05/16/20 08:37	05/16/20 19:02	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477619	1	05/18/20 07:27	05/18/20 13:51	KME	Mt. Juliet, TN

B12-10 L1217589-51 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478939	1	05/19/20 22:13	05/19/20 22:18	KBC	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1477261	1	05/16/20 08:37	05/16/20 19:21	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1477619	1	05/18/20 07:27	05/18/20 13:21	KME	Mt. Juliet, TN

B12-0.5D L1217589-52 Solid

Collected by: Rob Campbell | Collected date/time: 05/08/20 00:00 | Received date/time: 05/12/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1478939	1	05/19/20 22:13	05/19/20 22:18	KBC	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1477089	1	05/17/20 15:45	05/18/20 15:15	MTJ	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Jared Starkey
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.8		1	05/19/2020 21:38	WG1478876

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0476		0.0184	0.0409	1	05/18/2020 09:03	WG1477233

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	2.17		0.511	2.05	1	05/16/2020 18:22	WG1477073
Arsenic	2.88		0.471	2.05	1	05/16/2020 18:22	WG1477073
Barium	308		0.246	0.511	1	05/16/2020 18:22	WG1477073
Beryllium	0.280		0.0818	0.205	1	05/16/2020 18:22	WG1477073
Cadmium	0.781		0.0829	0.511	1	05/16/2020 18:22	WG1477073
Chromium	43.5		0.256	1.02	1	05/16/2020 18:22	WG1477073
Cobalt	12.5		0.235	1.02	1	05/16/2020 18:22	WG1477073
Copper	40.6		0.518	2.05	1	05/16/2020 18:22	WG1477073
Lead	38.8		0.213	0.511	1	05/16/2020 18:22	WG1477073
Molybdenum	0.471	J	0.205	0.511	1	05/16/2020 18:22	WG1477073
Nickel	91.2		0.501	2.05	1	05/16/2020 18:22	WG1477073
Selenium	0.718	J	0.631	2.05	1	05/16/2020 18:22	WG1477073
Silver	U		0.233	1.02	1	05/16/2020 18:22	WG1477073
Thallium	U		0.362	2.05	1	05/16/2020 18:22	WG1477073
Vanadium	58.4		0.703	2.05	1	05/16/2020 18:22	WG1477073
Zinc	75.0		0.961	5.11	1	05/16/2020 18:22	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0373	0.0511	1	05/16/2020 11:49	WG1477213
Acrylonitrile	U		0.00369	0.0128	1	05/16/2020 11:49	WG1477213
Benzene	U		0.000478	0.00102	1	05/16/2020 11:49	WG1477213
Bromobenzene	U		0.000921	0.0128	1	05/16/2020 11:49	WG1477213
Bromodichloromethane	U		0.000742	0.00256	1	05/16/2020 11:49	WG1477213
Bromoform	U		0.00120	0.0256	1	05/16/2020 11:49	WG1477213
Bromomethane	U		0.00202	0.0128	1	05/16/2020 11:49	WG1477213
n-Butylbenzene	U		0.00537	0.0128	1	05/16/2020 11:49	WG1477213
sec-Butylbenzene	U		0.00295	0.0128	1	05/16/2020 11:49	WG1477213
tert-Butylbenzene	U		0.00199	0.00511	1	05/16/2020 11:49	WG1477213
Carbon tetrachloride	U		0.000919	0.00511	1	05/16/2020 11:49	WG1477213
Chlorobenzene	U		0.000215	0.00256	1	05/16/2020 11:49	WG1477213
Chlorodibromomethane	U		0.000626	0.00256	1	05/16/2020 11:49	WG1477213
Chloroethane	U		0.00174	0.00511	1	05/16/2020 11:49	WG1477213
Chloroform	U		0.00105	0.00256	1	05/16/2020 11:49	WG1477213
Chloromethane	U		0.00445	0.0128	1	05/16/2020 11:49	WG1477213
2-Chlorotoluene	U		0.000885	0.00256	1	05/16/2020 11:49	WG1477213
4-Chlorotoluene	U		0.000460	0.00511	1	05/16/2020 11:49	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00399	0.0256	1	05/16/2020 11:49	WG1477213
1,2-Dibromoethane	U		0.000663	0.00256	1	05/16/2020 11:49	WG1477213
Dibromomethane	U		0.000767	0.00511	1	05/16/2020 11:49	WG1477213
1,2-Dichlorobenzene	U		0.000435	0.00511	1	05/16/2020 11:49	WG1477213
1,3-Dichlorobenzene	U		0.000614	0.00511	1	05/16/2020 11:49	WG1477213
1,4-Dichlorobenzene	U		0.000716	0.00511	1	05/16/2020 11:49	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00165	0.00256	1	05/16/2020 11:49	WG1477213
1,1-Dichloroethane	U		0.000502	0.00256	1	05/16/2020 11:49	WG1477213
1,2-Dichloroethane	U		0.000664	0.00256	1	05/16/2020 11:49	WG1477213
1,1-Dichloroethene	U		0.000620	0.00256	1	05/16/2020 11:49	WG1477213
cis-1,2-Dichloroethene	U		0.000751	0.00256	1	05/16/2020 11:49	WG1477213
trans-1,2-Dichloroethene	U		0.00106	0.00511	1	05/16/2020 11:49	WG1477213
1,2-Dichloropropane	U		0.00145	0.00511	1	05/16/2020 11:49	WG1477213
1,1-Dichloropropene	U		0.000828	0.00256	1	05/16/2020 11:49	WG1477213
1,3-Dichloropropane	U		0.000513	0.00511	1	05/16/2020 11:49	WG1477213
cis-1,3-Dichloropropene	U		0.000774	0.00256	1	05/16/2020 11:49	WG1477213
trans-1,3-Dichloropropene	U		0.00117	0.00511	1	05/16/2020 11:49	WG1477213
2,2-Dichloropropane	U		0.00141	0.00256	1	05/16/2020 11:49	WG1477213
Di-isopropyl ether	U		0.000419	0.00102	1	05/16/2020 11:49	WG1477213
Ethylbenzene	U		0.000754	0.00256	1	05/16/2020 11:49	WG1477213
Hexachloro-1,3-butadiene	U		0.00614	0.0256	1	05/16/2020 11:49	WG1477213
Isopropylbenzene	U		0.000435	0.00256	1	05/16/2020 11:49	WG1477213
p-Isopropyltoluene	U		0.00261	0.00511	1	05/16/2020 11:49	WG1477213
2-Butanone (MEK)	U		0.0650	0.102	1	05/16/2020 11:49	WG1477213
Methylene Chloride	U		0.00679	0.0256	1	05/16/2020 11:49	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00233	0.0256	1	05/16/2020 11:49	WG1477213
Methyl tert-butyl ether	U		0.000358	0.00102	1	05/16/2020 11:49	WG1477213
Naphthalene	U		0.00499	0.0128	1	05/16/2020 11:49	WG1477213
n-Propylbenzene	U		0.000972	0.00511	1	05/16/2020 11:49	WG1477213
Styrene	U		0.000234	0.0128	1	05/16/2020 11:49	WG1477213
1,1,1,2-Tetrachloroethane	U		0.000970	0.00256	1	05/16/2020 11:49	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000711	0.00256	1	05/16/2020 11:49	WG1477213
1,1,2-Trichlorotrifluoroethane	U		0.000771	0.00256	1	05/16/2020 11:49	WG1477213
Tetrachloroethene	U		0.000917	0.00256	1	05/16/2020 11:49	WG1477213
Toluene	U		0.00133	0.00511	1	05/16/2020 11:49	WG1477213
1,2,3-Trichlorobenzene	U		0.00750	0.0128	1	05/16/2020 11:49	WG1477213
1,2,4-Trichlorobenzene	U		0.00450	0.0128	1	05/16/2020 11:49	WG1477213
1,1,1-Trichloroethane	U		0.000944	0.00256	1	05/16/2020 11:49	WG1477213
1,1,2-Trichloroethane	U		0.000611	0.00256	1	05/16/2020 11:49	WG1477213
Trichloroethene	U		0.000597	0.00102	1	05/16/2020 11:49	WG1477213
Trichlorofluoromethane	U		0.000846	0.00256	1	05/16/2020 11:49	WG1477213
1,2,3-Trichloropropane	U		0.00166	0.0128	1	05/16/2020 11:49	WG1477213
1,2,4-Trimethylbenzene	U		0.00162	0.00511	1	05/16/2020 11:49	WG1477213
1,2,3-Trimethylbenzene	U		0.00162	0.00511	1	05/16/2020 11:49	WG1477213
1,3,5-Trimethylbenzene	U		0.00205	0.00511	1	05/16/2020 11:49	WG1477213
Vinyl chloride	U		0.00119	0.00256	1	05/16/2020 11:49	WG1477213
Xylenes, Total	U		0.000900	0.00665	1	05/16/2020 11:49	WG1477213
(S) Toluene-d8	*104*			*75.0-131*		*05/16/2020 11:49*	WG1477213
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*05/16/2020 11:49*	WG1477213
(S) 1,2-Dichloroethane-d4	*97.1*			*70.0-130*		*05/16/2020 11:49*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	709		37.5	205	50	05/19/2020 15:44	WG1477296
C22-C32 Hydrocarbons	1640		272	818	200	05/19/2020 12:09	WG1477296
C32-C40 Hydrocarbons	855		272	818	200	05/19/2020 12:09	WG1477296
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*05/19/2020 12:09*	WG1477296
(S) o-Terphenyl	*136*	J7		*18.0-148*		*05/19/2020 15:44*	WG1477296

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0121	0.0348	1	05/18/2020 12:11	WG1477089
PCB 1221	U		0.0121	0.0348	1	05/18/2020 12:11	WG1477089
PCB 1232	U		0.0121	0.0348	1	05/18/2020 12:11	WG1477089
PCB 1242	U		0.0121	0.0348	1	05/18/2020 12:11	WG1477089
PCB 1248	U		0.00755	0.0174	1	05/18/2020 12:11	WG1477089
PCB 1254	U		0.00755	0.0174	1	05/18/2020 12:11	WG1477089
PCB 1260	U		0.00755	0.0174	1	05/18/2020 12:11	WG1477089
(S) Decachlorobiphenyl	*50.2*			*10.0-135*		*05/18/2020 12:11*	WG1477089
(S) Tetrachloro-m-xylene	*53.0*			*10.0-139*		*05/18/2020 12:11*	WG1477089

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.2		1	05/19/2020 21:38	WG1478876

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0736		0.0195	0.0434	1	05/18/2020 09:06	WG1477233

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.542	2.17	1	05/16/2020 18:25	WG1477073
Arsenic	8.44		0.499	2.17	1	05/16/2020 18:25	WG1477073
Barium	248		0.260	0.542	1	05/16/2020 18:25	WG1477073
Beryllium	0.583		0.0867	0.217	1	05/16/2020 18:25	WG1477073
Cadmium	0.905		0.0878	0.542	1	05/16/2020 18:25	WG1477073
Chromium	58.1		0.271	1.08	1	05/16/2020 18:25	WG1477073
Cobalt	15.0		0.249	1.08	1	05/16/2020 18:25	WG1477073
Copper	37.2		0.549	2.17	1	05/16/2020 18:25	WG1477073
Lead	9.50		0.226	0.542	1	05/16/2020 18:25	WG1477073
Molybdenum	U		0.217	0.542	1	05/16/2020 18:25	WG1477073
Nickel	92.8		0.531	2.17	1	05/16/2020 18:25	WG1477073
Selenium	1.11	J	0.669	2.17	1	05/16/2020 18:25	WG1477073
Silver	U		0.247	1.08	1	05/16/2020 18:25	WG1477073
Thallium	U		0.384	2.17	1	05/16/2020 18:25	WG1477073
Vanadium	52.1		0.745	2.17	1	05/16/2020 18:25	WG1477073
Zinc	77.9		1.02	5.42	1	05/16/2020 18:25	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0396	0.0542	1	05/16/2020 12:09	WG1477213
Acrylonitrile	U		0.00391	0.0136	1	05/16/2020 12:09	WG1477213
Benzene	U		0.000506	0.00108	1	05/16/2020 12:09	WG1477213
Bromobenzene	U		0.000976	0.0136	1	05/16/2020 12:09	WG1477213
Bromodichloromethane	U		0.000786	0.00271	1	05/16/2020 12:09	WG1477213
Bromoform	U		0.00127	0.0271	1	05/16/2020 12:09	WG1477213
Bromomethane	U		0.00214	0.0136	1	05/16/2020 12:09	WG1477213
n-Butylbenzene	U		0.00569	0.0136	1	05/16/2020 12:09	WG1477213
sec-Butylbenzene	U		0.00312	0.0136	1	05/16/2020 12:09	WG1477213
tert-Butylbenzene	U		0.00211	0.00542	1	05/16/2020 12:09	WG1477213
Carbon tetrachloride	U		0.000974	0.00542	1	05/16/2020 12:09	WG1477213
Chlorobenzene	U		0.000228	0.00271	1	05/16/2020 12:09	WG1477213
Chlorodibromomethane	U		0.000664	0.00271	1	05/16/2020 12:09	WG1477213
Chloroethane	U		0.00184	0.00542	1	05/16/2020 12:09	WG1477213
Chloroform	U		0.00112	0.00271	1	05/16/2020 12:09	WG1477213
Chloromethane	U		0.00472	0.0136	1	05/16/2020 12:09	WG1477213
2-Chlorotoluene	U		0.000938	0.00271	1	05/16/2020 12:09	WG1477213
4-Chlorotoluene	U		0.000488	0.00542	1	05/16/2020 12:09	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00423	0.0271	1	05/16/2020 12:09	WG1477213
1,2-Dibromoethane	U		0.000703	0.00271	1	05/16/2020 12:09	WG1477213
Dibromomethane	U		0.000813	0.00542	1	05/16/2020 12:09	WG1477213
1,2-Dichlorobenzene	U		0.000461	0.00542	1	05/16/2020 12:09	WG1477213
1,3-Dichlorobenzene	U		0.000650	0.00542	1	05/16/2020 12:09	WG1477213
1,4-Dichlorobenzene	U		0.000759	0.00542	1	05/16/2020 12:09	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00175	0.00271	1	05/16/2020 12:09	WG1477213
1,1-Dichloroethane	U		0.000532	0.00271	1	05/16/2020 12:09	WG1477213
1,2-Dichloroethane	U		0.000704	0.00271	1	05/16/2020 12:09	WG1477213
1,1-Dichloroethene	U		0.000657	0.00271	1	05/16/2020 12:09	WG1477213
cis-1,2-Dichloroethene	U		0.000796	0.00271	1	05/16/2020 12:09	WG1477213
trans-1,2-Dichloroethene	U		0.00113	0.00542	1	05/16/2020 12:09	WG1477213
1,2-Dichloropropane	U		0.00154	0.00542	1	05/16/2020 12:09	WG1477213
1,1-Dichloropropene	U		0.000877	0.00271	1	05/16/2020 12:09	WG1477213
1,3-Dichloropropane	U		0.000543	0.00542	1	05/16/2020 12:09	WG1477213
cis-1,3-Dichloropropene	U		0.000821	0.00271	1	05/16/2020 12:09	WG1477213
trans-1,3-Dichloropropene	U		0.00124	0.00542	1	05/16/2020 12:09	WG1477213
2,2-Dichloropropane	U		0.00150	0.00271	1	05/16/2020 12:09	WG1477213
Di-isopropyl ether	U		0.000445	0.00108	1	05/16/2020 12:09	WG1477213
Ethylbenzene	U		0.000799	0.00271	1	05/16/2020 12:09	WG1477213
Hexachloro-1,3-butadiene	U		0.00650	0.0271	1	05/16/2020 12:09	WG1477213
Isopropylbenzene	U		0.000461	0.00271	1	05/16/2020 12:09	WG1477213
p-Isopropyltoluene	U		0.00276	0.00542	1	05/16/2020 12:09	WG1477213
2-Butanone (MEK)	U		0.0688	0.108	1	05/16/2020 12:09	WG1477213
Methylene Chloride	U		0.00720	0.0271	1	05/16/2020 12:09	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00247	0.0271	1	05/16/2020 12:09	WG1477213
Methyl tert-butyl ether	U		0.000379	0.00108	1	05/16/2020 12:09	WG1477213
Naphthalene	U		0.00529	0.0136	1	05/16/2020 12:09	WG1477213
n-Propylbenzene	U		0.00103	0.00542	1	05/16/2020 12:09	WG1477213
Styrene	U		0.000248	0.0136	1	05/16/2020 12:09	WG1477213
1,1,1,2-Tetrachloroethane	U		0.00103	0.00271	1	05/16/2020 12:09	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000753	0.00271	1	05/16/2020 12:09	WG1477213
1,1,2-Trichlorotrifluoroethane	U		0.000817	0.00271	1	05/16/2020 12:09	WG1477213
Tetrachloroethene	U		0.000971	0.00271	1	05/16/2020 12:09	WG1477213
Toluene	U		0.00141	0.00542	1	05/16/2020 12:09	WG1477213
1,2,3-Trichlorobenzene	U		0.00795	0.0136	1	05/16/2020 12:09	WG1477213
1,2,4-Trichlorobenzene	U		0.00477	0.0136	1	05/16/2020 12:09	WG1477213
1,1,1-Trichloroethane	U		0.00100	0.00271	1	05/16/2020 12:09	WG1477213
1,1,2-Trichloroethane	U		0.000647	0.00271	1	05/16/2020 12:09	WG1477213
Trichloroethene	U		0.000633	0.00108	1	05/16/2020 12:09	WG1477213
Trichlorofluoromethane	U		0.000897	0.00271	1	05/16/2020 12:09	WG1477213
1,2,3-Trichloropropane	U		0.00176	0.0136	1	05/16/2020 12:09	WG1477213
1,2,4-Trimethylbenzene	U		0.00171	0.00542	1	05/16/2020 12:09	WG1477213
1,2,3-Trimethylbenzene	U		0.00171	0.00542	1	05/16/2020 12:09	WG1477213
1,3,5-Trimethylbenzene	U		0.00217	0.00542	1	05/16/2020 12:09	WG1477213
Vinyl chloride	U		0.00126	0.00271	1	05/16/2020 12:09	WG1477213
Xylenes, Total	U		0.000954	0.00705	1	05/16/2020 12:09	WG1477213
(S) Toluene-d8	*101*			*75.0-131*		*05/16/2020 12:09*	WG1477213
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*05/16/2020 12:09*	WG1477213
(S) 1,2-Dichloroethane-d4	*97.1*			*70.0-130*		*05/16/2020 12:09*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.795	4.34	1	05/19/2020 07:36	WG1477296
C22-C32 Hydrocarbons	U		1.44	4.34	1	05/19/2020 07:36	WG1477296
C32-C40 Hydrocarbons	U		1.44	4.34	1	05/19/2020 07:36	WG1477296
(S) o-Terphenyl	*104*			*18.0-148*		*05/19/2020 07:36*	WG1477296

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.8		1	05/19/2020 21:38	WG1478876

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C12-C22 Hydrocarbons	U		0.799	4.36	1	05/19/2020 07:51	WG1477296
C22-C32 Hydrocarbons	U		1.45	4.36	1	05/19/2020 07:51	WG1477296
C32-C40 Hydrocarbons	U		1.45	4.36	1	05/19/2020 07:51	WG1477296
(S) o-Terphenyl	*89.4*			*18.0-148*		*05/19/2020 07:51*	WG1477296

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.4		1	05/19/2020 21:38	WG1478876

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0399	0.0547	1	05/16/2020 12:30	WG1477213
Acrylonitrile	U		0.00395	0.0137	1	05/16/2020 12:30	WG1477213
Benzene	U		0.000511	0.00109	1	05/16/2020 12:30	WG1477213
Bromobenzene	U		0.000985	0.0137	1	05/16/2020 12:30	WG1477213
Bromodichloromethane	U		0.000794	0.00274	1	05/16/2020 12:30	WG1477213
Bromoform	U		0.00128	0.0274	1	05/16/2020 12:30	WG1477213
Bromomethane	U		0.00216	0.0137	1	05/16/2020 12:30	WG1477213
n-Butylbenzene	U		0.00575	0.0137	1	05/16/2020 12:30	WG1477213
sec-Butylbenzene	U		0.00315	0.0137	1	05/16/2020 12:30	WG1477213
tert-Butylbenzene	U		0.00213	0.00547	1	05/16/2020 12:30	WG1477213
Carbon tetrachloride	U		0.000983	0.00547	1	05/16/2020 12:30	WG1477213
Chlorobenzene	U		0.000230	0.00274	1	05/16/2020 12:30	WG1477213
Chlorodibromomethane	U		0.000670	0.00274	1	05/16/2020 12:30	WG1477213
Chloroethane	U		0.00186	0.00547	1	05/16/2020 12:30	WG1477213
Chloroform	U		0.00113	0.00274	1	05/16/2020 12:30	WG1477213
Chloromethane	U		0.00476	0.0137	1	05/16/2020 12:30	WG1477213
2-Chlorotoluene	U		0.000947	0.00274	1	05/16/2020 12:30	WG1477213
4-Chlorotoluene	U		0.000493	0.00547	1	05/16/2020 12:30	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00427	0.0274	1	05/16/2020 12:30	WG1477213
1,2-Dibromoethane	U		0.000709	0.00274	1	05/16/2020 12:30	WG1477213
Dibromomethane	U		0.000821	0.00547	1	05/16/2020 12:30	WG1477213
1,2-Dichlorobenzene	U		0.000465	0.00547	1	05/16/2020 12:30	WG1477213
1,3-Dichlorobenzene	U		0.000657	0.00547	1	05/16/2020 12:30	WG1477213
1,4-Dichlorobenzene	U		0.000766	0.00547	1	05/16/2020 12:30	WG1477213
Dichlorodifluoromethane	U		0.00176	0.00274	1	05/16/2020 12:30	WG1477213
1,1-Dichloroethane	U		0.000537	0.00274	1	05/16/2020 12:30	WG1477213
1,2-Dichloroethane	U		0.000710	0.00274	1	05/16/2020 12:30	WG1477213
1,1-Dichloroethene	U		0.000663	0.00274	1	05/16/2020 12:30	WG1477213
cis-1,2-Dichloroethene	U		0.000803	0.00274	1	05/16/2020 12:30	WG1477213
trans-1,2-Dichloroethene	U		0.00114	0.00547	1	05/16/2020 12:30	WG1477213
1,2-Dichloropropane	U		0.00155	0.00547	1	05/16/2020 12:30	WG1477213
1,1-Dichloropropene	U		0.000885	0.00274	1	05/16/2020 12:30	WG1477213
1,3-Dichloropropane	U		0.000548	0.00547	1	05/16/2020 12:30	WG1477213
cis-1,3-Dichloropropene	U		0.000829	0.00274	1	05/16/2020 12:30	WG1477213
trans-1,3-Dichloropropene	U		0.00125	0.00547	1	05/16/2020 12:30	WG1477213
2,2-Dichloropropane	U		0.00151	0.00274	1	05/16/2020 12:30	WG1477213
Di-isopropyl ether	U		0.000449	0.00109	1	05/16/2020 12:30	WG1477213
Ethylbenzene	U		0.000807	0.00274	1	05/16/2020 12:30	WG1477213
Hexachloro-1,3-butadiene	U		0.00657	0.0274	1	05/16/2020 12:30	WG1477213
Isopropylbenzene	U		0.000465	0.00274	1	05/16/2020 12:30	WG1477213
p-Isopropyltoluene	U		0.00279	0.00547	1	05/16/2020 12:30	WG1477213
2-Butanone (MEK)	U		0.0695	0.109	1	05/16/2020 12:30	WG1477213
Methylene Chloride	U		0.00727	0.0274	1	05/16/2020 12:30	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00250	0.0274	1	05/16/2020 12:30	WG1477213
Methyl tert-butyl ether	U		0.000383	0.00109	1	05/16/2020 12:30	WG1477213
Naphthalene	U		0.00534	0.0137	1	05/16/2020 12:30	WG1477213
n-Propylbenzene	U		0.00104	0.00547	1	05/16/2020 12:30	WG1477213
Styrene	U		0.000251	0.0137	1	05/16/2020 12:30	WG1477213
1,1,1,2-Tetrachloroethane	U		0.00104	0.00274	1	05/16/2020 12:30	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000761	0.00274	1	05/16/2020 12:30	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000825	0.00274	1	05/16/2020 12:30	WG1477213
Tetrachloroethene	U		0.000981	0.00274	1	05/16/2020 12:30	WG1477213
Toluene	U		0.00142	0.00547	1	05/16/2020 12:30	WG1477213
1,2,3-Trichlorobenzene	U		0.00802	0.0137	1	05/16/2020 12:30	WG1477213
1,2,4-Trichlorobenzene	U		0.00482	0.0137	1	05/16/2020 12:30	WG1477213
1,1,1-Trichloroethane	U		0.00101	0.00274	1	05/16/2020 12:30	WG1477213
1,1,2-Trichloroethane	U		0.000653	0.00274	1	05/16/2020 12:30	WG1477213
Trichloroethene	U		0.000639	0.00109	1	05/16/2020 12:30	WG1477213
Trichlorofluoromethane	U		0.000905	0.00274	1	05/16/2020 12:30	WG1477213
1,2,3-Trichloropropane	U		0.00177	0.0137	1	05/16/2020 12:30	WG1477213
1,2,4-Trimethylbenzene	U		0.00173	0.00547	1	05/16/2020 12:30	WG1477213
1,2,3-Trimethylbenzene	U		0.00173	0.00547	1	05/16/2020 12:30	WG1477213
1,3,5-Trimethylbenzene	U		0.00219	0.00547	1	05/16/2020 12:30	WG1477213
Vinyl chloride	U		0.00127	0.00274	1	05/16/2020 12:30	WG1477213
Xylenes, Total	U		0.000963	0.00711	1	05/16/2020 12:30	WG1477213
(S) Toluene-d8	*104*			*75.0-131*		*05/16/2020 12:30*	WG1477213
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*05/16/2020 12:30*	WG1477213
(S) 1,2-Dichloroethane-d4	*95.4*			*70.0-130*		*05/16/2020 12:30*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.802	4.38	1	05/19/2020 18:49	WG1477296
C22-C32 Hydrocarbons	3.01	J	1.46	4.38	1	05/19/2020 18:49	WG1477296
C32-C40 Hydrocarbons	2.43	J	1.46	4.38	1	05/19/2020 18:49	WG1477296
(S) o-Terphenyl	*87.5*			*18.0-148*		*05/19/2020 18:49*	WG1477296

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.9		1	05/19/2020 21:45	WG1478877

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0389	0.0532	1	05/16/2020 12:50	WG1477213
Acrylonitrile	U		0.00384	0.0133	1	05/16/2020 12:50	WG1477213
Benzene	U		0.000497	0.00106	1	05/16/2020 12:50	WG1477213
Bromobenzene	U		0.000958	0.0133	1	05/16/2020 12:50	WG1477213
Bromodichloromethane	U		0.000772	0.00266	1	05/16/2020 12:50	WG1477213
Bromoform	U		0.00125	0.0266	1	05/16/2020 12:50	WG1477213
Bromomethane	U		0.00210	0.0133	1	05/16/2020 12:50	WG1477213
n-Butylbenzene	U		0.00559	0.0133	1	05/16/2020 12:50	WG1477213
sec-Butylbenzene	U		0.00307	0.0133	1	05/16/2020 12:50	WG1477213
tert-Butylbenzene	U		0.00208	0.00532	1	05/16/2020 12:50	WG1477213
Carbon tetrachloride	U		0.000956	0.00532	1	05/16/2020 12:50	WG1477213
Chlorobenzene	U		0.000224	0.00266	1	05/16/2020 12:50	WG1477213
Chlorodibromomethane	U		0.000652	0.00266	1	05/16/2020 12:50	WG1477213
Chloroethane	U		0.00181	0.00532	1	05/16/2020 12:50	WG1477213
Chloroform	U		0.00110	0.00266	1	05/16/2020 12:50	WG1477213
Chloromethane	U		0.00463	0.0133	1	05/16/2020 12:50	WG1477213
2-Chlorotoluene	U		0.000921	0.00266	1	05/16/2020 12:50	WG1477213
4-Chlorotoluene	U		0.000479	0.00532	1	05/16/2020 12:50	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00415	0.0266	1	05/16/2020 12:50	WG1477213
1,2-Dibromoethane	U		0.000690	0.00266	1	05/16/2020 12:50	WG1477213
Dibromomethane	U		0.000799	0.00532	1	05/16/2020 12:50	WG1477213
1,2-Dichlorobenzene	U		0.000453	0.00532	1	05/16/2020 12:50	WG1477213
1,3-Dichlorobenzene	U		0.000639	0.00532	1	05/16/2020 12:50	WG1477213
1,4-Dichlorobenzene	U		0.000745	0.00532	1	05/16/2020 12:50	WG1477213
Dichlorodifluoromethane	U		0.00171	0.00266	1	05/16/2020 12:50	WG1477213
1,1-Dichloroethane	U		0.000523	0.00266	1	05/16/2020 12:50	WG1477213
1,2-Dichloroethane	U		0.000691	0.00266	1	05/16/2020 12:50	WG1477213
1,1-Dichloroethene	U		0.000645	0.00266	1	05/16/2020 12:50	WG1477213
cis-1,2-Dichloroethene	U		0.000782	0.00266	1	05/16/2020 12:50	WG1477213
trans-1,2-Dichloroethene	U		0.00111	0.00532	1	05/16/2020 12:50	WG1477213
1,2-Dichloropropane	U		0.00151	0.00532	1	05/16/2020 12:50	WG1477213
1,1-Dichloropropene	U		0.000861	0.00266	1	05/16/2020 12:50	WG1477213
1,3-Dichloropropane	U		0.000533	0.00532	1	05/16/2020 12:50	WG1477213
cis-1,3-Dichloropropene	U		0.000806	0.00266	1	05/16/2020 12:50	WG1477213
trans-1,3-Dichloropropene	U		0.00121	0.00532	1	05/16/2020 12:50	WG1477213
2,2-Dichloropropane	U		0.00147	0.00266	1	05/16/2020 12:50	WG1477213
Di-isopropyl ether	U		0.000437	0.00106	1	05/16/2020 12:50	WG1477213
Ethylbenzene	U		0.000785	0.00266	1	05/16/2020 12:50	WG1477213
Hexachloro-1,3-butadiene	U		0.00639	0.0266	1	05/16/2020 12:50	WG1477213
Isopropylbenzene	U		0.000453	0.00266	1	05/16/2020 12:50	WG1477213
p-Isopropyltoluene	U		0.00272	0.00532	1	05/16/2020 12:50	WG1477213
2-Butanone (MEK)	U		0.0676	0.106	1	05/16/2020 12:50	WG1477213
Methylene Chloride	U		0.00707	0.0266	1	05/16/2020 12:50	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00243	0.0266	1	05/16/2020 12:50	WG1477213
Methyl tert-butyl ether	U		0.000373	0.00106	1	05/16/2020 12:50	WG1477213
Naphthalene	U		0.00520	0.0133	1	05/16/2020 12:50	WG1477213
n-Propylbenzene	U		0.00101	0.00532	1	05/16/2020 12:50	WG1477213
Styrene	U		0.000244	0.0133	1	05/16/2020 12:50	WG1477213
1,1,1,2-Tetrachloroethane	U		0.00101	0.00266	1	05/16/2020 12:50	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000740	0.00266	1	05/16/2020 12:50	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000803	0.00266	1	05/16/2020 12:50	WG1477213
Tetrachloroethene	U		0.000954	0.00266	1	05/16/2020 12:50	WG1477213
Toluene	U		0.00138	0.00532	1	05/16/2020 12:50	WG1477213
1,2,3-Trichlorobenzene	U		0.00780	0.0133	1	05/16/2020 12:50	WG1477213
1,2,4-Trichlorobenzene	U		0.00469	0.0133	1	05/16/2020 12:50	WG1477213
1,1,1-Trichloroethane	U		0.000983	0.00266	1	05/16/2020 12:50	WG1477213
1,1,2-Trichloroethane	U		0.000636	0.00266	1	05/16/2020 12:50	WG1477213
Trichloroethene	U		0.000622	0.00106	1	05/16/2020 12:50	WG1477213
Trichlorofluoromethane	U		0.000881	0.00266	1	05/16/2020 12:50	WG1477213
1,2,3-Trichloropropane	U		0.00172	0.0133	1	05/16/2020 12:50	WG1477213
1,2,4-Trimethylbenzene	U		0.00168	0.00532	1	05/16/2020 12:50	WG1477213
1,2,3-Trimethylbenzene	U		0.00168	0.00532	1	05/16/2020 12:50	WG1477213
1,3,5-Trimethylbenzene	U		0.00213	0.00532	1	05/16/2020 12:50	WG1477213
Vinyl chloride	U		0.00124	0.00266	1	05/16/2020 12:50	WG1477213
Xylenes, Total	U		0.000937	0.00692	1	05/16/2020 12:50	WG1477213
(S) Toluene-d8	*105*			*75.0-131*		*05/16/2020 12:50*	WG1477213
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*05/16/2020 12:50*	WG1477213
(S) 1,2-Dichloroethane-d4	*92.4*			*70.0-130*		*05/16/2020 12:50*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.780	4.26	1	05/19/2020 08:05	WG1477296
C22-C32 Hydrocarbons	U		1.42	4.26	1	05/19/2020 08:05	WG1477296
C32-C40 Hydrocarbons	U		1.42	4.26	1	05/19/2020 08:05	WG1477296
(S) o-Terphenyl	*114*			*18.0-148*		*05/19/2020 08:05*	WG1477296

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.6		1	05/19/2020 21:45	WG1478877

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0659		0.0184	0.0410	1	05/18/2020 09:08	WG1477233

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	0.660	J	0.512	2.05	1	05/16/2020 18:27	WG1477073
Arsenic	1.00	J	0.471	2.05	1	05/16/2020 18:27	WG1477073
Barium	158		0.246	0.512	1	05/16/2020 18:27	WG1477073
Beryllium	0.159	J	0.0820	0.205	1	05/16/2020 18:27	WG1477073
Cadmium	0.626		0.0830	0.512	1	05/16/2020 18:27	WG1477073
Chromium	30.9		0.256	1.02	1	05/16/2020 18:27	WG1477073
Cobalt	10.5		0.236	1.02	1	05/16/2020 18:27	WG1477073
Copper	119		0.518	2.05	1	05/16/2020 18:27	WG1477073
Lead	24.5		0.213	0.512	1	05/16/2020 18:27	WG1477073
Molybdenum	1.18		0.205	0.512	1	05/16/2020 18:27	WG1477073
Nickel	45.4		0.502	2.05	1	05/16/2020 18:27	WG1477073
Selenium	U		0.632	2.05	1	05/16/2020 18:27	WG1477073
Silver	U		0.234	1.02	1	05/16/2020 18:27	WG1477073
Thallium	U		0.363	2.05	1	05/16/2020 18:27	WG1477073
Vanadium	53.9		0.704	2.05	1	05/16/2020 18:27	WG1477073
Zinc	52.8		0.962	5.12	1	05/16/2020 18:27	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0374	0.0512	1	05/16/2020 13:11	WG1477213
Acrylonitrile	U		0.00370	0.0128	1	05/16/2020 13:11	WG1477213
Benzene	U		0.000478	0.00102	1	05/16/2020 13:11	WG1477213
Bromobenzene	U		0.000922	0.0128	1	05/16/2020 13:11	WG1477213
Bromodichloromethane	U		0.000743	0.00256	1	05/16/2020 13:11	WG1477213
Bromoform	U		0.00120	0.0256	1	05/16/2020 13:11	WG1477213
Bromomethane	U		0.00202	0.0128	1	05/16/2020 13:11	WG1477213
n-Butylbenzene	U		0.00538	0.0128	1	05/16/2020 13:11	WG1477213
sec-Butylbenzene	U		0.00295	0.0128	1	05/16/2020 13:11	WG1477213
tert-Butylbenzene	U		0.00200	0.00512	1	05/16/2020 13:11	WG1477213
Carbon tetrachloride	U		0.000920	0.00512	1	05/16/2020 13:11	WG1477213
Chlorobenzene	U		0.000215	0.00256	1	05/16/2020 13:11	WG1477213
Chlorodibromomethane	U		0.000627	0.00256	1	05/16/2020 13:11	WG1477213
Chloroethane	U		0.00174	0.00512	1	05/16/2020 13:11	WG1477213
Chloroform	U		0.00106	0.00256	1	05/16/2020 13:11	WG1477213
Chloromethane	U		0.00446	0.0128	1	05/16/2020 13:11	WG1477213
2-Chlorotoluene	U		0.000886	0.00256	1	05/16/2020 13:11	WG1477213
4-Chlorotoluene	U		0.000461	0.00512	1	05/16/2020 13:11	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00400	0.0256	1	05/16/2020 13:11	WG1477213
1,2-Dibromoethane	U		0.000664	0.00256	1	05/16/2020 13:11	WG1477213
Dibromomethane	U		0.000768	0.00512	1	05/16/2020 13:11	WG1477213
1,2-Dichlorobenzene	U		0.000435	0.00512	1	05/16/2020 13:11	WG1477213
1,3-Dichlorobenzene	U		0.000615	0.00512	1	05/16/2020 13:11	WG1477213
1,4-Dichlorobenzene	U		0.000717	0.00512	1	05/16/2020 13:11	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00165	0.00256	1	05/16/2020 13:11	WG1477213
1,1-Dichloroethane	U		0.000503	0.00256	1	05/16/2020 13:11	WG1477213
1,2-Dichloroethane	U		0.000665	0.00256	1	05/16/2020 13:11	WG1477213
1,1-Dichloroethene	U		0.000621	0.00256	1	05/16/2020 13:11	WG1477213
cis-1,2-Dichloroethene	U		0.000752	0.00256	1	05/16/2020 13:11	WG1477213
trans-1,2-Dichloroethene	U		0.00107	0.00512	1	05/16/2020 13:11	WG1477213
1,2-Dichloropropane	U		0.00145	0.00512	1	05/16/2020 13:11	WG1477213
1,1-Dichloropropene	U		0.000829	0.00256	1	05/16/2020 13:11	WG1477213
1,3-Dichloropropane	U		0.000513	0.00512	1	05/16/2020 13:11	WG1477213
cis-1,3-Dichloropropene	U		0.000776	0.00256	1	05/16/2020 13:11	WG1477213
trans-1,3-Dichloropropene	U		0.00117	0.00512	1	05/16/2020 13:11	WG1477213
2,2-Dichloropropane	U		0.00141	0.00256	1	05/16/2020 13:11	WG1477213
Di-isopropyl ether	U		0.000420	0.00102	1	05/16/2020 13:11	WG1477213
Ethylbenzene	U		0.000755	0.00256	1	05/16/2020 13:11	WG1477213
Hexachloro-1,3-butadiene	U		0.00615	0.0256	1	05/16/2020 13:11	WG1477213
Isopropylbenzene	U		0.000435	0.00256	1	05/16/2020 13:11	WG1477213
p-Isopropyltoluene	U		0.00261	0.00512	1	05/16/2020 13:11	WG1477213
2-Butanone (MEK)	U		0.0651	0.102	1	05/16/2020 13:11	WG1477213
Methylene Chloride	U		0.00680	0.0256	1	05/16/2020 13:11	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00234	0.0256	1	05/16/2020 13:11	WG1477213
Methyl tert-butyl ether	U		0.000359	0.00102	1	05/16/2020 13:11	WG1477213
Naphthalene	U		0.00500	0.0128	1	05/16/2020 13:11	WG1477213
n-Propylbenzene	U		0.000973	0.00512	1	05/16/2020 13:11	WG1477213
Styrene	U		0.000235	0.0128	1	05/16/2020 13:11	WG1477213
1,1,1,2-Tetrachloroethane	U		0.000971	0.00256	1	05/16/2020 13:11	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000712	0.00256	1	05/16/2020 13:11	WG1477213
1,1,2-Trichlorotrifluoroethane	U		0.000773	0.00256	1	05/16/2020 13:11	WG1477213
Tetrachloroethene	0.000999	J	0.000918	0.00256	1	05/16/2020 13:11	WG1477213
Toluene	0.00154	J	0.00133	0.00512	1	05/16/2020 13:11	WG1477213
1,2,3-Trichlorobenzene	U		0.00751	0.0128	1	05/16/2020 13:11	WG1477213
1,2,4-Trichlorobenzene	U		0.00451	0.0128	1	05/16/2020 13:11	WG1477213
1,1,1-Trichloroethane	U		0.000946	0.00256	1	05/16/2020 13:11	WG1477213
1,1,2-Trichloroethane	U		0.000612	0.00256	1	05/16/2020 13:11	WG1477213
Trichloroethene	U		0.000598	0.00102	1	05/16/2020 13:11	WG1477213
Trichlorofluoromethane	U		0.000847	0.00256	1	05/16/2020 13:11	WG1477213
1,2,3-Trichloropropane	U		0.00166	0.0128	1	05/16/2020 13:11	WG1477213
1,2,4-Trimethylbenzene	U		0.00162	0.00512	1	05/16/2020 13:11	WG1477213
1,2,3-Trimethylbenzene	U		0.00162	0.00512	1	05/16/2020 13:11	WG1477213
1,3,5-Trimethylbenzene	U		0.00205	0.00512	1	05/16/2020 13:11	WG1477213
Vinyl chloride	U		0.00119	0.00256	1	05/16/2020 13:11	WG1477213
Xylenes, Total	0.000903	J	0.000902	0.00666	1	05/16/2020 13:11	WG1477213
(S) Toluene-d8	*102*			*75.0-131*		*05/16/2020 13:11*	WG1477213
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*05/16/2020 13:11*	WG1477213
(S) 1,2-Dichloroethane-d4	*96.3*			*70.0-130*		*05/16/2020 13:11*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		75.1	410	100	05/19/2020 11:54	WG1477296
C22-C32 Hydrocarbons	747		136	410	100	05/19/2020 11:54	WG1477296
C32-C40 Hydrocarbons	677		136	410	100	05/19/2020 11:54	WG1477296
(S) o-Terphenyl	*134*	J7		*18.0-148*		*05/19/2020 11:54*	WG1477296

Sample Narrative:

L1217589-06 WG1477296: Cannot run at lower dilution due to viscosity of extract

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0121	0.0348	1	05/18/2020 12:25	WG1477089
PCB 1221	U		0.0121	0.0348	1	05/18/2020 12:25	WG1477089
PCB 1232	U		0.0121	0.0348	1	05/18/2020 12:25	WG1477089
PCB 1242	U		0.0121	0.0348	1	05/18/2020 12:25	WG1477089
PCB 1248	U		0.00756	0.0174	1	05/18/2020 12:25	WG1477089
PCB 1254	U		0.00756	0.0174	1	05/18/2020 12:25	WG1477089
PCB 1260	U		0.00756	0.0174	1	05/18/2020 12:25	WG1477089
(S) Decachlorobiphenyl	*53.5*			*10.0-135*		*05/18/2020 12:25*	WG1477089
(S) Tetrachloro-m-xylene	*64.1*			*10.0-139*		*05/18/2020 12:25*	WG1477089

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.0		1	05/19/2020 21:45	WG1478877

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0597		0.0200	0.0445	1	05/18/2020 09:11	WG1477233

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	1.95	J	0.556	2.22	1	05/16/2020 18:35	WG1477073
Arsenic	3.81		0.511	2.22	1	05/16/2020 18:35	WG1477073
Barium	166		0.267	0.556	1	05/16/2020 18:35	WG1477073
Beryllium	0.345		0.0889	0.222	1	05/16/2020 18:35	WG1477073
Cadmium	1.09		0.0900	0.556	1	05/16/2020 18:35	WG1477073
Chromium	112		0.278	1.11	1	05/16/2020 18:35	WG1477073
Cobalt	20.2		0.256	1.11	1	05/16/2020 18:35	WG1477073
Copper	36.8		0.562	2.22	1	05/16/2020 18:35	WG1477073
Lead	12.2		0.231	0.556	1	05/16/2020 18:35	WG1477073
Molybdenum	U		0.222	0.556	1	05/16/2020 18:35	WG1477073
Nickel	187		0.545	2.22	1	05/16/2020 18:35	WG1477073
Selenium	0.928	J	0.686	2.22	1	05/16/2020 18:35	WG1477073
Silver	U		0.253	1.11	1	05/16/2020 18:35	WG1477073
Thallium	U		0.394	2.22	1	05/16/2020 18:35	WG1477073
Vanadium	84.6		0.764	2.22	1	05/16/2020 18:35	WG1477073
Zinc	151		1.04	5.56	1	05/16/2020 18:35	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0406	0.0556	1	05/16/2020 13:31	WG1477213
Acrylonitrile	U		0.00401	0.0139	1	05/16/2020 13:31	WG1477213
Benzene	U		0.000519	0.00111	1	05/16/2020 13:31	WG1477213
Bromobenzene	U		0.00100	0.0139	1	05/16/2020 13:31	WG1477213
Bromodichloromethane	U		0.000806	0.00278	1	05/16/2020 13:31	WG1477213
Bromoform	U		0.00130	0.0278	1	05/16/2020 13:31	WG1477213
Bromomethane	U		0.00219	0.0139	1	05/16/2020 13:31	WG1477213
n-Butylbenzene	U		0.00584	0.0139	1	05/16/2020 13:31	WG1477213
sec-Butylbenzene	U		0.00320	0.0139	1	05/16/2020 13:31	WG1477213
tert-Butylbenzene	U		0.00217	0.00556	1	05/16/2020 13:31	WG1477213
Carbon tetrachloride	U		0.000998	0.00556	1	05/16/2020 13:31	WG1477213
Chlorobenzene	U		0.000233	0.00278	1	05/16/2020 13:31	WG1477213
Chlorodibromomethane	U		0.000680	0.00278	1	05/16/2020 13:31	WG1477213
Chloroethane	U		0.00189	0.00556	1	05/16/2020 13:31	WG1477213
Chloroform	U		0.00114	0.00278	1	05/16/2020 13:31	WG1477213
Chloromethane	U		0.00484	0.0139	1	05/16/2020 13:31	WG1477213
2-Chlorotoluene	U		0.000962	0.00278	1	05/16/2020 13:31	WG1477213
4-Chlorotoluene	U		0.000500	0.00556	1	05/16/2020 13:31	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00434	0.0278	1	05/16/2020 13:31	WG1477213
1,2-Dibromoethane	U		0.000720	0.00278	1	05/16/2020 13:31	WG1477213
Dibromomethane	U		0.000834	0.00556	1	05/16/2020 13:31	WG1477213
1,2-Dichlorobenzene	U		0.000472	0.00556	1	05/16/2020 13:31	WG1477213
1,3-Dichlorobenzene	U		0.000667	0.00556	1	05/16/2020 13:31	WG1477213
1,4-Dichlorobenzene	U		0.000778	0.00556	1	05/16/2020 13:31	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00179	0.00278	1	05/16/2020 13:31	WG1477213
1,1-Dichloroethane	U		0.000546	0.00278	1	05/16/2020 13:31	WG1477213
1,2-Dichloroethane	U		0.000721	0.00278	1	05/16/2020 13:31	WG1477213
1,1-Dichloroethene	U		0.000674	0.00278	1	05/16/2020 13:31	WG1477213
cis-1,2-Dichloroethene	U		0.000816	0.00278	1	05/16/2020 13:31	WG1477213
trans-1,2-Dichloroethene	U		0.00116	0.00556	1	05/16/2020 13:31	WG1477213
1,2-Dichloropropane	U		0.00158	0.00556	1	05/16/2020 13:31	WG1477213
1,1-Dichloropropene	U		0.000899	0.00278	1	05/16/2020 13:31	WG1477213
1,3-Dichloropropane	U		0.000557	0.00556	1	05/16/2020 13:31	WG1477213
cis-1,3-Dichloropropene	U		0.000841	0.00278	1	05/16/2020 13:31	WG1477213
trans-1,3-Dichloropropene	U		0.00127	0.00556	1	05/16/2020 13:31	WG1477213
2,2-Dichloropropane	U		0.00153	0.00278	1	05/16/2020 13:31	WG1477213
Di-isopropyl ether	U		0.000456	0.00111	1	05/16/2020 13:31	WG1477213
Ethylbenzene	U		0.000819	0.00278	1	05/16/2020 13:31	WG1477213
Hexachloro-1,3-butadiene	U		0.00667	0.0278	1	05/16/2020 13:31	WG1477213
Isopropylbenzene	U		0.000472	0.00278	1	05/16/2020 13:31	WG1477213
p-Isopropyltoluene	U		0.00283	0.00556	1	05/16/2020 13:31	WG1477213
2-Butanone (MEK)	U		0.0706	0.111	1	05/16/2020 13:31	WG1477213
Methylene Chloride	U		0.00738	0.0278	1	05/16/2020 13:31	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00253	0.0278	1	05/16/2020 13:31	WG1477213
Methyl tert-butyl ether	U		0.000389	0.00111	1	05/16/2020 13:31	WG1477213
Naphthalene	U		0.00542	0.0139	1	05/16/2020 13:31	WG1477213
n-Propylbenzene	U		0.00106	0.00556	1	05/16/2020 13:31	WG1477213
Styrene	U		0.000255	0.0139	1	05/16/2020 13:31	WG1477213
1,1,1,2-Tetrachloroethane	U		0.00105	0.00278	1	05/16/2020 13:31	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000773	0.00278	1	05/16/2020 13:31	WG1477213
1,1,2-Trichlorotrifluoroethane	U		0.000838	0.00278	1	05/16/2020 13:31	WG1477213
Tetrachloroethene	0.00124	J	0.000996	0.00278	1	05/16/2020 13:31	WG1477213
Toluene	0.00280	J	0.00145	0.00556	1	05/16/2020 13:31	WG1477213
1,2,3-Trichlorobenzene	U		0.00815	0.0139	1	05/16/2020 13:31	WG1477213
1,2,4-Trichlorobenzene	U		0.00489	0.0139	1	05/16/2020 13:31	WG1477213
1,1,1-Trichloroethane	U		0.00103	0.00278	1	05/16/2020 13:31	WG1477213
1,1,2-Trichloroethane	U		0.000664	0.00278	1	05/16/2020 13:31	WG1477213
Trichloroethene	U		0.000649	0.00111	1	05/16/2020 13:31	WG1477213
Trichlorofluoromethane	U		0.000919	0.00278	1	05/16/2020 13:31	WG1477213
1,2,3-Trichloropropane	U		0.00180	0.0139	1	05/16/2020 13:31	WG1477213
1,2,4-Trimethylbenzene	U		0.00176	0.00556	1	05/16/2020 13:31	WG1477213
1,2,3-Trimethylbenzene	U		0.00176	0.00556	1	05/16/2020 13:31	WG1477213
1,3,5-Trimethylbenzene	U		0.00222	0.00556	1	05/16/2020 13:31	WG1477213
Vinyl chloride	U		0.00129	0.00278	1	05/16/2020 13:31	WG1477213
Xylenes, Total	0.00130	J	0.000978	0.00723	1	05/16/2020 13:31	WG1477213
(S) Toluene-d8	*102*			*75.0-131*		*05/16/2020 13:31*	WG1477213
(S) 4-Bromofluorobenzene	*96.9*			*67.0-138*		*05/16/2020 13:31*	WG1477213
(S) 1,2-Dichloroethane-d4	*93.3*			*70.0-130*		*05/16/2020 13:31*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	4.74		0.815	4.45	1	05/19/2020 15:15	WG1477296
C22-C32 Hydrocarbons	59.1		1.48	4.45	1	05/19/2020 15:15	WG1477296
C32-C40 Hydrocarbons	41.1		1.48	4.45	1	05/19/2020 15:15	WG1477296
(S) o-Terphenyl	*47.8*			*18.0-148*		*05/19/2020 15:15*	WG1477296

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.3		1	05/19/2020 21:45	WG1478877

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0413	0.0566	1	05/16/2020 13:51	WG1477213
Acrylonitrile	U		0.00409	0.0142	1	05/16/2020 13:51	WG1477213
Benzene	U		0.000529	0.00113	1	05/16/2020 13:51	WG1477213
Bromobenzene	U		0.00102	0.0142	1	05/16/2020 13:51	WG1477213
Bromodichloromethane	U		0.000821	0.00283	1	05/16/2020 13:51	WG1477213
Bromoform	U		0.00133	0.0283	1	05/16/2020 13:51	WG1477213
Bromomethane	U		0.00223	0.0142	1	05/16/2020 13:51	WG1477213
n-Butylbenzene	U		0.00595	0.0142	1	05/16/2020 13:51	WG1477213
sec-Butylbenzene	U		0.00326	0.0142	1	05/16/2020 13:51	WG1477213
tert-Butylbenzene	U		0.00221	0.00566	1	05/16/2020 13:51	WG1477213
Carbon tetrachloride	U		0.00102	0.00566	1	05/16/2020 13:51	WG1477213
Chlorobenzene	U		0.000238	0.00283	1	05/16/2020 13:51	WG1477213
Chlorodibromomethane	U		0.000693	0.00283	1	05/16/2020 13:51	WG1477213
Chloroethane	U		0.00193	0.00566	1	05/16/2020 13:51	WG1477213
Chloroform	U		0.00117	0.00283	1	05/16/2020 13:51	WG1477213
Chloromethane	U		0.00493	0.0142	1	05/16/2020 13:51	WG1477213
2-Chlorotoluene	U		0.000980	0.00283	1	05/16/2020 13:51	WG1477213
4-Chlorotoluene	U		0.000510	0.00566	1	05/16/2020 13:51	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00442	0.0283	1	05/16/2020 13:51	WG1477213
1,2-Dibromoethane	U		0.000734	0.00283	1	05/16/2020 13:51	WG1477213
Dibromomethane	U		0.000850	0.00566	1	05/16/2020 13:51	WG1477213
1,2-Dichlorobenzene	U		0.000481	0.00566	1	05/16/2020 13:51	WG1477213
1,3-Dichlorobenzene	U		0.000680	0.00566	1	05/16/2020 13:51	WG1477213
1,4-Dichlorobenzene	U		0.000793	0.00566	1	05/16/2020 13:51	WG1477213
Dichlorodifluoromethane	U		0.00182	0.00283	1	05/16/2020 13:51	WG1477213
1,1-Dichloroethane	U		0.000556	0.00283	1	05/16/2020 13:51	WG1477213
1,2-Dichloroethane	U		0.000735	0.00283	1	05/16/2020 13:51	WG1477213
1,1-Dichloroethene	U		0.000687	0.00283	1	05/16/2020 13:51	WG1477213
cis-1,2-Dichloroethene	U		0.000832	0.00283	1	05/16/2020 13:51	WG1477213
trans-1,2-Dichloroethene	U		0.00118	0.00566	1	05/16/2020 13:51	WG1477213
1,2-Dichloropropane	U		0.00161	0.00566	1	05/16/2020 13:51	WG1477213
1,1-Dichloropropene	U		0.000916	0.00283	1	05/16/2020 13:51	WG1477213
1,3-Dichloropropane	U		0.000568	0.00566	1	05/16/2020 13:51	WG1477213
cis-1,3-Dichloropropene	U		0.000858	0.00283	1	05/16/2020 13:51	WG1477213
trans-1,3-Dichloropropene	U		0.00129	0.00566	1	05/16/2020 13:51	WG1477213
2,2-Dichloropropane	U		0.00156	0.00283	1	05/16/2020 13:51	WG1477213
Di-isopropyl ether	U		0.000464	0.00113	1	05/16/2020 13:51	WG1477213
Ethylbenzene	U		0.000835	0.00283	1	05/16/2020 13:51	WG1477213
Hexachloro-1,3-butadiene	U		0.00680	0.0283	1	05/16/2020 13:51	WG1477213
Isopropylbenzene	U		0.000481	0.00283	1	05/16/2020 13:51	WG1477213
p-Isopropyltoluene	U		0.00289	0.00566	1	05/16/2020 13:51	WG1477213
2-Butanone (MEK)	U		0.0719	0.113	1	05/16/2020 13:51	WG1477213
Methylene Chloride	U		0.00752	0.0283	1	05/16/2020 13:51	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00258	0.0283	1	05/16/2020 13:51	WG1477213
Methyl tert-butyl ether	U		0.000396	0.00113	1	05/16/2020 13:51	WG1477213
Naphthalene	U		0.00553	0.0142	1	05/16/2020 13:51	WG1477213
n-Propylbenzene	U		0.00108	0.00566	1	05/16/2020 13:51	WG1477213
Styrene	U		0.000259	0.0142	1	05/16/2020 13:51	WG1477213
1,1,1,2-Tetrachloroethane	U		0.00107	0.00283	1	05/16/2020 13:51	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000787	0.00283	1	05/16/2020 13:51	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000854	0.00283	1	05/16/2020 13:51	WG1477213
Tetrachloroethene	0.00131	J	0.00102	0.00283	1	05/16/2020 13:51	WG1477213
Toluene	0.00201	J	0.00147	0.00566	1	05/16/2020 13:51	WG1477213
1,2,3-Trichlorobenzene	U		0.00830	0.0142	1	05/16/2020 13:51	WG1477213
1,2,4-Trichlorobenzene	U		0.00498	0.0142	1	05/16/2020 13:51	WG1477213
1,1,1-Trichloroethane	U		0.00105	0.00283	1	05/16/2020 13:51	WG1477213
1,1,2-Trichloroethane	U		0.000676	0.00283	1	05/16/2020 13:51	WG1477213
Trichloroethene	U		0.000662	0.00113	1	05/16/2020 13:51	WG1477213
Trichlorofluoromethane	U		0.000937	0.00283	1	05/16/2020 13:51	WG1477213
1,2,3-Trichloropropane	U		0.00184	0.0142	1	05/16/2020 13:51	WG1477213
1,2,4-Trimethylbenzene	U		0.00179	0.00566	1	05/16/2020 13:51	WG1477213
1,2,3-Trimethylbenzene	U		0.00179	0.00566	1	05/16/2020 13:51	WG1477213
1,3,5-Trimethylbenzene	U		0.00227	0.00566	1	05/16/2020 13:51	WG1477213
Vinyl chloride	U		0.00131	0.00283	1	05/16/2020 13:51	WG1477213
Xylenes, Total	U		0.000997	0.00736	1	05/16/2020 13:51	WG1477213
(S) Toluene-d8	*103*			*75.0-131*		*05/16/2020 13:51*	WG1477213
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*05/16/2020 13:51*	WG1477213
(S) 1,2-Dichloroethane-d4	*92.6*			*70.0-130*		*05/16/2020 13:51*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.830	4.53	1	05/19/2020 08:20	WG1477296
C22-C32 Hydrocarbons	U		1.51	4.53	1	05/19/2020 08:20	WG1477296
C32-C40 Hydrocarbons	U		1.51	4.53	1	05/19/2020 08:20	WG1477296
(S) o-Terphenyl	*81.1*			*18.0-148*		*05/19/2020 08:20*	WG1477296

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.6		1	05/19/2020 21:45	WG1478877

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0403	0.0552	1	05/16/2020 14:11	WG1477213
Acrylonitrile	U		0.00398	0.0138	1	05/16/2020 14:11	WG1477213
Benzene	U		0.000515	0.00110	1	05/16/2020 14:11	WG1477213
Bromobenzene	U		0.000993	0.0138	1	05/16/2020 14:11	WG1477213
Bromodichloromethane	U		0.000800	0.00276	1	05/16/2020 14:11	WG1477213
Bromoform	U		0.00129	0.0276	1	05/16/2020 14:11	WG1477213
Bromomethane	U		0.00217	0.0138	1	05/16/2020 14:11	WG1477213
n-Butylbenzene	U		0.00579	0.0138	1	05/16/2020 14:11	WG1477213
sec-Butylbenzene	U		0.00318	0.0138	1	05/16/2020 14:11	WG1477213
tert-Butylbenzene	U		0.00215	0.00552	1	05/16/2020 14:11	WG1477213
Carbon tetrachloride	U		0.000991	0.00552	1	05/16/2020 14:11	WG1477213
Chlorobenzene	U		0.000232	0.00276	1	05/16/2020 14:11	WG1477213
Chlorodibromomethane	U		0.000675	0.00276	1	05/16/2020 14:11	WG1477213
Chloroethane	U		0.00188	0.00552	1	05/16/2020 14:11	WG1477213
Chloroform	U		0.00114	0.00276	1	05/16/2020 14:11	WG1477213
Chloromethane	U		0.00480	0.0138	1	05/16/2020 14:11	WG1477213
2-Chlorotoluene	U		0.000954	0.00276	1	05/16/2020 14:11	WG1477213
4-Chlorotoluene	U		0.000497	0.00552	1	05/16/2020 14:11	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00430	0.0276	1	05/16/2020 14:11	WG1477213
1,2-Dibromoethane	U		0.000715	0.00276	1	05/16/2020 14:11	WG1477213
Dibromomethane	U		0.000828	0.00552	1	05/16/2020 14:11	WG1477213
1,2-Dichlorobenzene	U		0.000469	0.00552	1	05/16/2020 14:11	WG1477213
1,3-Dichlorobenzene	U		0.000662	0.00552	1	05/16/2020 14:11	WG1477213
1,4-Dichlorobenzene	U		0.000772	0.00552	1	05/16/2020 14:11	WG1477213
Dichlorodifluoromethane	U		0.00178	0.00276	1	05/16/2020 14:11	WG1477213
1,1-Dichloroethane	U		0.000542	0.00276	1	05/16/2020 14:11	WG1477213
1,2-Dichloroethane	U		0.000716	0.00276	1	05/16/2020 14:11	WG1477213
1,1-Dichloroethene	U		0.000669	0.00276	1	05/16/2020 14:11	WG1477213
cis-1,2-Dichloroethene	U		0.000810	0.00276	1	05/16/2020 14:11	WG1477213
trans-1,2-Dichloroethene	U		0.00115	0.00552	1	05/16/2020 14:11	WG1477213
1,2-Dichloropropane	U		0.00157	0.00552	1	05/16/2020 14:11	WG1477213
1,1-Dichloropropene	U		0.000893	0.00276	1	05/16/2020 14:11	WG1477213
1,3-Dichloropropane	U		0.000553	0.00552	1	05/16/2020 14:11	WG1477213
cis-1,3-Dichloropropene	U		0.000835	0.00276	1	05/16/2020 14:11	WG1477213
trans-1,3-Dichloropropene	U		0.00126	0.00552	1	05/16/2020 14:11	WG1477213
2,2-Dichloropropane	U		0.00152	0.00276	1	05/16/2020 14:11	WG1477213
Di-isopropyl ether	U		0.000452	0.00110	1	05/16/2020 14:11	WG1477213
Ethylbenzene	U		0.000813	0.00276	1	05/16/2020 14:11	WG1477213
Hexachloro-1,3-butadiene	U		0.00662	0.0276	1	05/16/2020 14:11	WG1477213
Isopropylbenzene	U		0.000469	0.00276	1	05/16/2020 14:11	WG1477213
p-Isopropyltoluene	U		0.00281	0.00552	1	05/16/2020 14:11	WG1477213
2-Butanone (MEK)	U		0.0701	0.110	1	05/16/2020 14:11	WG1477213
Methylene Chloride	U		0.00733	0.0276	1	05/16/2020 14:11	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00252	0.0276	1	05/16/2020 14:11	WG1477213
Methyl tert-butyl ether	U		0.000386	0.00110	1	05/16/2020 14:11	WG1477213
Naphthalene	U		0.00538	0.0138	1	05/16/2020 14:11	WG1477213
n-Propylbenzene	U		0.00105	0.00552	1	05/16/2020 14:11	WG1477213
Styrene	U		0.000253	0.0138	1	05/16/2020 14:11	WG1477213
1,1,1,2-Tetrachloroethane	U		0.00105	0.00276	1	05/16/2020 14:11	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000767	0.00276	1	05/16/2020 14:11	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000832	0.00276	1	05/16/2020 14:11	WG1477213
Tetrachloroethene	U		0.000989	0.00276	1	05/16/2020 14:11	WG1477213
Toluene	U		0.00143	0.00552	1	05/16/2020 14:11	WG1477213
1,2,3-Trichlorobenzene	U		0.00809	0.0138	1	05/16/2020 14:11	WG1477213
1,2,4-Trichlorobenzene	U		0.00486	0.0138	1	05/16/2020 14:11	WG1477213
1,1,1-Trichloroethane	U		0.00102	0.00276	1	05/16/2020 14:11	WG1477213
1,1,2-Trichloroethane	U		0.000659	0.00276	1	05/16/2020 14:11	WG1477213
Trichloroethene	U		0.000644	0.00110	1	05/16/2020 14:11	WG1477213
Trichlorofluoromethane	U		0.000913	0.00276	1	05/16/2020 14:11	WG1477213
1,2,3-Trichloropropane	U		0.00179	0.0138	1	05/16/2020 14:11	WG1477213
1,2,4-Trimethylbenzene	U		0.00174	0.00552	1	05/16/2020 14:11	WG1477213
1,2,3-Trimethylbenzene	U		0.00174	0.00552	1	05/16/2020 14:11	WG1477213
1,3,5-Trimethylbenzene	U		0.00221	0.00552	1	05/16/2020 14:11	WG1477213
Vinyl chloride	U		0.00128	0.00276	1	05/16/2020 14:11	WG1477213
Xylenes, Total	U		0.000971	0.00717	1	05/16/2020 14:11	WG1477213
(S) Toluene-d8	*102*			*75.0-131*		*05/16/2020 14:11*	WG1477213
(S) 4-Bromofluorobenzene	*99.7*			*67.0-138*		*05/16/2020 14:11*	WG1477213
(S) 1,2-Dichloroethane-d4	*91.9*			*70.0-130*		*05/16/2020 14:11*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.809	4.41	1	05/19/2020 08:35	WG1477296
C22-C32 Hydrocarbons	U		1.47	4.41	1	05/19/2020 08:35	WG1477296
C32-C40 Hydrocarbons	U		1.47	4.41	1	05/19/2020 08:35	WG1477296
(S) o-Terphenyl	*102*			*18.0-148*		*05/19/2020 08:35*	WG1477296

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.0		1	05/19/2020 21:45	WG1478877

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0531		0.0200	0.0444	1	05/18/2020 09:14	WG1477233

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.556	2.22	1	05/16/2020 18:38	WG1477073
Arsenic	5.87		0.511	2.22	1	05/16/2020 18:38	WG1477073
Barium	230		0.267	0.556	1	05/16/2020 18:38	WG1477073
Beryllium	0.507		0.0889	0.222	1	05/16/2020 18:38	WG1477073
Cadmium	0.723		0.0900	0.556	1	05/16/2020 18:38	WG1477073
Chromium	79.5		0.278	1.11	1	05/16/2020 18:38	WG1477073
Cobalt	12.3		0.256	1.11	1	05/16/2020 18:38	WG1477073
Copper	30.5		0.562	2.22	1	05/16/2020 18:38	WG1477073
Lead	9.73		0.231	0.556	1	05/16/2020 18:38	WG1477073
Molybdenum	0.287	J	0.222	0.556	1	05/16/2020 18:38	WG1477073
Nickel	78.8		0.544	2.22	1	05/16/2020 18:38	WG1477073
Selenium	1.03	J	0.686	2.22	1	05/16/2020 18:38	WG1477073
Silver	U		0.253	1.11	1	05/16/2020 18:38	WG1477073
Thallium	U		0.393	2.22	1	05/16/2020 18:38	WG1477073
Vanadium	47.1		0.763	2.22	1	05/16/2020 18:38	WG1477073
Zinc	67.3		1.04	5.56	1	05/16/2020 18:38	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0568	0.0778	1.4	05/16/2020 14:31	WG1477213
Acrylonitrile	U		0.00561	0.0194	1.4	05/16/2020 14:31	WG1477213
Benzene	U		0.000727	0.00156	1.4	05/16/2020 14:31	WG1477213
Bromobenzene	U		0.00140	0.0194	1.4	05/16/2020 14:31	WG1477213
Bromodichloromethane	U		0.00113	0.00389	1.4	05/16/2020 14:31	WG1477213
Bromoform	U		0.00182	0.0389	1.4	05/16/2020 14:31	WG1477213
Bromomethane	U		0.00307	0.0194	1.4	05/16/2020 14:31	WG1477213
n-Butylbenzene	U		0.00817	0.0194	1.4	05/16/2020 14:31	WG1477213
sec-Butylbenzene	U		0.00448	0.0194	1.4	05/16/2020 14:31	WG1477213
tert-Butylbenzene	U		0.00303	0.00778	1.4	05/16/2020 14:31	WG1477213
Carbon tetrachloride	U		0.00140	0.00778	1.4	05/16/2020 14:31	WG1477213
Chlorobenzene	U		0.000327	0.00389	1.4	05/16/2020 14:31	WG1477213
Chlorodibromomethane	U		0.000952	0.00389	1.4	05/16/2020 14:31	WG1477213
Chloroethane	U		0.00264	0.00778	1.4	05/16/2020 14:31	WG1477213
Chloroform	U		0.00160	0.00389	1.4	05/16/2020 14:31	WG1477213
Chloromethane	U		0.00677	0.0194	1.4	05/16/2020 14:31	WG1477213
2-Chlorotoluene	U		0.00134	0.00389	1.4	05/16/2020 14:31	WG1477213
4-Chlorotoluene	U		0.000700	0.00778	1.4	05/16/2020 14:31	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00607	0.0389	1.4	05/16/2020 14:31	WG1477213
1,2-Dibromoethane	U		0.00101	0.00389	1.4	05/16/2020 14:31	WG1477213
Dibromomethane	U		0.00117	0.00778	1.4	05/16/2020 14:31	WG1477213
1,2-Dichlorobenzene	U		0.000661	0.00778	1.4	05/16/2020 14:31	WG1477213
1,3-Dichlorobenzene	U		0.000933	0.00778	1.4	05/16/2020 14:31	WG1477213
1,4-Dichlorobenzene	U		0.00109	0.00778	1.4	05/16/2020 14:31	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00250	0.00389	1.4	05/16/2020 14:31	WG1477213
1,1-Dichloroethane	U		0.000763	0.00389	1.4	05/16/2020 14:31	WG1477213
1,2-Dichloroethane	U		0.00101	0.00389	1.4	05/16/2020 14:31	WG1477213
1,1-Dichloroethene	U		0.000942	0.00389	1.4	05/16/2020 14:31	WG1477213
cis-1,2-Dichloroethene	U		0.00114	0.00389	1.4	05/16/2020 14:31	WG1477213
trans-1,2-Dichloroethene	U		0.00162	0.00778	1.4	05/16/2020 14:31	WG1477213
1,2-Dichloropropane	U		0.00221	0.00778	1.4	05/16/2020 14:31	WG1477213
1,1-Dichloropropene	U		0.00126	0.00389	1.4	05/16/2020 14:31	WG1477213
1,3-Dichloropropane	U		0.000779	0.00778	1.4	05/16/2020 14:31	WG1477213
cis-1,3-Dichloropropene	U		0.00118	0.00389	1.4	05/16/2020 14:31	WG1477213
trans-1,3-Dichloropropene	U		0.00178	0.00778	1.4	05/16/2020 14:31	WG1477213
2,2-Dichloropropane	U		0.00214	0.00389	1.4	05/16/2020 14:31	WG1477213
Di-isopropyl ether	U		0.000638	0.00156	1.4	05/16/2020 14:31	WG1477213
Ethylbenzene	U		0.00114	0.00389	1.4	05/16/2020 14:31	WG1477213
Hexachloro-1,3-butadiene	U		0.00933	0.0389	1.4	05/16/2020 14:31	WG1477213
Isopropylbenzene	U		0.000661	0.00389	1.4	05/16/2020 14:31	WG1477213
p-Isopropyltoluene	U		0.00397	0.00778	1.4	05/16/2020 14:31	WG1477213
2-Butanone (MEK)	U		0.0988	0.156	1.4	05/16/2020 14:31	WG1477213
Methylene Chloride	U		0.0103	0.0389	1.4	05/16/2020 14:31	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00354	0.0389	1.4	05/16/2020 14:31	WG1477213
Methyl tert-butyl ether	U		0.000544	0.00156	1.4	05/16/2020 14:31	WG1477213
Naphthalene	U		0.00759	0.0194	1.4	05/16/2020 14:31	WG1477213
n-Propylbenzene	U		0.00148	0.00778	1.4	05/16/2020 14:31	WG1477213
Styrene	U		0.000357	0.0194	1.4	05/16/2020 14:31	WG1477213
1,1,1,2-Tetrachloroethane	U		0.00148	0.00389	1.4	05/16/2020 14:31	WG1477213
1,1,2,2-Tetrachloroethane	U		0.00108	0.00389	1.4	05/16/2020 14:31	WG1477213
1,1,2-Trichlorotrifluoroethane	U		0.00118	0.00389	1.4	05/16/2020 14:31	WG1477213
Tetrachloroethene	U		0.00139	0.00389	1.4	05/16/2020 14:31	WG1477213
Toluene	U		0.00202	0.00778	1.4	05/16/2020 14:31	WG1477213
1,2,3-Trichlorobenzene	U		0.0114	0.0194	1.4	05/16/2020 14:31	WG1477213
1,2,4-Trichlorobenzene	U		0.00684	0.0194	1.4	05/16/2020 14:31	WG1477213
1,1,1-Trichloroethane	U		0.00143	0.00389	1.4	05/16/2020 14:31	WG1477213
1,1,2-Trichloroethane	U		0.000929	0.00389	1.4	05/16/2020 14:31	WG1477213
Trichloroethene	U		0.000909	0.00156	1.4	05/16/2020 14:31	WG1477213
Trichlorofluoromethane	U		0.00129	0.00389	1.4	05/16/2020 14:31	WG1477213
1,2,3-Trichloropropane	U		0.00252	0.0194	1.4	05/16/2020 14:31	WG1477213
1,2,4-Trimethylbenzene	0.00284	J	0.00246	0.00778	1.4	05/16/2020 14:31	WG1477213
1,2,3-Trimethylbenzene	U		0.00246	0.00778	1.4	05/16/2020 14:31	WG1477213
1,3,5-Trimethylbenzene	U		0.00311	0.00778	1.4	05/16/2020 14:31	WG1477213
Vinyl chloride	U		0.00180	0.00389	1.4	05/16/2020 14:31	WG1477213
Xylenes, Total	0.00370	J	0.00137	0.0101	1.4	05/16/2020 14:31	WG1477213
(S) Toluene-d8	*104*			*75.0-131*		*05/16/2020 14:31*	WG1477213
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*05/16/2020 14:31*	WG1477213
(S) 1,2-Dichloroethane-d4	*94.3*			*70.0-130*		*05/16/2020 14:31*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.814	4.44	1	05/19/2020 08:49	WG1477296
C22-C32 Hydrocarbons	U		1.48	4.44	1	05/19/2020 08:49	WG1477296
C32-C40 Hydrocarbons	U		1.48	4.44	1	05/19/2020 08:49	WG1477296
(S) o-Terphenyl	*95.7*			*18.0-148*		*05/19/2020 08:49*	WG1477296

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0131	0.0378	1	05/18/2020 12:39	WG1477089
PCB 1221	U		0.0131	0.0378	1	05/18/2020 12:39	WG1477089
PCB 1232	U		0.0131	0.0378	1	05/18/2020 12:39	WG1477089
PCB 1242	U		0.0131	0.0378	1	05/18/2020 12:39	WG1477089
PCB 1248	U		0.00820	0.0189	1	05/18/2020 12:39	WG1477089
PCB 1254	U		0.00820	0.0189	1	05/18/2020 12:39	WG1477089
PCB 1260	U		0.00820	0.0189	1	05/18/2020 12:39	WG1477089
(S) Decachlorobiphenyl	*75.9*			*10.0-135*		*05/18/2020 12:39*	WG1477089
(S) Tetrachloro-m-xylene	*93.1*			*10.0-139*		*05/18/2020 12:39*	WG1477089

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.4		1	05/19/2020 21:45	WG1478877

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0310	J	0.0199	0.0442	1	05/18/2020 09:16	WG1477233

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	0.695	J	0.553	2.21	1	05/16/2020 18:41	WG1477073
Arsenic	6.44		0.509	2.21	1	05/16/2020 18:41	WG1477073
Barium	237		0.265	0.553	1	05/16/2020 18:41	WG1477073
Beryllium	0.535		0.0885	0.221	1	05/16/2020 18:41	WG1477073
Cadmium	0.765		0.0896	0.553	1	05/16/2020 18:41	WG1477073
Chromium	54.1		0.276	1.11	1	05/16/2020 18:41	WG1477073
Cobalt	13.8		0.254	1.11	1	05/16/2020 18:41	WG1477073
Copper	31.5		0.560	2.21	1	05/16/2020 18:41	WG1477073
Lead	8.47		0.230	0.553	1	05/16/2020 18:41	WG1477073
Molybdenum	U		0.221	0.553	1	05/16/2020 18:41	WG1477073
Nickel	84.1		0.542	2.21	1	05/16/2020 18:41	WG1477073
Selenium	0.875	J	0.682	2.21	1	05/16/2020 18:41	WG1477073
Silver	U		0.252	1.11	1	05/16/2020 18:41	WG1477073
Thallium	U		0.391	2.21	1	05/16/2020 18:41	WG1477073
Vanadium	50.3		0.760	2.21	1	05/16/2020 18:41	WG1477073
Zinc	71.3		1.04	5.53	1	05/16/2020 18:41	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0404	0.0553	1	05/16/2020 14:52	WG1477213
Acrylonitrile	U		0.00399	0.0138	1	05/16/2020 14:52	WG1477213
Benzene	U		0.000516	0.00111	1	05/16/2020 14:52	WG1477213
Bromobenzene	U		0.000995	0.0138	1	05/16/2020 14:52	WG1477213
Bromodichloromethane	U		0.000802	0.00276	1	05/16/2020 14:52	WG1477213
Bromoform	U		0.00129	0.0276	1	05/16/2020 14:52	WG1477213
Bromomethane	U		0.00218	0.0138	1	05/16/2020 14:52	WG1477213
n-Butylbenzene	U		0.00581	0.0138	1	05/16/2020 14:52	WG1477213
sec-Butylbenzene	U		0.00318	0.0138	1	05/16/2020 14:52	WG1477213
tert-Butylbenzene	U		0.00216	0.00553	1	05/16/2020 14:52	WG1477213
Carbon tetrachloride	U		0.000993	0.00553	1	05/16/2020 14:52	WG1477213
Chlorobenzene	U		0.000232	0.00276	1	05/16/2020 14:52	WG1477213
Chlorodibromomethane	U		0.000677	0.00276	1	05/16/2020 14:52	WG1477213
Chloroethane	U		0.00188	0.00553	1	05/16/2020 14:52	WG1477213
Chloroform	U		0.00114	0.00276	1	05/16/2020 14:52	WG1477213
Chloromethane	U		0.00481	0.0138	1	05/16/2020 14:52	WG1477213
2-Chlorotoluene	U		0.000956	0.00276	1	05/16/2020 14:52	WG1477213
4-Chlorotoluene	U		0.000498	0.00553	1	05/16/2020 14:52	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00431	0.0276	1	05/16/2020 14:52	WG1477213
1,2-Dibromoethane	U		0.000717	0.00276	1	05/16/2020 14:52	WG1477213
Dibromomethane	U		0.000829	0.00553	1	05/16/2020 14:52	WG1477213
1,2-Dichlorobenzene	U		0.000470	0.00553	1	05/16/2020 14:52	WG1477213
1,3-Dichlorobenzene	U		0.000663	0.00553	1	05/16/2020 14:52	WG1477213
1,4-Dichlorobenzene	U		0.000774	0.00553	1	05/16/2020 14:52	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00178	0.00276	1	05/16/2020 14:52	WG1477213
1,1-Dichloroethane	U		0.000543	0.00276	1	05/16/2020 14:52	WG1477213
1,2-Dichloroethane	U		0.000718	0.00276	1	05/16/2020 14:52	WG1477213
1,1-Dichloroethene	U		0.000670	0.00276	1	05/16/2020 14:52	WG1477213
cis-1,2-Dichloroethene	U		0.000812	0.00276	1	05/16/2020 14:52	WG1477213
trans-1,2-Dichloroethene	U		0.00115	0.00553	1	05/16/2020 14:52	WG1477213
1,2-Dichloropropane	U		0.00157	0.00553	1	05/16/2020 14:52	WG1477213
1,1-Dichloropropene	U		0.000895	0.00276	1	05/16/2020 14:52	WG1477213
1,3-Dichloropropane	U		0.000554	0.00553	1	05/16/2020 14:52	WG1477213
cis-1,3-Dichloropropene	U		0.000837	0.00276	1	05/16/2020 14:52	WG1477213
trans-1,3-Dichloropropene	U		0.00126	0.00553	1	05/16/2020 14:52	WG1477213
2,2-Dichloropropane	U		0.00153	0.00276	1	05/16/2020 14:52	WG1477213
Di-isopropyl ether	U		0.000453	0.00111	1	05/16/2020 14:52	WG1477213
Ethylbenzene	U		0.000815	0.00276	1	05/16/2020 14:52	WG1477213
Hexachloro-1,3-butadiene	U		0.00663	0.0276	1	05/16/2020 14:52	WG1477213
Isopropylbenzene	U		0.000470	0.00276	1	05/16/2020 14:52	WG1477213
p-Isopropyltoluene	U		0.00282	0.00553	1	05/16/2020 14:52	WG1477213
2-Butanone (MEK)	U		0.0702	0.111	1	05/16/2020 14:52	WG1477213
Methylene Chloride	U		0.00734	0.0276	1	05/16/2020 14:52	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00252	0.0276	1	05/16/2020 14:52	WG1477213
Methyl tert-butyl ether	U		0.000387	0.00111	1	05/16/2020 14:52	WG1477213
Naphthalene	U		0.00540	0.0138	1	05/16/2020 14:52	WG1477213
n-Propylbenzene	U		0.00105	0.00553	1	05/16/2020 14:52	WG1477213
Styrene	U		0.000253	0.0138	1	05/16/2020 14:52	WG1477213
1,1,1,2-Tetrachloroethane	U		0.00105	0.00276	1	05/16/2020 14:52	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000768	0.00276	1	05/16/2020 14:52	WG1477213
1,1,2-Trichlorotrifluoroethane	U		0.000834	0.00276	1	05/16/2020 14:52	WG1477213
Tetrachloroethene	U		0.000991	0.00276	1	05/16/2020 14:52	WG1477213
Toluene	U		0.00144	0.00553	1	05/16/2020 14:52	WG1477213
1,2,3-Trichlorobenzene	U		0.00811	0.0138	1	05/16/2020 14:52	WG1477213
1,2,4-Trichlorobenzene	U		0.00487	0.0138	1	05/16/2020 14:52	WG1477213
1,1,1-Trichloroethane	U		0.00102	0.00276	1	05/16/2020 14:52	WG1477213
1,1,2-Trichloroethane	U		0.000660	0.00276	1	05/16/2020 14:52	WG1477213
Trichloroethene	0.00139		0.000646	0.00111	1	05/16/2020 14:52	WG1477213
Trichlorofluoromethane	U		0.000914	0.00276	1	05/16/2020 14:52	WG1477213
1,2,3-Trichloropropane	U		0.00179	0.0138	1	05/16/2020 14:52	WG1477213
1,2,4-Trimethylbenzene	U		0.00175	0.00553	1	05/16/2020 14:52	WG1477213
1,2,3-Trimethylbenzene	U		0.00175	0.00553	1	05/16/2020 14:52	WG1477213
1,3,5-Trimethylbenzene	U		0.00221	0.00553	1	05/16/2020 14:52	WG1477213
Vinyl chloride	U		0.00128	0.00276	1	05/16/2020 14:52	WG1477213
Xylenes, Total	U		0.000973	0.00719	1	05/16/2020 14:52	WG1477213
(S) Toluene-d8	*102*			*75.0-131*		*05/16/2020 14:52*	WG1477213
(S) 4-Bromofluorobenzene	*98.5*			*67.0-138*		*05/16/2020 14:52*	WG1477213
(S) 1,2-Dichloroethane-d4	*96.3*			*70.0-130*		*05/16/2020 14:52*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.811	4.42	1	05/19/2020 09:04	WG1477296
C22-C32 Hydrocarbons	U		1.47	4.42	1	05/19/2020 09:04	WG1477296
C32-C40 Hydrocarbons	U		1.47	4.42	1	05/19/2020 09:04	WG1477296
(S) o-Terphenyl	*97.9*			*18.0-148*		*05/19/2020 09:04*	WG1477296

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.8		1	05/19/2020 21:45	WG1478877

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0398	0.0545	1	05/16/2020 15:12	WG1477213
Acrylonitrile	U		0.00393	0.0136	1	05/16/2020 15:12	WG1477213
Benzene	U		0.000509	0.00109	1	05/16/2020 15:12	WG1477213
Bromobenzene	U		0.000981	0.0136	1	05/16/2020 15:12	WG1477213
Bromodichloromethane	U		0.000790	0.00272	1	05/16/2020 15:12	WG1477213
Bromoform	U		0.00127	0.0272	1	05/16/2020 15:12	WG1477213
Bromomethane	U		0.00215	0.0136	1	05/16/2020 15:12	WG1477213
n-Butylbenzene	U		0.00572	0.0136	1	05/16/2020 15:12	WG1477213
sec-Butylbenzene	U		0.00314	0.0136	1	05/16/2020 15:12	WG1477213
tert-Butylbenzene	U		0.00212	0.00545	1	05/16/2020 15:12	WG1477213
Carbon tetrachloride	U		0.000979	0.00545	1	05/16/2020 15:12	WG1477213
Chlorobenzene	U		0.000229	0.00272	1	05/16/2020 15:12	WG1477213
Chlorodibromomethane	U		0.000667	0.00272	1	05/16/2020 15:12	WG1477213
Chloroethane	U		0.00185	0.00545	1	05/16/2020 15:12	WG1477213
Chloroform	U		0.00112	0.00272	1	05/16/2020 15:12	WG1477213
Chloromethane	U		0.00474	0.0136	1	05/16/2020 15:12	WG1477213
2-Chlorotoluene	U		0.000943	0.00272	1	05/16/2020 15:12	WG1477213
4-Chlorotoluene	U		0.000490	0.00545	1	05/16/2020 15:12	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00425	0.0272	1	05/16/2020 15:12	WG1477213
1,2-Dibromoethane	U		0.000706	0.00272	1	05/16/2020 15:12	WG1477213
Dibromomethane	U		0.000817	0.00545	1	05/16/2020 15:12	WG1477213
1,2-Dichlorobenzene	U		0.000463	0.00545	1	05/16/2020 15:12	WG1477213
1,3-Dichlorobenzene	U		0.000654	0.00545	1	05/16/2020 15:12	WG1477213
1,4-Dichlorobenzene	U		0.000763	0.00545	1	05/16/2020 15:12	WG1477213
Dichlorodifluoromethane	U		0.00175	0.00272	1	05/16/2020 15:12	WG1477213
1,1-Dichloroethane	U		0.000535	0.00272	1	05/16/2020 15:12	WG1477213
1,2-Dichloroethane	U		0.000707	0.00272	1	05/16/2020 15:12	WG1477213
1,1-Dichloroethene	U		0.000660	0.00272	1	05/16/2020 15:12	WG1477213
cis-1,2-Dichloroethene	U		0.000800	0.00272	1	05/16/2020 15:12	WG1477213
trans-1,2-Dichloroethene	U		0.00113	0.00545	1	05/16/2020 15:12	WG1477213
1,2-Dichloropropane	U		0.00155	0.00545	1	05/16/2020 15:12	WG1477213
1,1-Dichloropropene	U		0.000882	0.00272	1	05/16/2020 15:12	WG1477213
1,3-Dichloropropane	U		0.000546	0.00545	1	05/16/2020 15:12	WG1477213
cis-1,3-Dichloropropene	U		0.000825	0.00272	1	05/16/2020 15:12	WG1477213
trans-1,3-Dichloropropene	U		0.00124	0.00545	1	05/16/2020 15:12	WG1477213
2,2-Dichloropropane	U		0.00150	0.00272	1	05/16/2020 15:12	WG1477213
Di-isopropyl ether	U		0.000447	0.00109	1	05/16/2020 15:12	WG1477213
Ethylbenzene	U		0.000803	0.00272	1	05/16/2020 15:12	WG1477213
Hexachloro-1,3-butadiene	U		0.00654	0.0272	1	05/16/2020 15:12	WG1477213
Isopropylbenzene	U		0.000463	0.00272	1	05/16/2020 15:12	WG1477213
p-Isopropyltoluene	U		0.00278	0.00545	1	05/16/2020 15:12	WG1477213
2-Butanone (MEK)	U		0.0692	0.109	1	05/16/2020 15:12	WG1477213
Methylene Chloride	U		0.00724	0.0272	1	05/16/2020 15:12	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00248	0.0272	1	05/16/2020 15:12	WG1477213
Methyl tert-butyl ether	U		0.000381	0.00109	1	05/16/2020 15:12	WG1477213
Naphthalene	U		0.00532	0.0136	1	05/16/2020 15:12	WG1477213
n-Propylbenzene	U		0.00104	0.00545	1	05/16/2020 15:12	WG1477213
Styrene	U		0.000250	0.0136	1	05/16/2020 15:12	WG1477213
1,1,1,2-Tetrachloroethane	U		0.00103	0.00272	1	05/16/2020 15:12	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000757	0.00272	1	05/16/2020 15:12	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000822	0.00272	1	05/16/2020 15:12	WG1477213
Tetrachloroethene	U		0.000976	0.00272	1	05/16/2020 15:12	WG1477213
Toluene	0.00198	J	0.00142	0.00545	1	05/16/2020 15:12	WG1477213
1,2,3-Trichlorobenzene	U		0.00799	0.0136	1	05/16/2020 15:12	WG1477213
1,2,4-Trichlorobenzene	0.0145		0.00479	0.0136	1	05/16/2020 15:12	WG1477213
1,1,1-Trichloroethane	U		0.00101	0.00272	1	05/16/2020 15:12	WG1477213
1,1,2-Trichloroethane	U		0.000651	0.00272	1	05/16/2020 15:12	WG1477213
Trichloroethene	0.00962		0.000636	0.00109	1	05/16/2020 15:12	WG1477213
Trichlorofluoromethane	U		0.000901	0.00272	1	05/16/2020 15:12	WG1477213
1,2,3-Trichloropropane	U		0.00177	0.0136	1	05/16/2020 15:12	WG1477213
1,2,4-Trimethylbenzene	U		0.00172	0.00545	1	05/16/2020 15:12	WG1477213
1,2,3-Trimethylbenzene	U		0.00172	0.00545	1	05/16/2020 15:12	WG1477213
1,3,5-Trimethylbenzene	U		0.00218	0.00545	1	05/16/2020 15:12	WG1477213
Vinyl chloride	U		0.00126	0.00272	1	05/16/2020 15:12	WG1477213
Xylenes, Total	0.00103	J	0.000959	0.00708	1	05/16/2020 15:12	WG1477213
(S) Toluene-d8	*105*			*75.0-131*		*05/16/2020 15:12*	WG1477213
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*05/16/2020 15:12*	WG1477213
(S) 1,2-Dichloroethane-d4	*95.0*			*70.0-130*		*05/16/2020 15:12*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.799	4.36	1	05/19/2020 09:19	WG1477296
C22-C32 Hydrocarbons	U		1.45	4.36	1	05/19/2020 09:19	WG1477296
C32-C40 Hydrocarbons	U		1.45	4.36	1	05/19/2020 09:19	WG1477296
(S) o-Terphenyl	*104*			*18.0-148*		*05/19/2020 09:19*	WG1477296

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.5		1	05/19/2020 21:45	WG1478877

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0394	0.0540	1	05/16/2020 15:32	WG1477213
Acrylonitrile	U		0.00390	0.0135	1	05/16/2020 15:32	WG1477213
Benzene	U		0.000505	0.00108	1	05/16/2020 15:32	WG1477213
Bromobenzene	U		0.000973	0.0135	1	05/16/2020 15:32	WG1477213
Bromodichloromethane	U		0.000784	0.00270	1	05/16/2020 15:32	WG1477213
Bromoform	U		0.00126	0.0270	1	05/16/2020 15:32	WG1477213
Bromomethane	U		0.00213	0.0135	1	05/16/2020 15:32	WG1477213
n-Butylbenzene	U		0.00567	0.0135	1	05/16/2020 15:32	WG1477213
sec-Butylbenzene	U		0.00311	0.0135	1	05/16/2020 15:32	WG1477213
tert-Butylbenzene	U		0.00211	0.00540	1	05/16/2020 15:32	WG1477213
Carbon tetrachloride	U		0.000971	0.00540	1	05/16/2020 15:32	WG1477213
Chlorobenzene	U		0.000227	0.00270	1	05/16/2020 15:32	WG1477213
Chlorodibromomethane	U		0.000661	0.00270	1	05/16/2020 15:32	WG1477213
Chloroethane	U		0.00184	0.00540	1	05/16/2020 15:32	WG1477213
Chloroform	0.00239	J	0.00111	0.00270	1	05/16/2020 15:32	WG1477213
Chloromethane	U		0.00470	0.0135	1	05/16/2020 15:32	WG1477213
2-Chlorotoluene	U		0.000935	0.00270	1	05/16/2020 15:32	WG1477213
4-Chlorotoluene	U		0.000486	0.00540	1	05/16/2020 15:32	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00422	0.0270	1	05/16/2020 15:32	WG1477213
1,2-Dibromoethane	U		0.000700	0.00270	1	05/16/2020 15:32	WG1477213
Dibromomethane	U		0.000811	0.00540	1	05/16/2020 15:32	WG1477213
1,2-Dichlorobenzene	U		0.000459	0.00540	1	05/16/2020 15:32	WG1477213
1,3-Dichlorobenzene	U		0.000648	0.00540	1	05/16/2020 15:32	WG1477213
1,4-Dichlorobenzene	U		0.000757	0.00540	1	05/16/2020 15:32	WG1477213
Dichlorodifluoromethane	U		0.00174	0.00270	1	05/16/2020 15:32	WG1477213
1,1-Dichloroethane	U		0.000531	0.00270	1	05/16/2020 15:32	WG1477213
1,2-Dichloroethane	U		0.000701	0.00270	1	05/16/2020 15:32	WG1477213
1,1-Dichloroethene	U		0.000655	0.00270	1	05/16/2020 15:32	WG1477213
cis-1,2-Dichloroethene	U		0.000793	0.00270	1	05/16/2020 15:32	WG1477213
trans-1,2-Dichloroethene	U		0.00112	0.00540	1	05/16/2020 15:32	WG1477213
1,2-Dichloropropane	U		0.00153	0.00540	1	05/16/2020 15:32	WG1477213
1,1-Dichloropropene	U		0.000874	0.00270	1	05/16/2020 15:32	WG1477213
1,3-Dichloropropane	U		0.000541	0.00540	1	05/16/2020 15:32	WG1477213
cis-1,3-Dichloropropene	U		0.000818	0.00270	1	05/16/2020 15:32	WG1477213
trans-1,3-Dichloropropene	U		0.00123	0.00540	1	05/16/2020 15:32	WG1477213
2,2-Dichloropropane	U		0.00149	0.00270	1	05/16/2020 15:32	WG1477213
Di-isopropyl ether	U		0.000443	0.00108	1	05/16/2020 15:32	WG1477213
Ethylbenzene	0.000803	J	0.000797	0.00270	1	05/16/2020 15:32	WG1477213
Hexachloro-1,3-butadiene	U		0.00648	0.0270	1	05/16/2020 15:32	WG1477213
Isopropylbenzene	U		0.000459	0.00270	1	05/16/2020 15:32	WG1477213
p-Isopropyltoluene	U		0.00276	0.00540	1	05/16/2020 15:32	WG1477213
2-Butanone (MEK)	U		0.0686	0.108	1	05/16/2020 15:32	WG1477213
Methylene Chloride	U		0.00718	0.0270	1	05/16/2020 15:32	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00246	0.0270	1	05/16/2020 15:32	WG1477213
Methyl tert-butyl ether	U		0.000378	0.00108	1	05/16/2020 15:32	WG1477213
Naphthalene	U		0.00527	0.0135	1	05/16/2020 15:32	WG1477213
n-Propylbenzene	U		0.00103	0.00540	1	05/16/2020 15:32	WG1477213
Styrene	U		0.000248	0.0135	1	05/16/2020 15:32	WG1477213
1,1,1,2-Tetrachloroethane	U		0.00102	0.00270	1	05/16/2020 15:32	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000751	0.00270	1	05/16/2020 15:32	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000815	0.00270	1	05/16/2020 15:32	WG1477213
Tetrachloroethene	U		0.000968	0.00270	1	05/16/2020 15:32	WG1477213
Toluene	0.00242	J	0.00141	0.00540	1	05/16/2020 15:32	WG1477213
1,2,3-Trichlorobenzene	U		0.00792	0.0135	1	05/16/2020 15:32	WG1477213
1,2,4-Trichlorobenzene	0.00972	J	0.00476	0.0135	1	05/16/2020 15:32	WG1477213
1,1,1-Trichloroethane	U		0.000998	0.00270	1	05/16/2020 15:32	WG1477213
1,1,2-Trichloroethane	U		0.000645	0.00270	1	05/16/2020 15:32	WG1477213
Trichloroethene	0.0289		0.000631	0.00108	1	05/16/2020 15:32	WG1477213
Trichlorofluoromethane	U		0.000894	0.00270	1	05/16/2020 15:32	WG1477213
1,2,3-Trichloropropane	U		0.00175	0.0135	1	05/16/2020 15:32	WG1477213
1,2,4-Trimethylbenzene	U		0.00171	0.00540	1	05/16/2020 15:32	WG1477213
1,2,3-Trimethylbenzene	U		0.00171	0.00540	1	05/16/2020 15:32	WG1477213
1,3,5-Trimethylbenzene	U		0.00216	0.00540	1	05/16/2020 15:32	WG1477213
Vinyl chloride	U		0.00125	0.00270	1	05/16/2020 15:32	WG1477213
Xylenes, Total	0.00203	J	0.000951	0.00703	1	05/16/2020 15:32	WG1477213
(S) Toluene-d8	*102*			*75.0-131*		*05/16/2020 15:32*	WG1477213
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*05/16/2020 15:32*	WG1477213
(S) 1,2-Dichloroethane-d4	*96.4*			*70.0-130*		*05/16/2020 15:32*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.792	4.32	1	05/19/2020 09:33	WG1477296
C22-C32 Hydrocarbons	U		1.44	4.32	1	05/19/2020 09:33	WG1477296
C32-C40 Hydrocarbons	U		1.44	4.32	1	05/19/2020 09:33	WG1477296
(S) o-Terphenyl	*112*			*18.0-148*		*05/19/2020 09:33*	WG1477296

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.4		1	05/19/2020 21:45	WG1478877

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0403	J	0.0193	0.0428	1	05/18/2020 09:19	WG1477233

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	1.56	J J6	0.535	2.14	1	05/16/2020 18:08	WG1477073
Arsenic	5.24		0.493	2.14	1	05/16/2020 18:08	WG1477073
Barium	181		0.257	0.535	1	05/16/2020 18:08	WG1477073
Beryllium	0.402		0.0857	0.214	1	05/16/2020 18:08	WG1477073
Cadmium	0.622		0.0867	0.535	1	05/16/2020 18:08	WG1477073
Chromium	51.2		0.268	1.07	1	05/16/2020 18:08	WG1477073
Cobalt	9.40		0.246	1.07	1	05/16/2020 18:08	WG1477073
Copper	25.5		0.542	2.14	1	05/16/2020 18:08	WG1477073
Lead	5.05		0.223	0.535	1	05/16/2020 18:08	WG1477073
Molybdenum	U		0.214	0.535	1	05/16/2020 18:08	WG1477073
Nickel	74.6		0.525	2.14	1	05/16/2020 18:08	WG1477073
Selenium	1.34	J	0.661	2.14	1	05/16/2020 18:08	WG1477073
Silver	U		0.244	1.07	1	05/16/2020 18:08	WG1477073
Thallium	U		0.379	2.14	1	05/16/2020 18:08	WG1477073
Vanadium	61.4		0.736	2.14	1	05/16/2020 18:08	WG1477073
Zinc	54.9		1.01	5.35	1	05/16/2020 18:08	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0391	0.0535	1	05/16/2020 15:53	WG1477213
Acrylonitrile	U		0.00387	0.0134	1	05/16/2020 15:53	WG1477213
Benzene	U		0.000500	0.00107	1	05/16/2020 15:53	WG1477213
Bromobenzene	U		0.000964	0.0134	1	05/16/2020 15:53	WG1477213
Bromodichloromethane	U		0.000776	0.00268	1	05/16/2020 15:53	WG1477213
Bromoform	U		0.00125	0.0268	1	05/16/2020 15:53	WG1477213
Bromomethane	U		0.00211	0.0134	1	05/16/2020 15:53	WG1477213
n-Butylbenzene	U		0.00562	0.0134	1	05/16/2020 15:53	WG1477213
sec-Butylbenzene	U		0.00308	0.0134	1	05/16/2020 15:53	WG1477213
tert-Butylbenzene	U		0.00209	0.00535	1	05/16/2020 15:53	WG1477213
Carbon tetrachloride	U		0.000962	0.00535	1	05/16/2020 15:53	WG1477213
Chlorobenzene	U		0.000225	0.00268	1	05/16/2020 15:53	WG1477213
Chlorodibromomethane	U		0.000655	0.00268	1	05/16/2020 15:53	WG1477213
Chloroethane	U		0.00182	0.00535	1	05/16/2020 15:53	WG1477213
Chloroform	U		0.00110	0.00268	1	05/16/2020 15:53	WG1477213
Chloromethane	U		0.00466	0.0134	1	05/16/2020 15:53	WG1477213
2-Chlorotoluene	U		0.000926	0.00268	1	05/16/2020 15:53	WG1477213
4-Chlorotoluene	U		0.000482	0.00535	1	05/16/2020 15:53	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00418	0.0268	1	05/16/2020 15:53	WG1477213
1,2-Dibromoethane	U		0.000694	0.00268	1	05/16/2020 15:53	WG1477213
Dibromomethane	U		0.000803	0.00535	1	05/16/2020 15:53	WG1477213
1,2-Dichlorobenzene	U		0.000455	0.00535	1	05/16/2020 15:53	WG1477213
1,3-Dichlorobenzene	U		0.000642	0.00535	1	05/16/2020 15:53	WG1477213
1,4-Dichlorobenzene	U		0.000750	0.00535	1	05/16/2020 15:53	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00172	0.00268	1	05/16/2020 15:53	WG1477213
1,1-Dichloroethane	U		0.000526	0.00268	1	05/16/2020 15:53	WG1477213
1,2-Dichloroethane	U		0.000695	0.00268	1	05/16/2020 15:53	WG1477213
1,1-Dichloroethene	U		0.000649	0.00268	1	05/16/2020 15:53	WG1477213
cis-1,2-Dichloroethene	U		0.000786	0.00268	1	05/16/2020 15:53	WG1477213
trans-1,2-Dichloroethene	U		0.00111	0.00535	1	05/16/2020 15:53	WG1477213
1,2-Dichloropropane	U		0.00152	0.00535	1	05/16/2020 15:53	WG1477213
1,1-Dichloropropene	U		0.000866	0.00268	1	05/16/2020 15:53	WG1477213
1,3-Dichloropropane	U		0.000536	0.00535	1	05/16/2020 15:53	WG1477213
cis-1,3-Dichloropropene	U		0.000811	0.00268	1	05/16/2020 15:53	WG1477213
trans-1,3-Dichloropropene	U		0.00122	0.00535	1	05/16/2020 15:53	WG1477213
2,2-Dichloropropane	U		0.00148	0.00268	1	05/16/2020 15:53	WG1477213
Di-isopropyl ether	U		0.000439	0.00107	1	05/16/2020 15:53	WG1477213
Ethylbenzene	U		0.000789	0.00268	1	05/16/2020 15:53	WG1477213
Hexachloro-1,3-butadiene	U		0.00642	0.0268	1	05/16/2020 15:53	WG1477213
Isopropylbenzene	U		0.000455	0.00268	1	05/16/2020 15:53	WG1477213
p-Isopropyltoluene	U		0.00273	0.00535	1	05/16/2020 15:53	WG1477213
2-Butanone (MEK)	U		0.0680	0.107	1	05/16/2020 15:53	WG1477213
Methylene Chloride	U		0.00711	0.0268	1	05/16/2020 15:53	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00244	0.0268	1	05/16/2020 15:53	WG1477213
Methyl tert-butyl ether	U		0.000375	0.00107	1	05/16/2020 15:53	WG1477213
Naphthalene	U		0.00523	0.0134	1	05/16/2020 15:53	WG1477213
n-Propylbenzene	U		0.00102	0.00535	1	05/16/2020 15:53	WG1477213
Styrene	U		0.000245	0.0134	1	05/16/2020 15:53	WG1477213
1,1,1,2-Tetrachloroethane	U		0.00102	0.00268	1	05/16/2020 15:53	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000744	0.00268	1	05/16/2020 15:53	WG1477213
1,1,2-Trichlorotrifluoroethane	U		0.000807	0.00268	1	05/16/2020 15:53	WG1477213
Tetrachloroethene	U		0.000959	0.00268	1	05/16/2020 15:53	WG1477213
Toluene	0.00188	J	0.00139	0.00535	1	05/16/2020 15:53	WG1477213
1,2,3-Trichlorobenzene	U		0.00785	0.0134	1	05/16/2020 15:53	WG1477213
1,2,4-Trichlorobenzene	U		0.00471	0.0134	1	05/16/2020 15:53	WG1477213
1,1,1-Trichloroethane	U		0.000988	0.00268	1	05/16/2020 15:53	WG1477213
1,1,2-Trichloroethane	U		0.000639	0.00268	1	05/16/2020 15:53	WG1477213
Trichloroethene	U		0.000625	0.00107	1	05/16/2020 15:53	WG1477213
Trichlorofluoromethane	U		0.000886	0.00268	1	05/16/2020 15:53	WG1477213
1,2,3-Trichloropropane	U		0.00173	0.0134	1	05/16/2020 15:53	WG1477213
1,2,4-Trimethylbenzene	U		0.00169	0.00535	1	05/16/2020 15:53	WG1477213
1,2,3-Trimethylbenzene	U		0.00169	0.00535	1	05/16/2020 15:53	WG1477213
1,3,5-Trimethylbenzene	U		0.00214	0.00535	1	05/16/2020 15:53	WG1477213
Vinyl chloride	U		0.00124	0.00268	1	05/16/2020 15:53	WG1477213
Xylenes, Total	U		0.000942	0.00696	1	05/16/2020 15:53	WG1477213
(S) Toluene-d8	*102*			*75.0-131*		*05/16/2020 15:53*	WG1477213
(S) 4-Bromofluorobenzene	*96.8*			*67.0-138*		*05/16/2020 15:53*	WG1477213
(S) 1,2-Dichloroethane-d4	*93.5*			*70.0-130*		*05/16/2020 15:53*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.785	4.28	1	05/19/2020 09:48	WG1477296
C22-C32 Hydrocarbons	U		1.42	4.28	1	05/19/2020 09:48	WG1477296
C32-C40 Hydrocarbons	U		1.42	4.28	1	05/19/2020 09:48	WG1477296
(S) o-Terphenyl	*88.7*			*18.0-148*		*05/19/2020 09:48*	WG1477296

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0126	0.0364	1	05/18/2020 12:54	WG1477089
PCB 1221	U		0.0126	0.0364	1	05/18/2020 12:54	WG1477089
PCB 1232	U		0.0126	0.0364	1	05/18/2020 12:54	WG1477089
PCB 1242	U		0.0126	0.0364	1	05/18/2020 12:54	WG1477089
PCB 1248	U		0.00790	0.0182	1	05/18/2020 12:54	WG1477089
PCB 1254	U		0.00790	0.0182	1	05/18/2020 12:54	WG1477089
PCB 1260	U		0.00790	0.0182	1	05/18/2020 12:54	WG1477089
(S) Decachlorobiphenyl	*70.4*			*10.0-135*		*05/18/2020 12:54*	WG1477089
(S) Tetrachloro-m-xylene	*81.8*			*10.0-139*		*05/18/2020 12:54*	WG1477089

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.3		1	05/19/2020 21:53	WG1478933

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.121		0.0197	0.0438	1	05/18/2020 09:21	WG1477233

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	0.668	J	0.548	2.19	1	05/16/2020 18:44	WG1477073
Arsenic	7.80		0.504	2.19	1	05/16/2020 18:44	WG1477073
Barium	195		0.263	0.548	1	05/16/2020 18:44	WG1477073
Beryllium	0.554		0.0876	0.219	1	05/16/2020 18:44	WG1477073
Cadmium	0.837		0.0887	0.548	1	05/16/2020 18:44	WG1477073
Chromium	58.2		0.274	1.10	1	05/16/2020 18:44	WG1477073
Cobalt	11.4		0.252	1.10	1	05/16/2020 18:44	WG1477073
Copper	51.0		0.554	2.19	1	05/16/2020 18:44	WG1477073
Lead	8.92		0.228	0.548	1	05/16/2020 18:44	WG1477073
Molybdenum	U		0.219	0.548	1	05/16/2020 18:44	WG1477073
Nickel	85.4		0.537	2.19	1	05/16/2020 18:44	WG1477073
Selenium	0.801	J	0.676	2.19	1	05/16/2020 18:44	WG1477073
Silver	U		0.250	1.10	1	05/16/2020 18:44	WG1477073
Thallium	U		0.388	2.19	1	05/16/2020 18:44	WG1477073
Vanadium	52.9		0.752	2.19	1	05/16/2020 18:44	WG1477073
Zinc	72.8		1.03	5.48	1	05/16/2020 18:44	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0400	0.0548	1	05/16/2020 16:13	WG1477213
Acrylonitrile	U		0.00395	0.0137	1	05/16/2020 16:13	WG1477213
Benzene	0.00526		0.000511	0.00110	1	05/16/2020 16:13	WG1477213
Bromobenzene	U		0.000986	0.0137	1	05/16/2020 16:13	WG1477213
Bromodichloromethane	U		0.000794	0.00274	1	05/16/2020 16:13	WG1477213
Bromoform	U		0.00128	0.0274	1	05/16/2020 16:13	WG1477213
Bromomethane	U		0.00216	0.0137	1	05/16/2020 16:13	WG1477213
n-Butylbenzene	U		0.00575	0.0137	1	05/16/2020 16:13	WG1477213
sec-Butylbenzene	U		0.00315	0.0137	1	05/16/2020 16:13	WG1477213
tert-Butylbenzene	U		0.00214	0.00548	1	05/16/2020 16:13	WG1477213
Carbon tetrachloride	U		0.000983	0.00548	1	05/16/2020 16:13	WG1477213
Chlorobenzene	U		0.000230	0.00274	1	05/16/2020 16:13	WG1477213
Chlorodibromomethane	U		0.000670	0.00274	1	05/16/2020 16:13	WG1477213
Chloroethane	U		0.00186	0.00548	1	05/16/2020 16:13	WG1477213
Chloroform	U		0.00113	0.00274	1	05/16/2020 16:13	WG1477213
Chloromethane	U		0.00476	0.0137	1	05/16/2020 16:13	WG1477213
2-Chlorotoluene	U		0.000947	0.00274	1	05/16/2020 16:13	WG1477213
4-Chlorotoluene	U		0.000493	0.00548	1	05/16/2020 16:13	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00427	0.0274	1	05/16/2020 16:13	WG1477213
1,2-Dibromoethane	U		0.000710	0.00274	1	05/16/2020 16:13	WG1477213
Dibromomethane	U		0.000821	0.00548	1	05/16/2020 16:13	WG1477213
1,2-Dichlorobenzene	U		0.000465	0.00548	1	05/16/2020 16:13	WG1477213
1,3-Dichlorobenzene	U		0.000657	0.00548	1	05/16/2020 16:13	WG1477213
1,4-Dichlorobenzene	U		0.000767	0.00548	1	05/16/2020 16:13	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00176	0.00274	1	05/16/2020 16:13	WG1477213
1,1-Dichloroethane	U		0.000538	0.00274	1	05/16/2020 16:13	WG1477213
1,2-Dichloroethane	U		0.000711	0.00274	1	05/16/2020 16:13	WG1477213
1,1-Dichloroethene	U		0.000664	0.00274	1	05/16/2020 16:13	WG1477213
cis-1,2-Dichloroethene	U		0.000804	0.00274	1	05/16/2020 16:13	WG1477213
trans-1,2-Dichloroethene	U		0.00114	0.00548	1	05/16/2020 16:13	WG1477213
1,2-Dichloropropane	U		0.00156	0.00548	1	05/16/2020 16:13	WG1477213
1,1-Dichloropropene	U		0.000886	0.00274	1	05/16/2020 16:13	WG1477213
1,3-Dichloropropane	U		0.000549	0.00548	1	05/16/2020 16:13	WG1477213
cis-1,3-Dichloropropene	U		0.000829	0.00274	1	05/16/2020 16:13	WG1477213
trans-1,3-Dichloropropene	U		0.00125	0.00548	1	05/16/2020 16:13	WG1477213
2,2-Dichloropropane	U		0.00151	0.00274	1	05/16/2020 16:13	WG1477213
Di-isopropyl ether	U		0.000449	0.00110	1	05/16/2020 16:13	WG1477213
Ethylbenzene	0.00199	J	0.000807	0.00274	1	05/16/2020 16:13	WG1477213
Hexachloro-1,3-butadiene	U		0.00657	0.0274	1	05/16/2020 16:13	WG1477213
Isopropylbenzene	U		0.000465	0.00274	1	05/16/2020 16:13	WG1477213
p-Isopropyltoluene	U		0.00279	0.00548	1	05/16/2020 16:13	WG1477213
2-Butanone (MEK)	U		0.0695	0.110	1	05/16/2020 16:13	WG1477213
Methylene Chloride	U		0.00727	0.0274	1	05/16/2020 16:13	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00250	0.0274	1	05/16/2020 16:13	WG1477213
Methyl tert-butyl ether	U		0.000383	0.00110	1	05/16/2020 16:13	WG1477213
Naphthalene	U		0.00534	0.0137	1	05/16/2020 16:13	WG1477213
n-Propylbenzene	U		0.00104	0.00548	1	05/16/2020 16:13	WG1477213
Styrene	U		0.000251	0.0137	1	05/16/2020 16:13	WG1477213
1,1,1,2-Tetrachloroethane	U		0.00104	0.00274	1	05/16/2020 16:13	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000761	0.00274	1	05/16/2020 16:13	WG1477213
1,1,2-Trichlorotrifluoroethane	U		0.000826	0.00274	1	05/16/2020 16:13	WG1477213
Tetrachloroethene	U		0.000981	0.00274	1	05/16/2020 16:13	WG1477213
Toluene	0.0181		0.00142	0.00548	1	05/16/2020 16:13	WG1477213
1,2,3-Trichlorobenzene	U		0.00803	0.0137	1	05/16/2020 16:13	WG1477213
1,2,4-Trichlorobenzene	U		0.00482	0.0137	1	05/16/2020 16:13	WG1477213
1,1,1-Trichloroethane	U		0.00101	0.00274	1	05/16/2020 16:13	WG1477213
1,1,2-Trichloroethane	U		0.000654	0.00274	1	05/16/2020 16:13	WG1477213
Trichloroethene	U		0.000640	0.00110	1	05/16/2020 16:13	WG1477213
Trichlorofluoromethane	U		0.000906	0.00274	1	05/16/2020 16:13	WG1477213
1,2,3-Trichloropropane	U		0.00177	0.0137	1	05/16/2020 16:13	WG1477213
1,2,4-Trimethylbenzene	U		0.00173	0.00548	1	05/16/2020 16:13	WG1477213
1,2,3-Trimethylbenzene	U		0.00173	0.00548	1	05/16/2020 16:13	WG1477213
1,3,5-Trimethylbenzene	U		0.00219	0.00548	1	05/16/2020 16:13	WG1477213
Vinyl chloride	U		0.00127	0.00274	1	05/16/2020 16:13	WG1477213
Xylenes, Total	0.00936		0.000964	0.00712	1	05/16/2020 16:13	WG1477213
(S) Toluene-d8	*104*			*75.0-131*		*05/16/2020 16:13*	WG1477213
(S) 4-Bromofluorobenzene	*97.6*			*67.0-138*		*05/16/2020 16:13*	WG1477213
(S) 1,2-Dichloroethane-d4	*92.6*			*70.0-130*		*05/16/2020 16:13*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.803	4.38	1	05/19/2020 10:03	WG1477296
C22-C32 Hydrocarbons	U		1.46	4.38	1	05/19/2020 10:03	WG1477296
C32-C40 Hydrocarbons	U		1.46	4.38	1	05/19/2020 10:03	WG1477296
(S) o-Terphenyl	*95.7*			*18.0-148*		*05/19/2020 10:03*	WG1477296

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.1		1	05/19/2020 21:53	WG1478933

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0817		0.0204	0.0454	1	05/18/2020 09:24	WG1477233

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.567	2.27	1	05/16/2020 18:47	WG1477073
Arsenic	6.22		0.522	2.27	1	05/16/2020 18:47	WG1477073
Barium	158		0.272	0.567	1	05/16/2020 18:47	WG1477073
Beryllium	0.521		0.0908	0.227	1	05/16/2020 18:47	WG1477073
Cadmium	0.716		0.0919	0.567	1	05/16/2020 18:47	WG1477073
Chromium	49.0		0.284	1.13	1	05/16/2020 18:47	WG1477073
Cobalt	12.4		0.261	1.13	1	05/16/2020 18:47	WG1477073
Copper	30.0		0.574	2.27	1	05/16/2020 18:47	WG1477073
Lead	10.3		0.236	0.567	1	05/16/2020 18:47	WG1477073
Molybdenum	U		0.227	0.567	1	05/16/2020 18:47	WG1477073
Nickel	84.8		0.556	2.27	1	05/16/2020 18:47	WG1477073
Selenium	U		0.700	2.27	1	05/16/2020 18:47	WG1477073
Silver	U		0.259	1.13	1	05/16/2020 18:47	WG1477073
Thallium	U		0.402	2.27	1	05/16/2020 18:47	WG1477073
Vanadium	43.1		0.780	2.27	1	05/16/2020 18:47	WG1477073
Zinc	61.6		1.07	5.67	1	05/16/2020 18:47	WG1477073

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.3		1	05/19/2020 21:53	WG1478933

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0396	0.0542	1	05/16/2020 16:33	WG1477213
Acrylonitrile	U		0.00391	0.0135	1	05/16/2020 16:33	WG1477213
Benzene	0.00550		0.000506	0.00108	1	05/16/2020 16:33	WG1477213
Bromobenzene	U		0.000976	0.0135	1	05/16/2020 16:33	WG1477213
Bromodichloromethane	U		0.000786	0.00271	1	05/16/2020 16:33	WG1477213
Bromoform	U		0.00127	0.0271	1	05/16/2020 16:33	WG1477213
Bromomethane	U		0.00214	0.0135	1	05/16/2020 16:33	WG1477213
n-Butylbenzene	U		0.00569	0.0135	1	05/16/2020 16:33	WG1477213
sec-Butylbenzene	U		0.00312	0.0135	1	05/16/2020 16:33	WG1477213
tert-Butylbenzene	U		0.00211	0.00542	1	05/16/2020 16:33	WG1477213
Carbon tetrachloride	U		0.000973	0.00542	1	05/16/2020 16:33	WG1477213
Chlorobenzene	U		0.000228	0.00271	1	05/16/2020 16:33	WG1477213
Chlorodibromomethane	U		0.000663	0.00271	1	05/16/2020 16:33	WG1477213
Chloroethane	U		0.00184	0.00542	1	05/16/2020 16:33	WG1477213
Chloroform	U		0.00112	0.00271	1	05/16/2020 16:33	WG1477213
Chloromethane	U		0.00472	0.0135	1	05/16/2020 16:33	WG1477213
2-Chlorotoluene	U		0.000938	0.00271	1	05/16/2020 16:33	WG1477213
4-Chlorotoluene	U		0.000488	0.00542	1	05/16/2020 16:33	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00423	0.0271	1	05/16/2020 16:33	WG1477213
1,2-Dibromoethane	U		0.000702	0.00271	1	05/16/2020 16:33	WG1477213
Dibromomethane	U		0.000813	0.00542	1	05/16/2020 16:33	WG1477213
1,2-Dichlorobenzene	U		0.000461	0.00542	1	05/16/2020 16:33	WG1477213
1,3-Dichlorobenzene	U		0.000650	0.00542	1	05/16/2020 16:33	WG1477213
1,4-Dichlorobenzene	U		0.000759	0.00542	1	05/16/2020 16:33	WG1477213
Dichlorodifluoromethane	U		0.00175	0.00271	1	05/16/2020 16:33	WG1477213
1,1-Dichloroethane	U		0.000532	0.00271	1	05/16/2020 16:33	WG1477213
1,2-Dichloroethane	U		0.000703	0.00271	1	05/16/2020 16:33	WG1477213
1,1-Dichloroethene	U		0.000657	0.00271	1	05/16/2020 16:33	WG1477213
cis-1,2-Dichloroethene	U		0.000796	0.00271	1	05/16/2020 16:33	WG1477213
trans-1,2-Dichloroethene	U		0.00113	0.00542	1	05/16/2020 16:33	WG1477213
1,2-Dichloropropane	U		0.00154	0.00542	1	05/16/2020 16:33	WG1477213
1,1-Dichloropropene	U		0.000877	0.00271	1	05/16/2020 16:33	WG1477213
1,3-Dichloropropane	U		0.000543	0.00542	1	05/16/2020 16:33	WG1477213
cis-1,3-Dichloropropene	U		0.000821	0.00271	1	05/16/2020 16:33	WG1477213
trans-1,3-Dichloropropene	U		0.00124	0.00542	1	05/16/2020 16:33	WG1477213
2,2-Dichloropropane	U		0.00150	0.00271	1	05/16/2020 16:33	WG1477213
Di-isopropyl ether	U		0.000444	0.00108	1	05/16/2020 16:33	WG1477213
Ethylbenzene	0.00158	J	0.000799	0.00271	1	05/16/2020 16:33	WG1477213
Hexachloro-1,3-butadiene	U		0.00650	0.0271	1	05/16/2020 16:33	WG1477213
Isopropylbenzene	U		0.000461	0.00271	1	05/16/2020 16:33	WG1477213
p-Isopropyltoluene	U		0.00276	0.00542	1	05/16/2020 16:33	WG1477213
2-Butanone (MEK)	U		0.0688	0.108	1	05/16/2020 16:33	WG1477213
Methylene Chloride	U		0.00720	0.0271	1	05/16/2020 16:33	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00247	0.0271	1	05/16/2020 16:33	WG1477213
Methyl tert-butyl ether	U		0.000379	0.00108	1	05/16/2020 16:33	WG1477213
Naphthalene	U		0.00529	0.0135	1	05/16/2020 16:33	WG1477213
n-Propylbenzene	U		0.00103	0.00542	1	05/16/2020 16:33	WG1477213
Styrene	U		0.000248	0.0135	1	05/16/2020 16:33	WG1477213
1,1,1,2-Tetrachloroethane	U		0.00103	0.00271	1	05/16/2020 16:33	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000753	0.00271	1	05/16/2020 16:33	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000817	0.00271	1	05/16/2020 16:33	WG1477213
Tetrachloroethene	U		0.000971	0.00271	1	05/16/2020 16:33	WG1477213
Toluene	0.0151		0.00141	0.00542	1	05/16/2020 16:33	WG1477213
1,2,3-Trichlorobenzene	U		0.00795	0.0135	1	05/16/2020 16:33	WG1477213
1,2,4-Trichlorobenzene	U		0.00477	0.0135	1	05/16/2020 16:33	WG1477213
1,1,1-Trichloroethane	U		0.00100	0.00271	1	05/16/2020 16:33	WG1477213
1,1,2-Trichloroethane	U		0.000647	0.00271	1	05/16/2020 16:33	WG1477213
Trichloroethene	U		0.000633	0.00108	1	05/16/2020 16:33	WG1477213
Trichlorofluoromethane	U		0.000896	0.00271	1	05/16/2020 16:33	WG1477213
1,2,3-Trichloropropane	U		0.00176	0.0135	1	05/16/2020 16:33	WG1477213
1,2,4-Trimethylbenzene	U		0.00171	0.00542	1	05/16/2020 16:33	WG1477213
1,2,3-Trimethylbenzene	U		0.00171	0.00542	1	05/16/2020 16:33	WG1477213
1,3,5-Trimethylbenzene	U		0.00217	0.00542	1	05/16/2020 16:33	WG1477213
Vinyl chloride	U		0.00126	0.00271	1	05/16/2020 16:33	WG1477213
Xylenes, Total	0.00521	J	0.000954	0.00705	1	05/16/2020 16:33	WG1477213
(S) Toluene-d8	*104*			*75.0-131*		*05/16/2020 16:33*	WG1477213
(S) 4-Bromofluorobenzene	*98.6*			*67.0-138*		*05/16/2020 16:33*	WG1477213
(S) 1,2-Dichloroethane-d4	*91.6*			*70.0-130*		*05/16/2020 16:33*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.795	4.34	1	05/19/2020 10:17	WG1477296
C22-C32 Hydrocarbons	U		1.44	4.34	1	05/19/2020 10:17	WG1477296
C32-C40 Hydrocarbons	U		1.44	4.34	1	05/19/2020 10:17	WG1477296
(S) o-Terphenyl	*95.9*			*18.0-148*		*05/19/2020 10:17*	WG1477296

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.0		1	05/19/2020 21:53	WG1478933

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0406	0.0556	1	05/16/2020 16:53	WG1477213
Acrylonitrile	U		0.00401	0.0139	1	05/16/2020 16:53	WG1477213
Benzene	0.00498		0.000519	0.00111	1	05/16/2020 16:53	WG1477213
Bromobenzene	U		0.00100	0.0139	1	05/16/2020 16:53	WG1477213
Bromodichloromethane	U		0.000806	0.00278	1	05/16/2020 16:53	WG1477213
Bromoform	U		0.00130	0.0278	1	05/16/2020 16:53	WG1477213
Bromomethane	U		0.00219	0.0139	1	05/16/2020 16:53	WG1477213
n-Butylbenzene	U		0.00583	0.0139	1	05/16/2020 16:53	WG1477213
sec-Butylbenzene	U		0.00320	0.0139	1	05/16/2020 16:53	WG1477213
tert-Butylbenzene	U		0.00217	0.00556	1	05/16/2020 16:53	WG1477213
Carbon tetrachloride	U		0.000998	0.00556	1	05/16/2020 16:53	WG1477213
Chlorobenzene	U		0.000233	0.00278	1	05/16/2020 16:53	WG1477213
Chlorodibromomethane	U		0.000680	0.00278	1	05/16/2020 16:53	WG1477213
Chloroethane	U		0.00189	0.00556	1	05/16/2020 16:53	WG1477213
Chloroform	U		0.00114	0.00278	1	05/16/2020 16:53	WG1477213
Chloromethane	U		0.00483	0.0139	1	05/16/2020 16:53	WG1477213
2-Chlorotoluene	U		0.000961	0.00278	1	05/16/2020 16:53	WG1477213
4-Chlorotoluene	U		0.000500	0.00556	1	05/16/2020 16:53	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00433	0.0278	1	05/16/2020 16:53	WG1477213
1,2-Dibromoethane	U		0.000720	0.00278	1	05/16/2020 16:53	WG1477213
Dibromomethane	U		0.000833	0.00556	1	05/16/2020 16:53	WG1477213
1,2-Dichlorobenzene	U		0.000472	0.00556	1	05/16/2020 16:53	WG1477213
1,3-Dichlorobenzene	U		0.000667	0.00556	1	05/16/2020 16:53	WG1477213
1,4-Dichlorobenzene	U		0.000778	0.00556	1	05/16/2020 16:53	WG1477213
Dichlorodifluoromethane	U		0.00179	0.00278	1	05/16/2020 16:53	WG1477213
1,1-Dichloroethane	U		0.000546	0.00278	1	05/16/2020 16:53	WG1477213
1,2-Dichloroethane	U		0.000721	0.00278	1	05/16/2020 16:53	WG1477213
1,1-Dichloroethene	U		0.000673	0.00278	1	05/16/2020 16:53	WG1477213
cis-1,2-Dichloroethene	U		0.000816	0.00278	1	05/16/2020 16:53	WG1477213
trans-1,2-Dichloroethene	U		0.00116	0.00556	1	05/16/2020 16:53	WG1477213
1,2-Dichloropropane	U		0.00158	0.00556	1	05/16/2020 16:53	WG1477213
1,1-Dichloropropene	U		0.000899	0.00278	1	05/16/2020 16:53	WG1477213
1,3-Dichloropropane	U		0.000557	0.00556	1	05/16/2020 16:53	WG1477213
cis-1,3-Dichloropropene	U		0.000841	0.00278	1	05/16/2020 16:53	WG1477213
trans-1,3-Dichloropropene	U		0.00127	0.00556	1	05/16/2020 16:53	WG1477213
2,2-Dichloropropane	U		0.00153	0.00278	1	05/16/2020 16:53	WG1477213
Di-isopropyl ether	U		0.000456	0.00111	1	05/16/2020 16:53	WG1477213
Ethylbenzene	0.00109	J	0.000819	0.00278	1	05/16/2020 16:53	WG1477213
Hexachloro-1,3-butadiene	U		0.00667	0.0278	1	05/16/2020 16:53	WG1477213
Isopropylbenzene	U		0.000472	0.00278	1	05/16/2020 16:53	WG1477213
p-Isopropyltoluene	U		0.00283	0.00556	1	05/16/2020 16:53	WG1477213
2-Butanone (MEK)	U		0.0706	0.111	1	05/16/2020 16:53	WG1477213
Methylene Chloride	U		0.00738	0.0278	1	05/16/2020 16:53	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00253	0.0278	1	05/16/2020 16:53	WG1477213
Methyl tert-butyl ether	U		0.000389	0.00111	1	05/16/2020 16:53	WG1477213
Naphthalene	U		0.00542	0.0139	1	05/16/2020 16:53	WG1477213
n-Propylbenzene	U		0.00106	0.00556	1	05/16/2020 16:53	WG1477213
Styrene	U		0.000254	0.0139	1	05/16/2020 16:53	WG1477213
1,1,1,2-Tetrachloroethane	U		0.00105	0.00278	1	05/16/2020 16:53	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000772	0.00278	1	05/16/2020 16:53	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000838	0.00278	1	05/16/2020 16:53	WG1477213
Tetrachloroethene	U		0.000996	0.00278	1	05/16/2020 16:53	WG1477213
Toluene	0.00926		0.00144	0.00556	1	05/16/2020 16:53	WG1477213
1,2,3-Trichlorobenzene	U		0.00814	0.0139	1	05/16/2020 16:53	WG1477213
1,2,4-Trichlorobenzene	U		0.00489	0.0139	1	05/16/2020 16:53	WG1477213
1,1,1-Trichloroethane	U		0.00103	0.00278	1	05/16/2020 16:53	WG1477213
1,1,2-Trichloroethane	U		0.000663	0.00278	1	05/16/2020 16:53	WG1477213
Trichloroethene	U		0.000649	0.00111	1	05/16/2020 16:53	WG1477213
Trichlorofluoromethane	U		0.000919	0.00278	1	05/16/2020 16:53	WG1477213
1,2,3-Trichloropropane	U		0.00180	0.0139	1	05/16/2020 16:53	WG1477213
1,2,4-Trimethylbenzene	U		0.00176	0.00556	1	05/16/2020 16:53	WG1477213
1,2,3-Trimethylbenzene	U		0.00176	0.00556	1	05/16/2020 16:53	WG1477213
1,3,5-Trimethylbenzene	U		0.00222	0.00556	1	05/16/2020 16:53	WG1477213
Vinyl chloride	U		0.00129	0.00278	1	05/16/2020 16:53	WG1477213
Xylenes, Total	0.00384	J	0.000978	0.00722	1	05/16/2020 16:53	WG1477213
(S) Toluene-d8	*103*			*75.0-131*		*05/16/2020 16:53*	WG1477213
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*05/16/2020 16:53*	WG1477213
(S) 1,2-Dichloroethane-d4	*92.9*			*70.0-130*		*05/16/2020 16:53*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.814	4.44	1	05/19/2020 10:32	WG1477296
C22-C32 Hydrocarbons	U		1.48	4.44	1	05/19/2020 10:32	WG1477296
C32-C40 Hydrocarbons	U		1.48	4.44	1	05/19/2020 10:32	WG1477296
(S) o-Terphenyl	*94.9*			*18.0-148*		*05/19/2020 10:32*	WG1477296

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.7		1	05/19/2020 21:53	WG1478933

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0771		0.0205	0.0456	1	05/18/2020 10:12	WG1477007

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	0.579	J	0.570	2.28	1	05/16/2020 18:49	WG1477073
Arsenic	3.76		0.525	2.28	1	05/16/2020 18:49	WG1477073
Barium	156		0.274	0.570	1	05/16/2020 18:49	WG1477073
Beryllium	0.223	J	0.0913	0.228	1	05/16/2020 18:49	WG1477073
Cadmium	1.25		0.0924	0.570	1	05/16/2020 18:49	WG1477073
Chromium	67.0		0.285	1.14	1	05/16/2020 18:49	WG1477073
Cobalt	8.14		0.262	1.14	1	05/16/2020 18:49	WG1477073
Copper	30.9		0.577	2.28	1	05/16/2020 18:49	WG1477073
Lead	99.5		0.237	0.570	1	05/16/2020 18:49	WG1477073
Molybdenum	0.352	J	0.228	0.570	1	05/16/2020 18:49	WG1477073
Nickel	104		0.559	2.28	1	05/16/2020 18:49	WG1477073
Selenium	U		0.704	2.28	1	05/16/2020 18:49	WG1477073
Silver	U		0.260	1.14	1	05/16/2020 18:49	WG1477073
Thallium	U		0.404	2.28	1	05/16/2020 18:49	WG1477073
Vanadium	33.8		0.784	2.28	1	05/16/2020 18:49	WG1477073
Zinc	83.1		1.07	5.70	1	05/16/2020 18:49	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0416	0.0570	1	05/16/2020 17:14	WG1477213
Acrylonitrile	U		0.00412	0.0143	1	05/16/2020 17:14	WG1477213
Benzene	U		0.000533	0.00114	1	05/16/2020 17:14	WG1477213
Bromobenzene	U		0.00103	0.0143	1	05/16/2020 17:14	WG1477213
Bromodichloromethane	U		0.000827	0.00285	1	05/16/2020 17:14	WG1477213
Bromoform	U		0.00133	0.0285	1	05/16/2020 17:14	WG1477213
Bromomethane	U		0.00225	0.0143	1	05/16/2020 17:14	WG1477213
n-Butylbenzene	U		0.00599	0.0143	1	05/16/2020 17:14	WG1477213
sec-Butylbenzene	U		0.00329	0.0143	1	05/16/2020 17:14	WG1477213
tert-Butylbenzene	U		0.00222	0.00570	1	05/16/2020 17:14	WG1477213
Carbon tetrachloride	U		0.00102	0.00570	1	05/16/2020 17:14	WG1477213
Chlorobenzene	U		0.000240	0.00285	1	05/16/2020 17:14	WG1477213
Chlorodibromomethane	U		0.000698	0.00285	1	05/16/2020 17:14	WG1477213
Chloroethane	U		0.00194	0.00570	1	05/16/2020 17:14	WG1477213
Chloroform	U		0.00118	0.00285	1	05/16/2020 17:14	WG1477213
Chloromethane	U		0.00496	0.0143	1	05/16/2020 17:14	WG1477213
2-Chlorotoluene	U		0.000987	0.00285	1	05/16/2020 17:14	WG1477213
4-Chlorotoluene	U		0.000513	0.00570	1	05/16/2020 17:14	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00445	0.0285	1	05/16/2020 17:14	WG1477213
1,2-Dibromoethane	U		0.000739	0.00285	1	05/16/2020 17:14	WG1477213
Dibromomethane	U		0.000856	0.00570	1	05/16/2020 17:14	WG1477213
1,2-Dichlorobenzene	U		0.000485	0.00570	1	05/16/2020 17:14	WG1477213
1,3-Dichlorobenzene	U		0.000685	0.00570	1	05/16/2020 17:14	WG1477213
1,4-Dichlorobenzene	U		0.000799	0.00570	1	05/16/2020 17:14	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00184	0.00285	1	05/16/2020 17:14	WG1477213
1,1-Dichloroethane	U		0.000560	0.00285	1	05/16/2020 17:14	WG1477213
1,2-Dichloroethane	U		0.000740	0.00285	1	05/16/2020 17:14	WG1477213
1,1-Dichloroethene	U		0.000691	0.00285	1	05/16/2020 17:14	WG1477213
cis-1,2-Dichloroethene	U		0.000837	0.00285	1	05/16/2020 17:14	WG1477213
trans-1,2-Dichloroethene	U		0.00119	0.00570	1	05/16/2020 17:14	WG1477213
1,2-Dichloropropane	U		0.00162	0.00570	1	05/16/2020 17:14	WG1477213
1,1-Dichloropropene	U		0.000923	0.00285	1	05/16/2020 17:14	WG1477213
1,3-Dichloropropane	U		0.000572	0.00570	1	05/16/2020 17:14	WG1477213
cis-1,3-Dichloropropene	U		0.000864	0.00285	1	05/16/2020 17:14	WG1477213
trans-1,3-Dichloropropene	U		0.00130	0.00570	1	05/16/2020 17:14	WG1477213
2,2-Dichloropropane	U		0.00157	0.00285	1	05/16/2020 17:14	WG1477213
Di-isopropyl ether	U		0.000468	0.00114	1	05/16/2020 17:14	WG1477213
Ethylbenzene	0.000959	J	0.000841	0.00285	1	05/16/2020 17:14	WG1477213
Hexachloro-1,3-butadiene	U		0.00685	0.0285	1	05/16/2020 17:14	WG1477213
Isopropylbenzene	0.00107	J	0.000485	0.00285	1	05/16/2020 17:14	WG1477213
p-Isopropyltoluene	U		0.00291	0.00570	1	05/16/2020 17:14	WG1477213
2-Butanone (MEK)	U		0.0724	0.114	1	05/16/2020 17:14	WG1477213
Methylene Chloride	U		0.00758	0.0285	1	05/16/2020 17:14	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00260	0.0285	1	05/16/2020 17:14	WG1477213
Methyl tert-butyl ether	U		0.000399	0.00114	1	05/16/2020 17:14	WG1477213
Naphthalene	U		0.00557	0.0143	1	05/16/2020 17:14	WG1477213
n-Propylbenzene	U		0.00108	0.00570	1	05/16/2020 17:14	WG1477213
Styrene	0.00743	J	0.000261	0.0143	1	05/16/2020 17:14	WG1477213
1,1,1,2-Tetrachloroethane	U		0.00108	0.00285	1	05/16/2020 17:14	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000793	0.00285	1	05/16/2020 17:14	WG1477213
1,1,2-Trichlorotrifluoroethane	U		0.000860	0.00285	1	05/16/2020 17:14	WG1477213
Tetrachloroethene	U		0.00102	0.00285	1	05/16/2020 17:14	WG1477213
Toluene	0.00185	J	0.00148	0.00570	1	05/16/2020 17:14	WG1477213
1,2,3-Trichlorobenzene	U		0.00836	0.0143	1	05/16/2020 17:14	WG1477213
1,2,4-Trichlorobenzene	0.0113	J	0.00502	0.0143	1	05/16/2020 17:14	WG1477213
1,1,1-Trichloroethane	U		0.00105	0.00285	1	05/16/2020 17:14	WG1477213
1,1,2-Trichloroethane	U		0.000681	0.00285	1	05/16/2020 17:14	WG1477213
Trichloroethene	U		0.000666	0.00114	1	05/16/2020 17:14	WG1477213
Trichlorofluoromethane	U		0.000943	0.00285	1	05/16/2020 17:14	WG1477213
1,2,3-Trichloropropane	U		0.00185	0.0143	1	05/16/2020 17:14	WG1477213
1,2,4-Trimethylbenzene	U		0.00180	0.00570	1	05/16/2020 17:14	WG1477213
1,2,3-Trimethylbenzene	U		0.00180	0.00570	1	05/16/2020 17:14	WG1477213
1,3,5-Trimethylbenzene	U		0.00228	0.00570	1	05/16/2020 17:14	WG1477213
Vinyl chloride	U		0.00132	0.00285	1	05/16/2020 17:14	WG1477213
Xylenes, Total	0.00146	J	0.00100	0.00742	1	05/16/2020 17:14	WG1477213
(S) Toluene-d8	*102*			*75.0-131*		*05/16/2020 17:14*	WG1477213
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*05/16/2020 17:14*	WG1477213
(S) 1,2-Dichloroethane-d4	*95.1*			*70.0-130*		*05/16/2020 17:14*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	197	J	83.6	456	100	05/18/2020 14:49	WG1477619
C22-C32 Hydrocarbons	1110		152	456	100	05/18/2020 14:49	WG1477619
C32-C40 Hydrocarbons	877		152	456	100	05/18/2020 14:49	WG1477619
(S) o-Terphenyl	*122*	J7		*18.0-148*		*05/18/2020 14:49*	WG1477619

Sample Narrative:

L1217589-19 WG1477619: Cannot run at lower dilution due to viscosity of extract

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0135	0.0388	1	05/18/2020 13:08	WG1477089
PCB 1221	U		0.0135	0.0388	1	05/18/2020 13:08	WG1477089
PCB 1232	U		0.0135	0.0388	1	05/18/2020 13:08	WG1477089
PCB 1242	U		0.0135	0.0388	1	05/18/2020 13:08	WG1477089
PCB 1248	U		0.00842	0.0194	1	05/18/2020 13:08	WG1477089
PCB 1254	U		0.00842	0.0194	1	05/18/2020 13:08	WG1477089
PCB 1260	U		0.00842	0.0194	1	05/18/2020 13:08	WG1477089
(S) Decachlorobiphenyl	*61.5*			*10.0-135*		*05/18/2020 13:08*	WG1477089
(S) Tetrachloro-m-xylene	*65.7*			*10.0-139*		*05/18/2020 13:08*	WG1477089

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.3		1	05/19/2020 21:53	WG1478933

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0471		0.0199	0.0443	1	05/18/2020 10:15	WG1477007

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	0.717	J	0.554	2.22	1	05/16/2020 18:52	WG1477073
Arsenic	5.70		0.510	2.22	1	05/16/2020 18:52	WG1477073
Barium	168		0.266	0.554	1	05/16/2020 18:52	WG1477073
Beryllium	0.525		0.0886	0.222	1	05/16/2020 18:52	WG1477073
Cadmium	0.777		0.0897	0.554	1	05/16/2020 18:52	WG1477073
Chromium	75.2		0.277	1.11	1	05/16/2020 18:52	WG1477073
Cobalt	13.5		0.255	1.11	1	05/16/2020 18:52	WG1477073
Copper	31.3		0.561	2.22	1	05/16/2020 18:52	WG1477073
Lead	9.31		0.230	0.554	1	05/16/2020 18:52	WG1477073
Molybdenum	U		0.222	0.554	1	05/16/2020 18:52	WG1477073
Nickel	89.7		0.543	2.22	1	05/16/2020 18:52	WG1477073
Selenium	1.65	J	0.684	2.22	1	05/16/2020 18:52	WG1477073
Silver	U		0.253	1.11	1	05/16/2020 18:52	WG1477073
Thallium	U		0.392	2.22	1	05/16/2020 18:52	WG1477073
Vanadium	47.9		0.761	2.22	1	05/16/2020 18:52	WG1477073
Zinc	75.5		1.04	5.54	1	05/16/2020 18:52	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0404	0.0554	1	05/16/2020 17:34	WG1477213
Acrylonitrile	U		0.00400	0.0139	1	05/16/2020 17:34	WG1477213
Benzene	U		0.000517	0.00111	1	05/16/2020 17:34	WG1477213
Bromobenzene	U		0.000997	0.0139	1	05/16/2020 17:34	WG1477213
Bromodichloromethane	U		0.000803	0.00277	1	05/16/2020 17:34	WG1477213
Bromoform	U		0.00130	0.0277	1	05/16/2020 17:34	WG1477213
Bromomethane	U		0.00218	0.0139	1	05/16/2020 17:34	WG1477213
n-Butylbenzene	U		0.00582	0.0139	1	05/16/2020 17:34	WG1477213
sec-Butylbenzene	U		0.00319	0.0139	1	05/16/2020 17:34	WG1477213
tert-Butylbenzene	U		0.00216	0.00554	1	05/16/2020 17:34	WG1477213
Carbon tetrachloride	U		0.000995	0.00554	1	05/16/2020 17:34	WG1477213
Chlorobenzene	U		0.000233	0.00277	1	05/16/2020 17:34	WG1477213
Chlorodibromomethane	U		0.000678	0.00277	1	05/16/2020 17:34	WG1477213
Chloroethane	U		0.00188	0.00554	1	05/16/2020 17:34	WG1477213
Chloroform	U		0.00114	0.00277	1	05/16/2020 17:34	WG1477213
Chloromethane	U		0.00482	0.0139	1	05/16/2020 17:34	WG1477213
2-Chlorotoluene	U		0.000958	0.00277	1	05/16/2020 17:34	WG1477213
4-Chlorotoluene	U		0.000499	0.00554	1	05/16/2020 17:34	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00432	0.0277	1	05/16/2020 17:34	WG1477213
1,2-Dibromoethane	U		0.000718	0.00277	1	05/16/2020 17:34	WG1477213
Dibromomethane	U		0.000831	0.00554	1	05/16/2020 17:34	WG1477213
1,2-Dichlorobenzene	U		0.000471	0.00554	1	05/16/2020 17:34	WG1477213
1,3-Dichlorobenzene	U		0.000665	0.00554	1	05/16/2020 17:34	WG1477213
1,4-Dichlorobenzene	U		0.000776	0.00554	1	05/16/2020 17:34	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00178	0.00277	1	05/16/2020 17:34	WG1477213
1,1-Dichloroethane	U		0.000544	0.00277	1	05/16/2020 17:34	WG1477213
1,2-Dichloroethane	U		0.000719	0.00277	1	05/16/2020 17:34	WG1477213
1,1-Dichloroethene	U		0.000671	0.00277	1	05/16/2020 17:34	WG1477213
cis-1,2-Dichloroethene	U		0.000813	0.00277	1	05/16/2020 17:34	WG1477213
trans-1,2-Dichloroethene	U		0.00115	0.00554	1	05/16/2020 17:34	WG1477213
1,2-Dichloropropane	U		0.00157	0.00554	1	05/16/2020 17:34	WG1477213
1,1-Dichloropropene	U		0.000896	0.00277	1	05/16/2020 17:34	WG1477213
1,3-Dichloropropane	U		0.000555	0.00554	1	05/16/2020 17:34	WG1477213
cis-1,3-Dichloropropene	U		0.000839	0.00277	1	05/16/2020 17:34	WG1477213
trans-1,3-Dichloropropene	U		0.00126	0.00554	1	05/16/2020 17:34	WG1477213
2,2-Dichloropropane	U		0.00153	0.00277	1	05/16/2020 17:34	WG1477213
Di-isopropyl ether	U		0.000454	0.00111	1	05/16/2020 17:34	WG1477213
Ethylbenzene	U		0.000817	0.00277	1	05/16/2020 17:34	WG1477213
Hexachloro-1,3-butadiene	U		0.00665	0.0277	1	05/16/2020 17:34	WG1477213
Isopropylbenzene	U		0.000471	0.00277	1	05/16/2020 17:34	WG1477213
p-Isopropyltoluene	U		0.00283	0.00554	1	05/16/2020 17:34	WG1477213
2-Butanone (MEK)	U		0.0704	0.111	1	05/16/2020 17:34	WG1477213
Methylene Chloride	U		0.00736	0.0277	1	05/16/2020 17:34	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00253	0.0277	1	05/16/2020 17:34	WG1477213
Methyl tert-butyl ether	U		0.000388	0.00111	1	05/16/2020 17:34	WG1477213
Naphthalene	U		0.00541	0.0139	1	05/16/2020 17:34	WG1477213
n-Propylbenzene	U		0.00105	0.00554	1	05/16/2020 17:34	WG1477213
Styrene	0.000852	J	0.000254	0.0139	1	05/16/2020 17:34	WG1477213
1,1,1,2-Tetrachloroethane	U		0.00105	0.00277	1	05/16/2020 17:34	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000770	0.00277	1	05/16/2020 17:34	WG1477213
1,1,2-Trichlorotrifluoroethane	U		0.000835	0.00277	1	05/16/2020 17:34	WG1477213
Tetrachloroethene	U		0.000993	0.00277	1	05/16/2020 17:34	WG1477213
Toluene	U		0.00144	0.00554	1	05/16/2020 17:34	WG1477213
1,2,3-Trichlorobenzene	U		0.00812	0.0139	1	05/16/2020 17:34	WG1477213
1,2,4-Trichlorobenzene	U		0.00488	0.0139	1	05/16/2020 17:34	WG1477213
1,1,1-Trichloroethane	U		0.00102	0.00277	1	05/16/2020 17:34	WG1477213
1,1,2-Trichloroethane	U		0.000661	0.00277	1	05/16/2020 17:34	WG1477213
Trichloroethene	U		0.000647	0.00111	1	05/16/2020 17:34	WG1477213
Trichlorofluoromethane	U		0.000916	0.00277	1	05/16/2020 17:34	WG1477213
1,2,3-Trichloropropane	U		0.00179	0.0139	1	05/16/2020 17:34	WG1477213
1,2,4-Trimethylbenzene	U		0.00175	0.00554	1	05/16/2020 17:34	WG1477213
1,2,3-Trimethylbenzene	U		0.00175	0.00554	1	05/16/2020 17:34	WG1477213
1,3,5-Trimethylbenzene	U		0.00222	0.00554	1	05/16/2020 17:34	WG1477213
Vinyl chloride	U		0.00129	0.00277	1	05/16/2020 17:34	WG1477213
Xylenes, Total	U		0.000975	0.00720	1	05/16/2020 17:34	WG1477213
(S) Toluene-d8	*104*			*75.0-131*		*05/16/2020 17:34*	WG1477213
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*05/16/2020 17:34*	WG1477213
(S) 1,2-Dichloroethane-d4	*95.9*			*70.0-130*		*05/16/2020 17:34*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.812	4.43	1	05/19/2020 10:47	WG1477296
C22-C32 Hydrocarbons	U		1.47	4.43	1	05/19/2020 10:47	WG1477296
C32-C40 Hydrocarbons	U		1.47	4.43	1	05/19/2020 10:47	WG1477296
(S) o-Terphenyl	*103*			*18.0-148*		*05/19/2020 10:47*	WG1477296

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.5		1	05/19/2020 21:53	WG1478933

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0395	0.0540	1	05/16/2020 17:54	WG1477213
Acrylonitrile	U		0.00390	0.0135	1	05/16/2020 17:54	WG1477213
Benzene	U		0.000505	0.00108	1	05/16/2020 17:54	WG1477213
Bromobenzene	U		0.000973	0.0135	1	05/16/2020 17:54	WG1477213
Bromodichloromethane	U		0.000784	0.00270	1	05/16/2020 17:54	WG1477213
Bromoform	U		0.00126	0.0270	1	05/16/2020 17:54	WG1477213
Bromomethane	U		0.00213	0.0135	1	05/16/2020 17:54	WG1477213
n-Butylbenzene	U		0.00567	0.0135	1	05/16/2020 17:54	WG1477213
sec-Butylbenzene	U		0.00311	0.0135	1	05/16/2020 17:54	WG1477213
tert-Butylbenzene	U		0.00211	0.00540	1	05/16/2020 17:54	WG1477213
Carbon tetrachloride	U		0.000971	0.00540	1	05/16/2020 17:54	WG1477213
Chlorobenzene	U		0.000227	0.00270	1	05/16/2020 17:54	WG1477213
Chlorodibromomethane	U		0.000662	0.00270	1	05/16/2020 17:54	WG1477213
Chloroethane	U		0.00184	0.00540	1	05/16/2020 17:54	WG1477213
Chloroform	U		0.00111	0.00270	1	05/16/2020 17:54	WG1477213
Chloromethane	U		0.00470	0.0135	1	05/16/2020 17:54	WG1477213
2-Chlorotoluene	U		0.000935	0.00270	1	05/16/2020 17:54	WG1477213
4-Chlorotoluene	U		0.000486	0.00540	1	05/16/2020 17:54	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00422	0.0270	1	05/16/2020 17:54	WG1477213
1,2-Dibromoethane	U		0.000700	0.00270	1	05/16/2020 17:54	WG1477213
Dibromomethane	U		0.000811	0.00540	1	05/16/2020 17:54	WG1477213
1,2-Dichlorobenzene	U		0.000459	0.00540	1	05/16/2020 17:54	WG1477213
1,3-Dichlorobenzene	U		0.000649	0.00540	1	05/16/2020 17:54	WG1477213
1,4-Dichlorobenzene	U		0.000757	0.00540	1	05/16/2020 17:54	WG1477213
Dichlorodifluoromethane	U		0.00174	0.00270	1	05/16/2020 17:54	WG1477213
1,1-Dichloroethane	U		0.000531	0.00270	1	05/16/2020 17:54	WG1477213
1,2-Dichloroethane	U		0.000702	0.00270	1	05/16/2020 17:54	WG1477213
1,1-Dichloroethene	U		0.000655	0.00270	1	05/16/2020 17:54	WG1477213
cis-1,2-Dichloroethene	U		0.000793	0.00270	1	05/16/2020 17:54	WG1477213
trans-1,2-Dichloroethene	U		0.00112	0.00540	1	05/16/2020 17:54	WG1477213
1,2-Dichloropropane	U		0.00153	0.00540	1	05/16/2020 17:54	WG1477213
1,1-Dichloropropene	U		0.000874	0.00270	1	05/16/2020 17:54	WG1477213
1,3-Dichloropropane	U		0.000542	0.00540	1	05/16/2020 17:54	WG1477213
cis-1,3-Dichloropropene	U		0.000818	0.00270	1	05/16/2020 17:54	WG1477213
trans-1,3-Dichloropropene	U		0.00123	0.00540	1	05/16/2020 17:54	WG1477213
2,2-Dichloropropane	U		0.00149	0.00270	1	05/16/2020 17:54	WG1477213
Di-isopropyl ether	U		0.000443	0.00108	1	05/16/2020 17:54	WG1477213
Ethylbenzene	U		0.000797	0.00270	1	05/16/2020 17:54	WG1477213
Hexachloro-1,3-butadiene	U		0.00649	0.0270	1	05/16/2020 17:54	WG1477213
Isopropylbenzene	U		0.000459	0.00270	1	05/16/2020 17:54	WG1477213
p-Isopropyltoluene	U		0.00276	0.00540	1	05/16/2020 17:54	WG1477213
2-Butanone (MEK)	U		0.0686	0.108	1	05/16/2020 17:54	WG1477213
Methylene Chloride	U		0.00718	0.0270	1	05/16/2020 17:54	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00246	0.0270	1	05/16/2020 17:54	WG1477213
Methyl tert-butyl ether	U		0.000378	0.00108	1	05/16/2020 17:54	WG1477213
Naphthalene	U		0.00527	0.0135	1	05/16/2020 17:54	WG1477213
n-Propylbenzene	U		0.00103	0.00540	1	05/16/2020 17:54	WG1477213
Styrene	U		0.000248	0.0135	1	05/16/2020 17:54	WG1477213
1,1,1,2-Tetrachloroethane	U		0.00102	0.00270	1	05/16/2020 17:54	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000751	0.00270	1	05/16/2020 17:54	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000815	0.00270	1	05/16/2020 17:54	WG1477213
Tetrachloroethene	U		0.000969	0.00270	1	05/16/2020 17:54	WG1477213
Toluene	U		0.00141	0.00540	1	05/16/2020 17:54	WG1477213
1,2,3-Trichlorobenzene	U		0.00792	0.0135	1	05/16/2020 17:54	WG1477213
1,2,4-Trichlorobenzene	U		0.00476	0.0135	1	05/16/2020 17:54	WG1477213
1,1,1-Trichloroethane	U		0.000998	0.00270	1	05/16/2020 17:54	WG1477213
1,1,2-Trichloroethane	U		0.000645	0.00270	1	05/16/2020 17:54	WG1477213
Trichloroethene	U		0.000631	0.00108	1	05/16/2020 17:54	WG1477213
Trichlorofluoromethane	U		0.000894	0.00270	1	05/16/2020 17:54	WG1477213
1,2,3-Trichloropropane	U		0.00175	0.0135	1	05/16/2020 17:54	WG1477213
1,2,4-Trimethylbenzene	U		0.00171	0.00540	1	05/16/2020 17:54	WG1477213
1,2,3-Trimethylbenzene	U		0.00171	0.00540	1	05/16/2020 17:54	WG1477213
1,3,5-Trimethylbenzene	U		0.00216	0.00540	1	05/16/2020 17:54	WG1477213
Vinyl chloride	U		0.00125	0.00270	1	05/16/2020 17:54	WG1477213
Xylenes, Total	U		0.000951	0.00703	1	05/16/2020 17:54	WG1477213
(S) Toluene-d8	*103*			*75.0-131*		*05/16/2020 17:54*	WG1477213
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*05/16/2020 17:54*	WG1477213
(S) 1,2-Dichloroethane-d4	*98.9*			*70.0-130*		*05/16/2020 17:54*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.792	4.32	1	05/19/2020 11:06	WG1477296
C22-C32 Hydrocarbons	U		1.44	4.32	1	05/19/2020 11:06	WG1477296
C32-C40 Hydrocarbons	U		1.44	4.32	1	05/19/2020 11:06	WG1477296
(S) o-Terphenyl	*103*			*18.0-148*		*05/19/2020 11:06*	WG1477296

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.3		1	05/19/2020 21:53	WG1478933

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0433	0.0593	1	05/16/2020 18:14	WG1477213
Acrylonitrile	U		0.00428	0.0148	1	05/16/2020 18:14	WG1477213
Benzene	U		0.000554	0.00119	1	05/16/2020 18:14	WG1477213
Bromobenzene	U		0.00107	0.0148	1	05/16/2020 18:14	WG1477213
Bromodichloromethane	U		0.000860	0.00297	1	05/16/2020 18:14	WG1477213
Bromoform	U		0.00139	0.0297	1	05/16/2020 18:14	WG1477213
Bromomethane	U		0.00234	0.0148	1	05/16/2020 18:14	WG1477213
n-Butylbenzene	U		0.00623	0.0148	1	05/16/2020 18:14	WG1477213
sec-Butylbenzene	U		0.00342	0.0148	1	05/16/2020 18:14	WG1477213
tert-Butylbenzene	U		0.00231	0.00593	1	05/16/2020 18:14	WG1477213
Carbon tetrachloride	U		0.00107	0.00593	1	05/16/2020 18:14	WG1477213
Chlorobenzene	U		0.000249	0.00297	1	05/16/2020 18:14	WG1477213
Chlorodibromomethane	U		0.000726	0.00297	1	05/16/2020 18:14	WG1477213
Chloroethane	U		0.00202	0.00593	1	05/16/2020 18:14	WG1477213
Chloroform	U		0.00122	0.00297	1	05/16/2020 18:14	WG1477213
Chloromethane	U		0.00516	0.0148	1	05/16/2020 18:14	WG1477213
2-Chlorotoluene	U		0.00103	0.00297	1	05/16/2020 18:14	WG1477213
4-Chlorotoluene	U		0.000534	0.00593	1	05/16/2020 18:14	WG1477213
1,2-Dibromo-3-Chloropropane	U		0.00463	0.0297	1	05/16/2020 18:14	WG1477213
1,2-Dibromoethane	U		0.000769	0.00297	1	05/16/2020 18:14	WG1477213
Dibromomethane	U		0.000890	0.00593	1	05/16/2020 18:14	WG1477213
1,2-Dichlorobenzene	U		0.000504	0.00593	1	05/16/2020 18:14	WG1477213
1,3-Dichlorobenzene	U		0.000712	0.00593	1	05/16/2020 18:14	WG1477213
1,4-Dichlorobenzene	U		0.000831	0.00593	1	05/16/2020 18:14	WG1477213
Dichlorodifluoromethane	U		0.00191	0.00297	1	05/16/2020 18:14	WG1477213
1,1-Dichloroethane	U		0.000583	0.00297	1	05/16/2020 18:14	WG1477213
1,2-Dichloroethane	U		0.000770	0.00297	1	05/16/2020 18:14	WG1477213
1,1-Dichloroethene	U		0.000719	0.00297	1	05/16/2020 18:14	WG1477213
cis-1,2-Dichloroethene	U		0.000871	0.00297	1	05/16/2020 18:14	WG1477213
trans-1,2-Dichloroethene	U		0.00123	0.00593	1	05/16/2020 18:14	WG1477213
1,2-Dichloropropane	U		0.00169	0.00593	1	05/16/2020 18:14	WG1477213
1,1-Dichloropropene	U		0.000960	0.00297	1	05/16/2020 18:14	WG1477213
1,3-Dichloropropane	U		0.000595	0.00593	1	05/16/2020 18:14	WG1477213
cis-1,3-Dichloropropene	U		0.000898	0.00297	1	05/16/2020 18:14	WG1477213
trans-1,3-Dichloropropene	U		0.00135	0.00593	1	05/16/2020 18:14	WG1477213
2,2-Dichloropropane	U		0.00164	0.00297	1	05/16/2020 18:14	WG1477213
Di-isopropyl ether	U		0.000487	0.00119	1	05/16/2020 18:14	WG1477213
Ethylbenzene	U		0.000875	0.00297	1	05/16/2020 18:14	WG1477213
Hexachloro-1,3-butadiene	U		0.00712	0.0297	1	05/16/2020 18:14	WG1477213
Isopropylbenzene	U		0.000504	0.00297	1	05/16/2020 18:14	WG1477213
p-Isopropyltoluene	U		0.00303	0.00593	1	05/16/2020 18:14	WG1477213
2-Butanone (MEK)	U		0.0754	0.119	1	05/16/2020 18:14	WG1477213
Methylene Chloride	U		0.00788	0.0297	1	05/16/2020 18:14	WG1477213
4-Methyl-2-pentanone (MIBK)	U		0.00271	0.0297	1	05/16/2020 18:14	WG1477213
Methyl tert-butyl ether	U		0.000415	0.00119	1	05/16/2020 18:14	WG1477213
Naphthalene	U		0.00579	0.0148	1	05/16/2020 18:14	WG1477213
n-Propylbenzene	U		0.00113	0.00593	1	05/16/2020 18:14	WG1477213
Styrene	U		0.000272	0.0148	1	05/16/2020 18:14	WG1477213
1,1,1,2-Tetrachloroethane	U		0.00113	0.00297	1	05/16/2020 18:14	WG1477213
1,1,2,2-Tetrachloroethane	U		0.000825	0.00297	1	05/16/2020 18:14	WG1477213

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000895	0.00297	1	05/16/2020 18:14	WG1477213
Tetrachloroethene	U		0.00106	0.00297	1	05/16/2020 18:14	WG1477213
Toluene	U		0.00154	0.00593	1	05/16/2020 18:14	WG1477213
1,2,3-Trichlorobenzene	U		0.00870	0.0148	1	05/16/2020 18:14	WG1477213
1,2,4-Trichlorobenzene	U		0.00522	0.0148	1	05/16/2020 18:14	WG1477213
1,1,1-Trichloroethane	U		0.00110	0.00297	1	05/16/2020 18:14	WG1477213
1,1,2-Trichloroethane	U		0.000709	0.00297	1	05/16/2020 18:14	WG1477213
Trichloroethene	U		0.000693	0.00119	1	05/16/2020 18:14	WG1477213
Trichlorofluoromethane	U		0.000981	0.00297	1	05/16/2020 18:14	WG1477213
1,2,3-Trichloropropane	U		0.00192	0.0148	1	05/16/2020 18:14	WG1477213
1,2,4-Trimethylbenzene	U		0.00188	0.00593	1	05/16/2020 18:14	WG1477213
1,2,3-Trimethylbenzene	U		0.00188	0.00593	1	05/16/2020 18:14	WG1477213
1,3,5-Trimethylbenzene	U		0.00237	0.00593	1	05/16/2020 18:14	WG1477213
Vinyl chloride	U		0.00138	0.00297	1	05/16/2020 18:14	WG1477213
Xylenes, Total	U		0.00104	0.00771	1	05/16/2020 18:14	WG1477213
(S) Toluene-d8	*100*			*75.0-131*		*05/16/2020 18:14*	WG1477213
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*05/16/2020 18:14*	WG1477213
(S) 1,2-Dichloroethane-d4	*95.7*			*70.0-130*		*05/16/2020 18:14*	WG1477213

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.870	4.75	1	05/18/2020 20:28	WG1477297
C22-C32 Hydrocarbons	U		1.58	4.75	1	05/18/2020 20:28	WG1477297
C32-C40 Hydrocarbons	U		1.58	4.75	1	05/18/2020 20:28	WG1477297
(S) o-Terphenyl	*103*			*18.0-148*		*05/18/2020 20:28*	WG1477297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.3		1	05/19/2020 21:53	WG1478933

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0397	J	0.0189	0.0420	1	05/18/2020 10:17	WG1477007

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	0.605	J	0.524	2.10	1	05/16/2020 18:55	WG1477073
Arsenic	5.12		0.482	2.10	1	05/16/2020 18:55	WG1477073
Barium	156		0.252	0.524	1	05/16/2020 18:55	WG1477073
Beryllium	0.336		0.0839	0.210	1	05/16/2020 18:55	WG1477073
Cadmium	1.13		0.0850	0.524	1	05/16/2020 18:55	WG1477073
Chromium	65.8		0.262	1.05	1	05/16/2020 18:55	WG1477073
Cobalt	11.7		0.241	1.05	1	05/16/2020 18:55	WG1477073
Copper	41.6		0.531	2.10	1	05/16/2020 18:55	WG1477073
Lead	72.5		0.218	0.524	1	05/16/2020 18:55	WG1477073
Molybdenum	0.280	J	0.210	0.524	1	05/16/2020 18:55	WG1477073
Nickel	87.6		0.514	2.10	1	05/16/2020 18:55	WG1477073
Selenium	U		0.647	2.10	1	05/16/2020 18:55	WG1477073
Silver	U		0.239	1.05	1	05/16/2020 18:55	WG1477073
Thallium	U		0.371	2.10	1	05/16/2020 18:55	WG1477073
Vanadium	60.1		0.721	2.10	1	05/16/2020 18:55	WG1477073
Zinc	136		0.985	5.24	1	05/16/2020 18:55	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0383	0.0524	1	05/16/2020 13:37	WG1477251
Acrylonitrile	U		0.00379	0.0131	1	05/16/2020 13:37	WG1477251
Benzene	U		0.000490	0.00105	1	05/16/2020 13:37	WG1477251
Bromobenzene	U		0.000944	0.0131	1	05/16/2020 13:37	WG1477251
Bromodichloromethane	U		0.000760	0.00262	1	05/16/2020 13:37	WG1477251
Bromoform	U		0.00123	0.0262	1	05/16/2020 13:37	WG1477251
Bromomethane	U		0.00207	0.0131	1	05/16/2020 13:37	WG1477251
n-Butylbenzene	U		0.00551	0.0131	1	05/16/2020 13:37	WG1477251
sec-Butylbenzene	U		0.00302	0.0131	1	05/16/2020 13:37	WG1477251
tert-Butylbenzene	U		0.00205	0.00524	1	05/16/2020 13:37	WG1477251
Carbon tetrachloride	U		0.000942	0.00524	1	05/16/2020 13:37	WG1477251
Chlorobenzene	U		0.000220	0.00262	1	05/16/2020 13:37	WG1477251
Chlorodibromomethane	U		0.000642	0.00262	1	05/16/2020 13:37	WG1477251
Chloroethane	U		0.00178	0.00524	1	05/16/2020 13:37	WG1477251
Chloroform	U		0.00108	0.00262	1	05/16/2020 13:37	WG1477251
Chloromethane	U		0.00456	0.0131	1	05/16/2020 13:37	WG1477251
2-Chlorotoluene	U		0.000907	0.00262	1	05/16/2020 13:37	WG1477251
4-Chlorotoluene	U		0.000472	0.00524	1	05/16/2020 13:37	WG1477251
1,2-Dibromo-3-Chloropropane	U		0.00409	0.0262	1	05/16/2020 13:37	WG1477251
1,2-Dibromoethane	U		0.000680	0.00262	1	05/16/2020 13:37	WG1477251
Dibromomethane	U		0.000787	0.00524	1	05/16/2020 13:37	WG1477251
1,2-Dichlorobenzene	U		0.000446	0.00524	1	05/16/2020 13:37	WG1477251
1,3-Dichlorobenzene	U		0.000629	0.00524	1	05/16/2020 13:37	WG1477251
1,4-Dichlorobenzene	U		0.000734	0.00524	1	05/16/2020 13:37	WG1477251

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00169	0.00262	1	05/16/2020 13:37	WG1477251
1,1-Dichloroethane	U		0.000515	0.00262	1	05/16/2020 13:37	WG1477251
1,2-Dichloroethane	U		0.000681	0.00262	1	05/16/2020 13:37	WG1477251
1,1-Dichloroethene	U		0.000636	0.00262	1	05/16/2020 13:37	WG1477251
cis-1,2-Dichloroethene	U		0.000770	0.00262	1	05/16/2020 13:37	WG1477251
trans-1,2-Dichloroethene	U		0.00109	0.00524	1	05/16/2020 13:37	WG1477251
1,2-Dichloropropane	0.00996		0.00149	0.00524	1	05/16/2020 13:37	WG1477251
1,1-Dichloropropene	U		0.000848	0.00262	1	05/16/2020 13:37	WG1477251
1,3-Dichloropropane	U		0.000525	0.00524	1	05/16/2020 13:37	WG1477251
cis-1,3-Dichloropropene	U		0.000794	0.00262	1	05/16/2020 13:37	WG1477251
trans-1,3-Dichloropropene	U		0.00120	0.00524	1	05/16/2020 13:37	WG1477251
2,2-Dichloropropane	U		0.00145	0.00262	1	05/16/2020 13:37	WG1477251
Di-isopropyl ether	U		0.000430	0.00105	1	05/16/2020 13:37	WG1477251
Ethylbenzene	U		0.000773	0.00262	1	05/16/2020 13:37	WG1477251
Hexachloro-1,3-butadiene	U		0.00629	0.0262	1	05/16/2020 13:37	WG1477251
Isopropylbenzene	U	J4	0.000446	0.00262	1	05/16/2020 13:37	WG1477251
p-Isopropyltoluene	U		0.00267	0.00524	1	05/16/2020 13:37	WG1477251
2-Butanone (MEK)	U		0.0666	0.105	1	05/16/2020 13:37	WG1477251
Methylene Chloride	U		0.00696	0.0262	1	05/16/2020 13:37	WG1477251
4-Methyl-2-pentanone (MIBK)	U		0.00239	0.0262	1	05/16/2020 13:37	WG1477251
Methyl tert-butyl ether	U		0.000367	0.00105	1	05/16/2020 13:37	WG1477251
Naphthalene	U		0.00512	0.0131	1	05/16/2020 13:37	WG1477251
n-Propylbenzene	U		0.000996	0.00524	1	05/16/2020 13:37	WG1477251
Styrene	U		0.000240	0.0131	1	05/16/2020 13:37	WG1477251
1,1,1,2-Tetrachloroethane	U		0.000994	0.00262	1	05/16/2020 13:37	WG1477251
1,1,2,2-Tetrachloroethane	U		0.000729	0.00262	1	05/16/2020 13:37	WG1477251
1,1,2-Trichlorotrifluoroethane	U		0.000791	0.00262	1	05/16/2020 13:37	WG1477251
Tetrachloroethene	U		0.000940	0.00262	1	05/16/2020 13:37	WG1477251
Toluene	U		0.00136	0.00524	1	05/16/2020 13:37	WG1477251
1,2,3-Trichlorobenzene	U		0.00769	0.0131	1	05/16/2020 13:37	WG1477251
1,2,4-Trichlorobenzene	U		0.00461	0.0131	1	05/16/2020 13:37	WG1477251
1,1,1-Trichloroethane	U		0.000968	0.00262	1	05/16/2020 13:37	WG1477251
1,1,2-Trichloroethane	U		0.000626	0.00262	1	05/16/2020 13:37	WG1477251
Trichloroethene	U		0.000612	0.00105	1	05/16/2020 13:37	WG1477251
Trichlorofluoromethane	U		0.000867	0.00262	1	05/16/2020 13:37	WG1477251
1,2,3-Trichloropropane	U		0.00170	0.0131	1	05/16/2020 13:37	WG1477251
1,2,4-Trimethylbenzene	U		0.00166	0.00524	1	05/16/2020 13:37	WG1477251
1,2,3-Trimethylbenzene	U		0.00166	0.00524	1	05/16/2020 13:37	WG1477251
1,3,5-Trimethylbenzene	U		0.00210	0.00524	1	05/16/2020 13:37	WG1477251
Vinyl chloride	U		0.00122	0.00262	1	05/16/2020 13:37	WG1477251
Xylenes, Total	U		0.000923	0.00682	1	05/16/2020 13:37	WG1477251
(S) Toluene-d8	*104*			*75.0-131*		*05/16/2020 13:37*	WG1477251
(S) 4-Bromofluorobenzene	*94.9*			*67.0-138*		*05/16/2020 13:37*	WG1477251
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*05/16/2020 13:37*	WG1477251

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	1.75	J	0.769	4.20	1	05/19/2020 14:02	WG1477297
C22-C32 Hydrocarbons	16.9		1.39	4.20	1	05/19/2020 14:02	WG1477297
C32-C40 Hydrocarbons	12.9		1.39	4.20	1	05/19/2020 14:02	WG1477297
(S) o-Terphenyl	*68.9*			*18.0-148*		*05/19/2020 14:02*	WG1477297

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0124	0.0357	1	05/18/2020 13:22	WG1477089
PCB 1221	U		0.0124	0.0357	1	05/18/2020 13:22	WG1477089
PCB 1232	U		0.0124	0.0357	1	05/18/2020 13:22	WG1477089
PCB 1242	U		0.0124	0.0357	1	05/18/2020 13:22	WG1477089
PCB 1248	U		0.00774	0.0178	1	05/18/2020 13:22	WG1477089
PCB 1254	U		0.00774	0.0178	1	05/18/2020 13:22	WG1477089
PCB 1260	U		0.00774	0.0178	1	05/18/2020 13:22	WG1477089
(S) Decachlorobiphenyl	*60.5*			*10.0-135*		*05/18/2020 13:22*	WG1477089
(S) Tetrachloro-m-xylene	*68.0*			*10.0-139*		*05/18/2020 13:22*	WG1477089

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.1		1	05/19/2020 21:53	WG1478933

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0211	J	0.0193	0.0430	1	05/18/2020 10:20	WG1477007

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	0.718	J	0.537	2.15	1	05/16/2020 18:58	WG1477073
Arsenic	7.34		0.494	2.15	1	05/16/2020 18:58	WG1477073
Barium	241		0.258	0.537	1	05/16/2020 18:58	WG1477073
Beryllium	0.525		0.0860	0.215	1	05/16/2020 18:58	WG1477073
Cadmium	0.789		0.0870	0.537	1	05/16/2020 18:58	WG1477073
Chromium	58.7		0.269	1.07	1	05/16/2020 18:58	WG1477073
Cobalt	14.8		0.247	1.07	1	05/16/2020 18:58	WG1477073
Copper	32.0		0.544	2.15	1	05/16/2020 18:58	WG1477073
Lead	9.15		0.223	0.537	1	05/16/2020 18:58	WG1477073
Molybdenum	U		0.215	0.537	1	05/16/2020 18:58	WG1477073
Nickel	86.5		0.527	2.15	1	05/16/2020 18:58	WG1477073
Selenium	1.25	J	0.663	2.15	1	05/16/2020 18:58	WG1477073
Silver	U		0.245	1.07	1	05/16/2020 18:58	WG1477073
Thallium	U		0.380	2.15	1	05/16/2020 18:58	WG1477073
Vanadium	52.2		0.738	2.15	1	05/16/2020 18:58	WG1477073
Zinc	71.0		1.01	5.37	1	05/16/2020 18:58	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0392	0.0537	1	05/16/2020 13:58	WG1477251
Acrylonitrile	U		0.00388	0.0134	1	05/16/2020 13:58	WG1477251
Benzene	U		0.000502	0.00107	1	05/16/2020 13:58	WG1477251
Bromobenzene	U		0.000967	0.0134	1	05/16/2020 13:58	WG1477251
Bromodichloromethane	U		0.000779	0.00269	1	05/16/2020 13:58	WG1477251
Bromoform	U		0.00126	0.0269	1	05/16/2020 13:58	WG1477251
Bromomethane	U		0.00212	0.0134	1	05/16/2020 13:58	WG1477251
n-Butylbenzene	U		0.00564	0.0134	1	05/16/2020 13:58	WG1477251
sec-Butylbenzene	U		0.00309	0.0134	1	05/16/2020 13:58	WG1477251
tert-Butylbenzene	U		0.00210	0.00537	1	05/16/2020 13:58	WG1477251
Carbon tetrachloride	U		0.000965	0.00537	1	05/16/2020 13:58	WG1477251
Chlorobenzene	U		0.000226	0.00269	1	05/16/2020 13:58	WG1477251
Chlorodibromomethane	U		0.000658	0.00269	1	05/16/2020 13:58	WG1477251
Chloroethane	U		0.00183	0.00537	1	05/16/2020 13:58	WG1477251
Chloroform	U		0.00111	0.00269	1	05/16/2020 13:58	WG1477251
Chloromethane	U		0.00467	0.0134	1	05/16/2020 13:58	WG1477251
2-Chlorotoluene	U		0.000929	0.00269	1	05/16/2020 13:58	WG1477251
4-Chlorotoluene	U		0.000484	0.00537	1	05/16/2020 13:58	WG1477251
1,2-Dibromo-3-Chloropropane	U		0.00419	0.0269	1	05/16/2020 13:58	WG1477251
1,2-Dibromoethane	U		0.000696	0.00269	1	05/16/2020 13:58	WG1477251
Dibromomethane	U		0.000806	0.00537	1	05/16/2020 13:58	WG1477251
1,2-Dichlorobenzene	U		0.000457	0.00537	1	05/16/2020 13:58	WG1477251
1,3-Dichlorobenzene	U		0.000645	0.00537	1	05/16/2020 13:58	WG1477251
1,4-Dichlorobenzene	U		0.000752	0.00537	1	05/16/2020 13:58	WG1477251

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00173	0.00269	1	05/16/2020 13:58	WG1477251
1,1-Dichloroethane	U		0.000528	0.00269	1	05/16/2020 13:58	WG1477251
1,2-Dichloroethane	U		0.000697	0.00269	1	05/16/2020 13:58	WG1477251
1,1-Dichloroethene	U		0.000651	0.00269	1	05/16/2020 13:58	WG1477251
cis-1,2-Dichloroethene	U		0.000789	0.00269	1	05/16/2020 13:58	WG1477251
trans-1,2-Dichloroethene	U		0.00112	0.00537	1	05/16/2020 13:58	WG1477251
1,2-Dichloropropane	U		0.00153	0.00537	1	05/16/2020 13:58	WG1477251
1,1-Dichloropropene	U		0.000869	0.00269	1	05/16/2020 13:58	WG1477251
1,3-Dichloropropane	U		0.000538	0.00537	1	05/16/2020 13:58	WG1477251
cis-1,3-Dichloropropene	U		0.000813	0.00269	1	05/16/2020 13:58	WG1477251
trans-1,3-Dichloropropene	U		0.00122	0.00537	1	05/16/2020 13:58	WG1477251
2,2-Dichloropropane	U		0.00148	0.00269	1	05/16/2020 13:58	WG1477251
Di-isopropyl ether	U		0.000441	0.00107	1	05/16/2020 13:58	WG1477251
Ethylbenzene	U		0.000792	0.00269	1	05/16/2020 13:58	WG1477251
Hexachloro-1,3-butadiene	U		0.00645	0.0269	1	05/16/2020 13:58	WG1477251
Isopropylbenzene	U	J4	0.000457	0.00269	1	05/16/2020 13:58	WG1477251
p-Isopropyltoluene	U		0.00274	0.00537	1	05/16/2020 13:58	WG1477251
2-Butanone (MEK)	U		0.0682	0.107	1	05/16/2020 13:58	WG1477251
Methylene Chloride	U		0.00713	0.0269	1	05/16/2020 13:58	WG1477251
4-Methyl-2-pentanone (MIBK)	U		0.00245	0.0269	1	05/16/2020 13:58	WG1477251
Methyl tert-butyl ether	U		0.000376	0.00107	1	05/16/2020 13:58	WG1477251
Naphthalene	U		0.00524	0.0134	1	05/16/2020 13:58	WG1477251
n-Propylbenzene	U		0.00102	0.00537	1	05/16/2020 13:58	WG1477251
Styrene	U		0.000246	0.0134	1	05/16/2020 13:58	WG1477251
1,1,1,2-Tetrachloroethane	U		0.00102	0.00269	1	05/16/2020 13:58	WG1477251
1,1,2,2-Tetrachloroethane	U		0.000747	0.00269	1	05/16/2020 13:58	WG1477251
1,1,2-Trichlorotrifluoroethane	U		0.000810	0.00269	1	05/16/2020 13:58	WG1477251
Tetrachloroethene	U		0.000963	0.00269	1	05/16/2020 13:58	WG1477251
Toluene	U		0.00140	0.00537	1	05/16/2020 13:58	WG1477251
1,2,3-Trichlorobenzene	U		0.00788	0.0134	1	05/16/2020 13:58	WG1477251
1,2,4-Trichlorobenzene	U		0.00473	0.0134	1	05/16/2020 13:58	WG1477251
1,1,1-Trichloroethane	U		0.000992	0.00269	1	05/16/2020 13:58	WG1477251
1,1,2-Trichloroethane	U		0.000641	0.00269	1	05/16/2020 13:58	WG1477251
Trichloroethene	U		0.000628	0.00107	1	05/16/2020 13:58	WG1477251
Trichlorofluoromethane	U		0.000889	0.00269	1	05/16/2020 13:58	WG1477251
1,2,3-Trichloropropane	U		0.00174	0.0134	1	05/16/2020 13:58	WG1477251
1,2,4-Trimethylbenzene	U		0.00170	0.00537	1	05/16/2020 13:58	WG1477251
1,2,3-Trimethylbenzene	U		0.00170	0.00537	1	05/16/2020 13:58	WG1477251
1,3,5-Trimethylbenzene	U		0.00215	0.00537	1	05/16/2020 13:58	WG1477251
Vinyl chloride	U		0.00125	0.00269	1	05/16/2020 13:58	WG1477251
Xylenes, Total	U		0.000946	0.00698	1	05/16/2020 13:58	WG1477251
(S) Toluene-d8	*109*			*75.0-131*		*05/16/2020 13:58*	WG1477251
(S) 4-Bromofluorobenzene	*93.3*			*67.0-138*		*05/16/2020 13:58*	WG1477251
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*05/16/2020 13:58*	WG1477251

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.788	4.30	1	05/18/2020 20:42	WG1477297
C22-C32 Hydrocarbons	U		1.43	4.30	1	05/18/2020 20:42	WG1477297
C32-C40 Hydrocarbons	U		1.43	4.30	1	05/18/2020 20:42	WG1477297
(S) o-Terphenyl	*105*			*18.0-148*		*05/18/2020 20:42*	WG1477297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.6		1	05/19/2020 21:54	WG1478937

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0427	0.0584	1	05/16/2020 14:18	WG1477251
Acrylonitrile	U		0.00422	0.0146	1	05/16/2020 14:18	WG1477251
Benzene	U		0.000546	0.00117	1	05/16/2020 14:18	WG1477251
Bromobenzene	U		0.00105	0.0146	1	05/16/2020 14:18	WG1477251
Bromodichloromethane	U		0.000847	0.00292	1	05/16/2020 14:18	WG1477251
Bromoform	U		0.00137	0.0292	1	05/16/2020 14:18	WG1477251
Bromomethane	U		0.00230	0.0146	1	05/16/2020 14:18	WG1477251
n-Butylbenzene	U		0.00614	0.0146	1	05/16/2020 14:18	WG1477251
sec-Butylbenzene	U		0.00337	0.0146	1	05/16/2020 14:18	WG1477251
tert-Butylbenzene	U		0.00228	0.00584	1	05/16/2020 14:18	WG1477251
Carbon tetrachloride	U		0.00105	0.00584	1	05/16/2020 14:18	WG1477251
Chlorobenzene	U		0.000245	0.00292	1	05/16/2020 14:18	WG1477251
Chlorodibromomethane	U		0.000715	0.00292	1	05/16/2020 14:18	WG1477251
Chloroethane	U		0.00199	0.00584	1	05/16/2020 14:18	WG1477251
Chloroform	U		0.00120	0.00292	1	05/16/2020 14:18	WG1477251
Chloromethane	U		0.00508	0.0146	1	05/16/2020 14:18	WG1477251
2-Chlorotoluene	U		0.00101	0.00292	1	05/16/2020 14:18	WG1477251
4-Chlorotoluene	U		0.000526	0.00584	1	05/16/2020 14:18	WG1477251
1,2-Dibromo-3-Chloropropane	U		0.00456	0.0292	1	05/16/2020 14:18	WG1477251
1,2-Dibromoethane	U		0.000757	0.00292	1	05/16/2020 14:18	WG1477251
Dibromomethane	U		0.000877	0.00584	1	05/16/2020 14:18	WG1477251
1,2-Dichlorobenzene	U		0.000497	0.00584	1	05/16/2020 14:18	WG1477251
1,3-Dichlorobenzene	U		0.000701	0.00584	1	05/16/2020 14:18	WG1477251
1,4-Dichlorobenzene	U		0.000818	0.00584	1	05/16/2020 14:18	WG1477251
Dichlorodifluoromethane	U		0.00188	0.00292	1	05/16/2020 14:18	WG1477251
1,1-Dichloroethane	U		0.000574	0.00292	1	05/16/2020 14:18	WG1477251
1,2-Dichloroethane	U		0.000759	0.00292	1	05/16/2020 14:18	WG1477251
1,1-Dichloroethene	U		0.000708	0.00292	1	05/16/2020 14:18	WG1477251
cis-1,2-Dichloroethene	U		0.000858	0.00292	1	05/16/2020 14:18	WG1477251
trans-1,2-Dichloroethene	U		0.00122	0.00584	1	05/16/2020 14:18	WG1477251
1,2-Dichloropropane	U		0.00166	0.00584	1	05/16/2020 14:18	WG1477251
1,1-Dichloropropene	U		0.000946	0.00292	1	05/16/2020 14:18	WG1477251
1,3-Dichloropropane	U		0.000586	0.00584	1	05/16/2020 14:18	WG1477251
cis-1,3-Dichloropropene	U		0.000885	0.00292	1	05/16/2020 14:18	WG1477251
trans-1,3-Dichloropropene	U		0.00133	0.00584	1	05/16/2020 14:18	WG1477251
2,2-Dichloropropane	U		0.00161	0.00292	1	05/16/2020 14:18	WG1477251
Di-isopropyl ether	U		0.000479	0.00117	1	05/16/2020 14:18	WG1477251
Ethylbenzene	U		0.000861	0.00292	1	05/16/2020 14:18	WG1477251
Hexachloro-1,3-butadiene	U		0.00701	0.0292	1	05/16/2020 14:18	WG1477251
Isopropylbenzene	U	J4	0.000497	0.00292	1	05/16/2020 14:18	WG1477251
p-Isopropyltoluene	U		0.00298	0.00584	1	05/16/2020 14:18	WG1477251
2-Butanone (MEK)	U		0.0742	0.117	1	05/16/2020 14:18	WG1477251
Methylene Chloride	U		0.00776	0.0292	1	05/16/2020 14:18	WG1477251
4-Methyl-2-pentanone (MIBK)	U		0.00266	0.0292	1	05/16/2020 14:18	WG1477251
Methyl tert-butyl ether	U		0.000409	0.00117	1	05/16/2020 14:18	WG1477251
Naphthalene	U		0.00570	0.0146	1	05/16/2020 14:18	WG1477251
n-Propylbenzene	U		0.00111	0.00584	1	05/16/2020 14:18	WG1477251
Styrene	U		0.000268	0.0146	1	05/16/2020 14:18	WG1477251
1,1,1,2-Tetrachloroethane	U		0.00111	0.00292	1	05/16/2020 14:18	WG1477251
1,1,2,2-Tetrachloroethane	U		0.000812	0.00292	1	05/16/2020 14:18	WG1477251

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000881	0.00292	1	05/16/2020 14:18	WG1477251
Tetrachloroethene	U		0.00105	0.00292	1	05/16/2020 14:18	WG1477251
Toluene	U		0.00152	0.00584	1	05/16/2020 14:18	WG1477251
1,2,3-Trichlorobenzene	U		0.00857	0.0146	1	05/16/2020 14:18	WG1477251
1,2,4-Trichlorobenzene	U		0.00514	0.0146	1	05/16/2020 14:18	WG1477251
1,1,1-Trichloroethane	U		0.00108	0.00292	1	05/16/2020 14:18	WG1477251
1,1,2-Trichloroethane	U		0.000698	0.00292	1	05/16/2020 14:18	WG1477251
Trichloroethene	U		0.000683	0.00117	1	05/16/2020 14:18	WG1477251
Trichlorofluoromethane	U		0.000967	0.00292	1	05/16/2020 14:18	WG1477251
1,2,3-Trichloropropane	U		0.00189	0.0146	1	05/16/2020 14:18	WG1477251
1,2,4-Trimethylbenzene	U		0.00185	0.00584	1	05/16/2020 14:18	WG1477251
1,2,3-Trimethylbenzene	U		0.00185	0.00584	1	05/16/2020 14:18	WG1477251
1,3,5-Trimethylbenzene	U		0.00234	0.00584	1	05/16/2020 14:18	WG1477251
Vinyl chloride	U		0.00136	0.00292	1	05/16/2020 14:18	WG1477251
Xylenes, Total	U		0.00103	0.00760	1	05/16/2020 14:18	WG1477251
(S) Toluene-d8	*119*			*75.0-131*		*05/16/2020 14:18*	WG1477251
(S) 4-Bromofluorobenzene	*97.4*			*67.0-138*		*05/16/2020 14:18*	WG1477251
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*05/16/2020 14:18*	WG1477251

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.857	4.68	1	05/18/2020 20:57	WG1477297
C22-C32 Hydrocarbons	U		1.55	4.68	1	05/18/2020 20:57	WG1477297
C32-C40 Hydrocarbons	U		1.55	4.68	1	05/18/2020 20:57	WG1477297
(S) o-Terphenyl	*97.5*			*18.0-148*		*05/18/2020 20:57*	WG1477297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.5		1	05/19/2020 21:54	WG1478937

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0386	0.0529	1	05/16/2020 14:38	WG1477251
Acrylonitrile	U		0.00382	0.0132	1	05/16/2020 14:38	WG1477251
Benzene	U		0.000494	0.00106	1	05/16/2020 14:38	WG1477251
Bromobenzene	U		0.000952	0.0132	1	05/16/2020 14:38	WG1477251
Bromodichloromethane	U		0.000767	0.00264	1	05/16/2020 14:38	WG1477251
Bromoform	U		0.00124	0.0264	1	05/16/2020 14:38	WG1477251
Bromomethane	U		0.00208	0.0132	1	05/16/2020 14:38	WG1477251
n-Butylbenzene	U		0.00555	0.0132	1	05/16/2020 14:38	WG1477251
sec-Butylbenzene	U		0.00305	0.0132	1	05/16/2020 14:38	WG1477251
tert-Butylbenzene	U		0.00206	0.00529	1	05/16/2020 14:38	WG1477251
Carbon tetrachloride	U		0.000950	0.00529	1	05/16/2020 14:38	WG1477251
Chlorobenzene	U		0.000222	0.00264	1	05/16/2020 14:38	WG1477251
Chlorodibromomethane	U		0.000647	0.00264	1	05/16/2020 14:38	WG1477251
Chloroethane	U		0.00180	0.00529	1	05/16/2020 14:38	WG1477251
Chloroform	U		0.00109	0.00264	1	05/16/2020 14:38	WG1477251
Chloromethane	U		0.00460	0.0132	1	05/16/2020 14:38	WG1477251
2-Chlorotoluene	U		0.000915	0.00264	1	05/16/2020 14:38	WG1477251
4-Chlorotoluene	U		0.000476	0.00529	1	05/16/2020 14:38	WG1477251
1,2-Dibromo-3-Chloropropane	U		0.00412	0.0264	1	05/16/2020 14:38	WG1477251
1,2-Dibromoethane	U		0.000685	0.00264	1	05/16/2020 14:38	WG1477251
Dibromomethane	U		0.000793	0.00529	1	05/16/2020 14:38	WG1477251
1,2-Dichlorobenzene	U		0.000449	0.00529	1	05/16/2020 14:38	WG1477251
1,3-Dichlorobenzene	U		0.000635	0.00529	1	05/16/2020 14:38	WG1477251
1,4-Dichlorobenzene	U		0.000740	0.00529	1	05/16/2020 14:38	WG1477251
Dichlorodifluoromethane	U		0.00170	0.00264	1	05/16/2020 14:38	WG1477251
1,1-Dichloroethane	U		0.000519	0.00264	1	05/16/2020 14:38	WG1477251
1,2-Dichloroethane	U		0.000686	0.00264	1	05/16/2020 14:38	WG1477251
1,1-Dichloroethene	U		0.000641	0.00264	1	05/16/2020 14:38	WG1477251
cis-1,2-Dichloroethene	U		0.000776	0.00264	1	05/16/2020 14:38	WG1477251
trans-1,2-Dichloroethene	U		0.00110	0.00529	1	05/16/2020 14:38	WG1477251
1,2-Dichloropropane	U		0.00150	0.00529	1	05/16/2020 14:38	WG1477251
1,1-Dichloropropene	U		0.000856	0.00264	1	05/16/2020 14:38	WG1477251
1,3-Dichloropropane	U		0.000530	0.00529	1	05/16/2020 14:38	WG1477251
cis-1,3-Dichloropropene	U		0.000801	0.00264	1	05/16/2020 14:38	WG1477251
trans-1,3-Dichloropropene	U		0.00121	0.00529	1	05/16/2020 14:38	WG1477251
2,2-Dichloropropane	U		0.00146	0.00264	1	05/16/2020 14:38	WG1477251
Di-isopropyl ether	U		0.000434	0.00106	1	05/16/2020 14:38	WG1477251
Ethylbenzene	U		0.000779	0.00264	1	05/16/2020 14:38	WG1477251
Hexachloro-1,3-butadiene	U		0.00635	0.0264	1	05/16/2020 14:38	WG1477251
Isopropylbenzene	U	J4	0.000449	0.00264	1	05/16/2020 14:38	WG1477251
p-Isopropyltoluene	U		0.00270	0.00529	1	05/16/2020 14:38	WG1477251
2-Butanone (MEK)	U		0.0672	0.106	1	05/16/2020 14:38	WG1477251
Methylene Chloride	U		0.00702	0.0264	1	05/16/2020 14:38	WG1477251
4-Methyl-2-pentanone (MIBK)	U		0.00241	0.0264	1	05/16/2020 14:38	WG1477251
Methyl tert-butyl ether	U		0.000370	0.00106	1	05/16/2020 14:38	WG1477251
Naphthalene	U		0.00516	0.0132	1	05/16/2020 14:38	WG1477251
n-Propylbenzene	U		0.00100	0.00529	1	05/16/2020 14:38	WG1477251
Styrene	U		0.000242	0.0132	1	05/16/2020 14:38	WG1477251
1,1,1,2-Tetrachloroethane	U		0.00100	0.00264	1	05/16/2020 14:38	WG1477251
1,1,2,2-Tetrachloroethane	U		0.000735	0.00264	1	05/16/2020 14:38	WG1477251

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000797	0.00264	1	05/16/2020 14:38	WG1477251
Tetrachloroethene	U		0.000948	0.00264	1	05/16/2020 14:38	WG1477251
Toluene	U		0.00137	0.00529	1	05/16/2020 14:38	WG1477251
1,2,3-Trichlorobenzene	U		0.00775	0.0132	1	05/16/2020 14:38	WG1477251
1,2,4-Trichlorobenzene	U		0.00465	0.0132	1	05/16/2020 14:38	WG1477251
1,1,1-Trichloroethane	U		0.000976	0.00264	1	05/16/2020 14:38	WG1477251
1,1,2-Trichloroethane	U		0.000631	0.00264	1	05/16/2020 14:38	WG1477251
Trichloroethene	U		0.000618	0.00106	1	05/16/2020 14:38	WG1477251
Trichlorofluoromethane	U		0.000875	0.00264	1	05/16/2020 14:38	WG1477251
1,2,3-Trichloropropane	U		0.00171	0.0132	1	05/16/2020 14:38	WG1477251
1,2,4-Trimethylbenzene	U		0.00167	0.00529	1	05/16/2020 14:38	WG1477251
1,2,3-Trimethylbenzene	U		0.00167	0.00529	1	05/16/2020 14:38	WG1477251
1,3,5-Trimethylbenzene	U		0.00212	0.00529	1	05/16/2020 14:38	WG1477251
Vinyl chloride	U		0.00123	0.00264	1	05/16/2020 14:38	WG1477251
Xylenes, Total	U		0.000931	0.00687	1	05/16/2020 14:38	WG1477251
(S) Toluene-d8	*103*			*75.0-131*		*05/16/2020 14:38*	WG1477251
(S) 4-Bromofluorobenzene	*84.4*			*67.0-138*		*05/16/2020 14:38*	WG1477251
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*05/16/2020 14:38*	WG1477251

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.775	4.23	1	05/18/2020 21:13	WG1477297
C22-C32 Hydrocarbons	U		1.41	4.23	1	05/18/2020 21:13	WG1477297
C32-C40 Hydrocarbons	U		1.41	4.23	1	05/18/2020 21:13	WG1477297
(S) o-Terphenyl	*111*			*18.0-148*		*05/18/2020 21:13*	WG1477297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.9		1	05/19/2020 21:54	WG1478937

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0341	J	0.0209	0.0465	1	05/18/2020 10:22	WG1477007

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.582	2.33	1	05/16/2020 19:01	WG1477073
Arsenic	8.33		0.535	2.33	1	05/16/2020 19:01	WG1477073
Barium	256		0.279	0.582	1	05/16/2020 19:01	WG1477073
Beryllium	0.470		0.0931	0.233	1	05/16/2020 19:01	WG1477073
Cadmium	0.692		0.0943	0.582	1	05/16/2020 19:01	WG1477073
Chromium	51.4		0.291	1.16	1	05/16/2020 19:01	WG1477073
Cobalt	12.3		0.268	1.16	1	05/16/2020 19:01	WG1477073
Copper	31.7		0.589	2.33	1	05/16/2020 19:01	WG1477073
Lead	9.43		0.242	0.582	1	05/16/2020 19:01	WG1477073
Molybdenum	U		0.233	0.582	1	05/16/2020 19:01	WG1477073
Nickel	82.2		0.570	2.33	1	05/16/2020 19:01	WG1477073
Selenium	U		0.718	2.33	1	05/16/2020 19:01	WG1477073
Silver	U		0.265	1.16	1	05/16/2020 19:01	WG1477073
Thallium	U		0.412	2.33	1	05/16/2020 19:01	WG1477073
Vanadium	45.4		0.799	2.33	1	05/16/2020 19:01	WG1477073
Zinc	62.4		1.09	5.82	1	05/16/2020 19:01	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0425	0.0582	1	05/16/2020 14:58	WG1477251
Acrylonitrile	U		0.00420	0.0145	1	05/16/2020 14:58	WG1477251
Benzene	U		0.000543	0.00116	1	05/16/2020 14:58	WG1477251
Bromobenzene	U		0.00105	0.0145	1	05/16/2020 14:58	WG1477251
Bromodichloromethane	U		0.000844	0.00291	1	05/16/2020 14:58	WG1477251
Bromoform	U		0.00136	0.0291	1	05/16/2020 14:58	WG1477251
Bromomethane	U		0.00229	0.0145	1	05/16/2020 14:58	WG1477251
n-Butylbenzene	U		0.00611	0.0145	1	05/16/2020 14:58	WG1477251
sec-Butylbenzene	U		0.00335	0.0145	1	05/16/2020 14:58	WG1477251
tert-Butylbenzene	U		0.00227	0.00582	1	05/16/2020 14:58	WG1477251
Carbon tetrachloride	U		0.00105	0.00582	1	05/16/2020 14:58	WG1477251
Chlorobenzene	U		0.000244	0.00291	1	05/16/2020 14:58	WG1477251
Chlorodibromomethane	U		0.000712	0.00291	1	05/16/2020 14:58	WG1477251
Chloroethane	U		0.00198	0.00582	1	05/16/2020 14:58	WG1477251
Chloroform	U		0.00120	0.00291	1	05/16/2020 14:58	WG1477251
Chloromethane	U		0.00506	0.0145	1	05/16/2020 14:58	WG1477251
2-Chlorotoluene	U		0.00101	0.00291	1	05/16/2020 14:58	WG1477251
4-Chlorotoluene	U		0.000524	0.00582	1	05/16/2020 14:58	WG1477251
1,2-Dibromo-3-Chloropropane	U		0.00454	0.0291	1	05/16/2020 14:58	WG1477251
1,2-Dibromoethane	U		0.000754	0.00291	1	05/16/2020 14:58	WG1477251
Dibromomethane	U		0.000873	0.00582	1	05/16/2020 14:58	WG1477251
1,2-Dichlorobenzene	U		0.000495	0.00582	1	05/16/2020 14:58	WG1477251
1,3-Dichlorobenzene	U		0.000698	0.00582	1	05/16/2020 14:58	WG1477251
1,4-Dichlorobenzene	U		0.000815	0.00582	1	05/16/2020 14:58	WG1477251

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00187	0.00291	1	05/16/2020 14:58	WG1477251
1,1-Dichloroethane	U		0.000571	0.00291	1	05/16/2020 14:58	WG1477251
1,2-Dichloroethane	U		0.000755	0.00291	1	05/16/2020 14:58	WG1477251
1,1-Dichloroethene	U		0.000705	0.00291	1	05/16/2020 14:58	WG1477251
cis-1,2-Dichloroethene	U		0.000854	0.00291	1	05/16/2020 14:58	WG1477251
trans-1,2-Dichloroethene	U		0.00121	0.00582	1	05/16/2020 14:58	WG1477251
1,2-Dichloropropane	U		0.00165	0.00582	1	05/16/2020 14:58	WG1477251
1,1-Dichloropropene	U		0.000941	0.00291	1	05/16/2020 14:58	WG1477251
1,3-Dichloropropane	U		0.000583	0.00582	1	05/16/2020 14:58	WG1477251
cis-1,3-Dichloropropene	U		0.000881	0.00291	1	05/16/2020 14:58	WG1477251
trans-1,3-Dichloropropene	U		0.00133	0.00582	1	05/16/2020 14:58	WG1477251
2,2-Dichloropropane	U		0.00161	0.00291	1	05/16/2020 14:58	WG1477251
Di-isopropyl ether	U		0.000477	0.00116	1	05/16/2020 14:58	WG1477251
Ethylbenzene	0.00467		0.000858	0.00291	1	05/16/2020 14:58	WG1477251
Hexachloro-1,3-butadiene	U		0.00698	0.0291	1	05/16/2020 14:58	WG1477251
Isopropylbenzene	U	J4	0.000495	0.00291	1	05/16/2020 14:58	WG1477251
p-Isopropyltoluene	U		0.00297	0.00582	1	05/16/2020 14:58	WG1477251
2-Butanone (MEK)	U		0.0739	0.116	1	05/16/2020 14:58	WG1477251
Methylene Chloride	U		0.00773	0.0291	1	05/16/2020 14:58	WG1477251
4-Methyl-2-pentanone (MIBK)	U		0.00265	0.0291	1	05/16/2020 14:58	WG1477251
Methyl tert-butyl ether	U		0.000407	0.00116	1	05/16/2020 14:58	WG1477251
Naphthalene	U		0.00568	0.0145	1	05/16/2020 14:58	WG1477251
n-Propylbenzene	U		0.00111	0.00582	1	05/16/2020 14:58	WG1477251
Styrene	U		0.000266	0.0145	1	05/16/2020 14:58	WG1477251
1,1,1,2-Tetrachloroethane	U		0.00110	0.00291	1	05/16/2020 14:58	WG1477251
1,1,2,2-Tetrachloroethane	U		0.000809	0.00291	1	05/16/2020 14:58	WG1477251
1,1,2-Trichlorotrifluoroethane	U		0.000877	0.00291	1	05/16/2020 14:58	WG1477251
Tetrachloroethene	U		0.00104	0.00291	1	05/16/2020 14:58	WG1477251
Toluene	0.0138		0.00151	0.00582	1	05/16/2020 14:58	WG1477251
1,2,3-Trichlorobenzene	U		0.00853	0.0145	1	05/16/2020 14:58	WG1477251
1,2,4-Trichlorobenzene	U		0.00512	0.0145	1	05/16/2020 14:58	WG1477251
1,1,1-Trichloroethane	U		0.00107	0.00291	1	05/16/2020 14:58	WG1477251
1,1,2-Trichloroethane	U		0.000695	0.00291	1	05/16/2020 14:58	WG1477251
Trichloroethene	U		0.000680	0.00116	1	05/16/2020 14:58	WG1477251
Trichlorofluoromethane	U		0.000962	0.00291	1	05/16/2020 14:58	WG1477251
1,2,3-Trichloropropane	U		0.00189	0.0145	1	05/16/2020 14:58	WG1477251
1,2,4-Trimethylbenzene	U		0.00184	0.00582	1	05/16/2020 14:58	WG1477251
1,2,3-Trimethylbenzene	U		0.00184	0.00582	1	05/16/2020 14:58	WG1477251
1,3,5-Trimethylbenzene	U		0.00233	0.00582	1	05/16/2020 14:58	WG1477251
Vinyl chloride	U		0.00135	0.00291	1	05/16/2020 14:58	WG1477251
Xylenes, Total	0.0109		0.00102	0.00756	1	05/16/2020 14:58	WG1477251
(S) Toluene-d8	*104*			*75.0-131*		*05/16/2020 14:58*	WG1477251
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*05/16/2020 14:58*	WG1477251
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*05/16/2020 14:58*	WG1477251

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.853	4.65	1	05/18/2020 21:27	WG1477297
C22-C32 Hydrocarbons	U		1.55	4.65	1	05/18/2020 21:27	WG1477297
C32-C40 Hydrocarbons	U		1.55	4.65	1	05/18/2020 21:27	WG1477297
(S) o-Terphenyl	*86.6*			*18.0-148*		*05/18/2020 21:27*	WG1477297

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0137	0.0396	1	05/18/2020 13:50	WG1477089
PCB 1221	U		0.0137	0.0396	1	05/18/2020 13:50	WG1477089
PCB 1232	U		0.0137	0.0396	1	05/18/2020 13:50	WG1477089
PCB 1242	U		0.0137	0.0396	1	05/18/2020 13:50	WG1477089
PCB 1248	U		0.00859	0.0198	1	05/18/2020 13:50	WG1477089
PCB 1254	U		0.00859	0.0198	1	05/18/2020 13:50	WG1477089
PCB 1260	U		0.00859	0.0198	1	05/18/2020 13:50	WG1477089
(S) Decachlorobiphenyl	*72.2*			*10.0-135*		*05/18/2020 13:50*	WG1477089
(S) Tetrachloro-m-xylene	*77.6*			*10.0-139*		*05/18/2020 13:50*	WG1477089

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.3		1	05/19/2020 21:54	WG1478937

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0679		0.0193	0.0429	1	05/18/2020 10:25	WG1477007

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.536	2.14	1	05/16/2020 19:09	WG1477073
Arsenic	5.10		0.493	2.14	1	05/16/2020 19:09	WG1477073
Barium	183		0.257	0.536	1	05/16/2020 19:09	WG1477073
Beryllium	0.413		0.0858	0.214	1	05/16/2020 19:09	WG1477073
Cadmium	0.613		0.0869	0.536	1	05/16/2020 19:09	WG1477073
Chromium	47.8		0.268	1.07	1	05/16/2020 19:09	WG1477073
Cobalt	10.8		0.247	1.07	1	05/16/2020 19:09	WG1477073
Copper	26.9		0.543	2.14	1	05/16/2020 19:09	WG1477073
Lead	8.86		0.223	0.536	1	05/16/2020 19:09	WG1477073
Molybdenum	U		0.214	0.536	1	05/16/2020 19:09	WG1477073
Nickel	67.1		0.525	2.14	1	05/16/2020 19:09	WG1477073
Selenium	U		0.662	2.14	1	05/16/2020 19:09	WG1477073
Silver	U		0.244	1.07	1	05/16/2020 19:09	WG1477073
Thallium	U		0.380	2.14	1	05/16/2020 19:09	WG1477073
Vanadium	38.2		0.737	2.14	1	05/16/2020 19:09	WG1477073
Zinc	58.0		1.01	5.36	1	05/16/2020 19:09	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0391	0.0536	1	05/16/2020 15:19	WG1477251
Acrylonitrile	U		0.00387	0.0134	1	05/16/2020 15:19	WG1477251
Benzene	U		0.000501	0.00107	1	05/16/2020 15:19	WG1477251
Bromobenzene	U		0.000965	0.0134	1	05/16/2020 15:19	WG1477251
Bromodichloromethane	U		0.000777	0.00268	1	05/16/2020 15:19	WG1477251
Bromoform	U		0.00125	0.0268	1	05/16/2020 15:19	WG1477251
Bromomethane	U		0.00211	0.0134	1	05/16/2020 15:19	WG1477251
n-Butylbenzene	U		0.00563	0.0134	1	05/16/2020 15:19	WG1477251
sec-Butylbenzene	U		0.00309	0.0134	1	05/16/2020 15:19	WG1477251
tert-Butylbenzene	U		0.00209	0.00536	1	05/16/2020 15:19	WG1477251
Carbon tetrachloride	U		0.000963	0.00536	1	05/16/2020 15:19	WG1477251
Chlorobenzene	U		0.000225	0.00268	1	05/16/2020 15:19	WG1477251
Chlorodibromomethane	U		0.000656	0.00268	1	05/16/2020 15:19	WG1477251
Chloroethane	U		0.00182	0.00536	1	05/16/2020 15:19	WG1477251
Chloroform	U		0.00110	0.00268	1	05/16/2020 15:19	WG1477251
Chloromethane	U		0.00466	0.0134	1	05/16/2020 15:19	WG1477251
2-Chlorotoluene	U		0.000928	0.00268	1	05/16/2020 15:19	WG1477251
4-Chlorotoluene	U		0.000483	0.00536	1	05/16/2020 15:19	WG1477251
1,2-Dibromo-3-Chloropropane	U		0.00418	0.0268	1	05/16/2020 15:19	WG1477251
1,2-Dibromoethane	U		0.000695	0.00268	1	05/16/2020 15:19	WG1477251
Dibromomethane	U		0.000804	0.00536	1	05/16/2020 15:19	WG1477251
1,2-Dichlorobenzene	U		0.000456	0.00536	1	05/16/2020 15:19	WG1477251
1,3-Dichlorobenzene	U		0.000643	0.00536	1	05/16/2020 15:19	WG1477251
1,4-Dichlorobenzene	U		0.000751	0.00536	1	05/16/2020 15:19	WG1477251

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00173	0.00268	1	05/16/2020 15:19	WG1477251
1,1-Dichloroethane	U		0.000527	0.00268	1	05/16/2020 15:19	WG1477251
1,2-Dichloroethane	U		0.000696	0.00268	1	05/16/2020 15:19	WG1477251
1,1-Dichloroethene	U		0.000650	0.00268	1	05/16/2020 15:19	WG1477251
cis-1,2-Dichloroethene	U		0.000787	0.00268	1	05/16/2020 15:19	WG1477251
trans-1,2-Dichloroethene	U		0.00112	0.00536	1	05/16/2020 15:19	WG1477251
1,2-Dichloropropane	U		0.00152	0.00536	1	05/16/2020 15:19	WG1477251
1,1-Dichloropropene	U		0.000868	0.00268	1	05/16/2020 15:19	WG1477251
1,3-Dichloropropane	U		0.000537	0.00536	1	05/16/2020 15:19	WG1477251
cis-1,3-Dichloropropene	U		0.000812	0.00268	1	05/16/2020 15:19	WG1477251
trans-1,3-Dichloropropene	U		0.00122	0.00536	1	05/16/2020 15:19	WG1477251
2,2-Dichloropropane	U		0.00148	0.00268	1	05/16/2020 15:19	WG1477251
Di-isopropyl ether	U		0.000440	0.00107	1	05/16/2020 15:19	WG1477251
Ethylbenzene	U		0.000790	0.00268	1	05/16/2020 15:19	WG1477251
Hexachloro-1,3-butadiene	U		0.00643	0.0268	1	05/16/2020 15:19	WG1477251
Isopropylbenzene	U	J4	0.000456	0.00268	1	05/16/2020 15:19	WG1477251
p-Isopropyltoluene	U		0.00273	0.00536	1	05/16/2020 15:19	WG1477251
2-Butanone (MEK)	U		0.0681	0.107	1	05/16/2020 15:19	WG1477251
Methylene Chloride	U		0.00712	0.0268	1	05/16/2020 15:19	WG1477251
4-Methyl-2-pentanone (MIBK)	U		0.00244	0.0268	1	05/16/2020 15:19	WG1477251
Methyl tert-butyl ether	U		0.000375	0.00107	1	05/16/2020 15:19	WG1477251
Naphthalene	U		0.00523	0.0134	1	05/16/2020 15:19	WG1477251
n-Propylbenzene	U		0.00102	0.00536	1	05/16/2020 15:19	WG1477251
Styrene	U		0.000246	0.0134	1	05/16/2020 15:19	WG1477251
1,1,1,2-Tetrachloroethane	U		0.00102	0.00268	1	05/16/2020 15:19	WG1477251
1,1,2,2-Tetrachloroethane	U		0.000745	0.00268	1	05/16/2020 15:19	WG1477251
1,1,2-Trichlorotrifluoroethane	U		0.000809	0.00268	1	05/16/2020 15:19	WG1477251
Tetrachloroethene	U		0.000961	0.00268	1	05/16/2020 15:19	WG1477251
Toluene	U		0.00139	0.00536	1	05/16/2020 15:19	WG1477251
1,2,3-Trichlorobenzene	U		0.00786	0.0134	1	05/16/2020 15:19	WG1477251
1,2,4-Trichlorobenzene	U		0.00472	0.0134	1	05/16/2020 15:19	WG1477251
1,1,1-Trichloroethane	U		0.000990	0.00268	1	05/16/2020 15:19	WG1477251
1,1,2-Trichloroethane	U		0.000640	0.00268	1	05/16/2020 15:19	WG1477251
Trichloroethene	U		0.000626	0.00107	1	05/16/2020 15:19	WG1477251
Trichlorofluoromethane	U		0.000887	0.00268	1	05/16/2020 15:19	WG1477251
1,2,3-Trichloropropane	U		0.00174	0.0134	1	05/16/2020 15:19	WG1477251
1,2,4-Trimethylbenzene	U		0.00169	0.00536	1	05/16/2020 15:19	WG1477251
1,2,3-Trimethylbenzene	U		0.00169	0.00536	1	05/16/2020 15:19	WG1477251
1,3,5-Trimethylbenzene	U		0.00214	0.00536	1	05/16/2020 15:19	WG1477251
Vinyl chloride	U		0.00124	0.00268	1	05/16/2020 15:19	WG1477251
Xylenes, Total	0.00136	J	0.000944	0.00697	1	05/16/2020 15:19	WG1477251
(S) Toluene-d8	*108*			*75.0-131*		*05/16/2020 15:19*	WG1477251
(S) 4-Bromofluorobenzene	*116*			*67.0-138*		*05/16/2020 15:19*	WG1477251
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*05/16/2020 15:19*	WG1477251

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.786	4.29	1	05/18/2020 21:42	WG1477297
C22-C32 Hydrocarbons	U		1.43	4.29	1	05/18/2020 21:42	WG1477297
C32-C40 Hydrocarbons	U		1.43	4.29	1	05/18/2020 21:42	WG1477297
(S) o-Terphenyl	*92.9*			*18.0-148*		*05/18/2020 21:42*	WG1477297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.5		1	05/19/2020 21:54	WG1478937

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0443	0.0606	1	05/16/2020 15:39	WG1477251
Acrylonitrile	U		0.00438	0.0152	1	05/16/2020 15:39	WG1477251
Benzene	U		0.000566	0.00121	1	05/16/2020 15:39	WG1477251
Bromobenzene	U		0.00109	0.0152	1	05/16/2020 15:39	WG1477251
Bromodichloromethane	U		0.000879	0.00303	1	05/16/2020 15:39	WG1477251
Bromoform	U		0.00142	0.0303	1	05/16/2020 15:39	WG1477251
Bromomethane	U		0.00239	0.0152	1	05/16/2020 15:39	WG1477251
n-Butylbenzene	U		0.00637	0.0152	1	05/16/2020 15:39	WG1477251
sec-Butylbenzene	U		0.00349	0.0152	1	05/16/2020 15:39	WG1477251
tert-Butylbenzene	U		0.00236	0.00606	1	05/16/2020 15:39	WG1477251
Carbon tetrachloride	U		0.00109	0.00606	1	05/16/2020 15:39	WG1477251
Chlorobenzene	U		0.000255	0.00303	1	05/16/2020 15:39	WG1477251
Chlorodibromomethane	U		0.000742	0.00303	1	05/16/2020 15:39	WG1477251
Chloroethane	U		0.00206	0.00606	1	05/16/2020 15:39	WG1477251
Chloroform	U		0.00125	0.00303	1	05/16/2020 15:39	WG1477251
Chloromethane	U		0.00527	0.0152	1	05/16/2020 15:39	WG1477251
2-Chlorotoluene	U		0.00105	0.00303	1	05/16/2020 15:39	WG1477251
4-Chlorotoluene	U		0.000546	0.00606	1	05/16/2020 15:39	WG1477251
1,2-Dibromo-3-Chloropropane	U		0.00473	0.0303	1	05/16/2020 15:39	WG1477251
1,2-Dibromoethane	U		0.000786	0.00303	1	05/16/2020 15:39	WG1477251
Dibromomethane	U		0.000909	0.00606	1	05/16/2020 15:39	WG1477251
1,2-Dichlorobenzene	U		0.000515	0.00606	1	05/16/2020 15:39	WG1477251
1,3-Dichlorobenzene	U		0.000728	0.00606	1	05/16/2020 15:39	WG1477251
1,4-Dichlorobenzene	U		0.000849	0.00606	1	05/16/2020 15:39	WG1477251
Dichlorodifluoromethane	U		0.00195	0.00303	1	05/16/2020 15:39	WG1477251
1,1-Dichloroethane	U		0.000595	0.00303	1	05/16/2020 15:39	WG1477251
1,2-Dichloroethane	U		0.000787	0.00303	1	05/16/2020 15:39	WG1477251
1,1-Dichloroethene	U		0.000735	0.00303	1	05/16/2020 15:39	WG1477251
cis-1,2-Dichloroethene	U		0.000890	0.00303	1	05/16/2020 15:39	WG1477251
trans-1,2-Dichloroethene	U		0.00126	0.00606	1	05/16/2020 15:39	WG1477251
1,2-Dichloropropane	U		0.00172	0.00606	1	05/16/2020 15:39	WG1477251
1,1-Dichloropropene	U		0.000981	0.00303	1	05/16/2020 15:39	WG1477251
1,3-Dichloropropane	U		0.000607	0.00606	1	05/16/2020 15:39	WG1477251
cis-1,3-Dichloropropene	U		0.000918	0.00303	1	05/16/2020 15:39	WG1477251
trans-1,3-Dichloropropene	U		0.00138	0.00606	1	05/16/2020 15:39	WG1477251
2,2-Dichloropropane	U		0.00167	0.00303	1	05/16/2020 15:39	WG1477251
Di-isopropyl ether	U		0.000497	0.00121	1	05/16/2020 15:39	WG1477251
Ethylbenzene	U		0.000894	0.00303	1	05/16/2020 15:39	WG1477251
Hexachloro-1,3-butadiene	U		0.00728	0.0303	1	05/16/2020 15:39	WG1477251
Isopropylbenzene	U	J4	0.000515	0.00303	1	05/16/2020 15:39	WG1477251
p-Isopropyltoluene	U		0.00309	0.00606	1	05/16/2020 15:39	WG1477251
2-Butanone (MEK)	U		0.0770	0.121	1	05/16/2020 15:39	WG1477251
Methylene Chloride	U		0.00805	0.0303	1	05/16/2020 15:39	WG1477251
4-Methyl-2-pentanone (MIBK)	U		0.00276	0.0303	1	05/16/2020 15:39	WG1477251
Methyl tert-butyl ether	U		0.000424	0.00121	1	05/16/2020 15:39	WG1477251
Naphthalene	U		0.00592	0.0152	1	05/16/2020 15:39	WG1477251
n-Propylbenzene	U		0.00115	0.00606	1	05/16/2020 15:39	WG1477251
Styrene	U		0.000278	0.0152	1	05/16/2020 15:39	WG1477251
1,1,1,2-Tetrachloroethane	U		0.00115	0.00303	1	05/16/2020 15:39	WG1477251
1,1,2,2-Tetrachloroethane	U		0.000843	0.00303	1	05/16/2020 15:39	WG1477251

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000914	0.00303	1	05/16/2020 15:39	WG1477251
Tetrachloroethene	U		0.00109	0.00303	1	05/16/2020 15:39	WG1477251
Toluene	0.00258	J	0.00158	0.00606	1	05/16/2020 15:39	WG1477251
1,2,3-Trichlorobenzene	U		0.00889	0.0152	1	05/16/2020 15:39	WG1477251
1,2,4-Trichlorobenzene	U		0.00534	0.0152	1	05/16/2020 15:39	WG1477251
1,1,1-Trichloroethane	U		0.00112	0.00303	1	05/16/2020 15:39	WG1477251
1,1,2-Trichloroethane	U		0.000724	0.00303	1	05/16/2020 15:39	WG1477251
Trichloroethene	U		0.000708	0.00121	1	05/16/2020 15:39	WG1477251
Trichlorofluoromethane	U		0.00100	0.00303	1	05/16/2020 15:39	WG1477251
1,2,3-Trichloropropane	U		0.00196	0.0152	1	05/16/2020 15:39	WG1477251
1,2,4-Trimethylbenzene	U		0.00192	0.00606	1	05/16/2020 15:39	WG1477251
1,2,3-Trimethylbenzene	U		0.00192	0.00606	1	05/16/2020 15:39	WG1477251
1,3,5-Trimethylbenzene	U		0.00243	0.00606	1	05/16/2020 15:39	WG1477251
Vinyl chloride	U		0.00141	0.00303	1	05/16/2020 15:39	WG1477251
Xylenes, Total	0.00165	J	0.00107	0.00788	1	05/16/2020 15:39	WG1477251
(S) Toluene-d8	*104*			*75.0-131*		*05/16/2020 15:39*	WG1477251
(S) 4-Bromofluorobenzene	*82.6*			*67.0-138*		*05/16/2020 15:39*	WG1477251
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*05/16/2020 15:39*	WG1477251

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.889	4.85	1	05/18/2020 21:57	WG1477297
C22-C32 Hydrocarbons	U		1.61	4.85	1	05/18/2020 21:57	WG1477297
C32-C40 Hydrocarbons	U		1.61	4.85	1	05/18/2020 21:57	WG1477297
(S) o-Terphenyl	*109*			*18.0-148*		*05/18/2020 21:57*	WG1477297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.4		1	05/19/2020 21:54	WG1478937

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0418	0.0572	1	05/16/2020 15:59	WG1477251
Acrylonitrile	U		0.00413	0.0143	1	05/16/2020 15:59	WG1477251
Benzene	0.000881	J	0.000534	0.00114	1	05/16/2020 15:59	WG1477251
Bromobenzene	U		0.00103	0.0143	1	05/16/2020 15:59	WG1477251
Bromodichloromethane	U		0.000830	0.00286	1	05/16/2020 15:59	WG1477251
Bromoform	U		0.00134	0.0286	1	05/16/2020 15:59	WG1477251
Bromomethane	U		0.00225	0.0143	1	05/16/2020 15:59	WG1477251
n-Butylbenzene	U		0.00601	0.0143	1	05/16/2020 15:59	WG1477251
sec-Butylbenzene	U		0.00330	0.0143	1	05/16/2020 15:59	WG1477251
tert-Butylbenzene	U		0.00223	0.00572	1	05/16/2020 15:59	WG1477251
Carbon tetrachloride	U		0.00103	0.00572	1	05/16/2020 15:59	WG1477251
Chlorobenzene	U		0.000240	0.00286	1	05/16/2020 15:59	WG1477251
Chlorodibromomethane	U		0.000700	0.00286	1	05/16/2020 15:59	WG1477251
Chloroethane	U		0.00195	0.00572	1	05/16/2020 15:59	WG1477251
Chloroform	U		0.00118	0.00286	1	05/16/2020 15:59	WG1477251
Chloromethane	U		0.00498	0.0143	1	05/16/2020 15:59	WG1477251
2-Chlorotoluene	U		0.000990	0.00286	1	05/16/2020 15:59	WG1477251
4-Chlorotoluene	U		0.000515	0.00572	1	05/16/2020 15:59	WG1477251
1,2-Dibromo-3-Chloropropane	U		0.00446	0.0286	1	05/16/2020 15:59	WG1477251
1,2-Dibromoethane	U		0.000741	0.00286	1	05/16/2020 15:59	WG1477251
Dibromomethane	U		0.000858	0.00572	1	05/16/2020 15:59	WG1477251
1,2-Dichlorobenzene	U		0.000486	0.00572	1	05/16/2020 15:59	WG1477251
1,3-Dichlorobenzene	U		0.000686	0.00572	1	05/16/2020 15:59	WG1477251
1,4-Dichlorobenzene	U		0.000801	0.00572	1	05/16/2020 15:59	WG1477251
Dichlorodifluoromethane	U		0.00184	0.00286	1	05/16/2020 15:59	WG1477251
1,1-Dichloroethane	U		0.000562	0.00286	1	05/16/2020 15:59	WG1477251
1,2-Dichloroethane	U		0.000743	0.00286	1	05/16/2020 15:59	WG1477251
1,1-Dichloroethene	U		0.000693	0.00286	1	05/16/2020 15:59	WG1477251
cis-1,2-Dichloroethene	U		0.000840	0.00286	1	05/16/2020 15:59	WG1477251
trans-1,2-Dichloroethene	U		0.00119	0.00572	1	05/16/2020 15:59	WG1477251
1,2-Dichloropropane	U		0.00162	0.00572	1	05/16/2020 15:59	WG1477251
1,1-Dichloropropene	U		0.000926	0.00286	1	05/16/2020 15:59	WG1477251
1,3-Dichloropropane	U		0.000573	0.00572	1	05/16/2020 15:59	WG1477251
cis-1,3-Dichloropropene	U		0.000866	0.00286	1	05/16/2020 15:59	WG1477251
trans-1,3-Dichloropropene	U		0.00130	0.00572	1	05/16/2020 15:59	WG1477251
2,2-Dichloropropane	U		0.00158	0.00286	1	05/16/2020 15:59	WG1477251
Di-isopropyl ether	U		0.000469	0.00114	1	05/16/2020 15:59	WG1477251
Ethylbenzene	U		0.000843	0.00286	1	05/16/2020 15:59	WG1477251
Hexachloro-1,3-butadiene	U		0.00686	0.0286	1	05/16/2020 15:59	WG1477251
Isopropylbenzene	U	J4	0.000486	0.00286	1	05/16/2020 15:59	WG1477251
p-Isopropyltoluene	U		0.00292	0.00572	1	05/16/2020 15:59	WG1477251
2-Butanone (MEK)	U		0.0727	0.114	1	05/16/2020 15:59	WG1477251
Methylene Chloride	U		0.00760	0.0286	1	05/16/2020 15:59	WG1477251
4-Methyl-2-pentanone (MIBK)	U		0.00261	0.0286	1	05/16/2020 15:59	WG1477251
Methyl tert-butyl ether	U		0.000400	0.00114	1	05/16/2020 15:59	WG1477251
Naphthalene	U		0.00558	0.0143	1	05/16/2020 15:59	WG1477251
n-Propylbenzene	U		0.00109	0.00572	1	05/16/2020 15:59	WG1477251
Styrene	U		0.000262	0.0143	1	05/16/2020 15:59	WG1477251
1,1,1,2-Tetrachloroethane	U		0.00108	0.00286	1	05/16/2020 15:59	WG1477251
1,1,2,2-Tetrachloroethane	U		0.000795	0.00286	1	05/16/2020 15:59	WG1477251

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000863	0.00286	1	05/16/2020 15:59	WG1477251
Tetrachloroethene	U		0.00103	0.00286	1	05/16/2020 15:59	WG1477251
Toluene	0.00252	J	0.00149	0.00572	1	05/16/2020 15:59	WG1477251
1,2,3-Trichlorobenzene	U		0.00839	0.0143	1	05/16/2020 15:59	WG1477251
1,2,4-Trichlorobenzene	U		0.00503	0.0143	1	05/16/2020 15:59	WG1477251
1,1,1-Trichloroethane	U		0.00106	0.00286	1	05/16/2020 15:59	WG1477251
1,1,2-Trichloroethane	U		0.000683	0.00286	1	05/16/2020 15:59	WG1477251
Trichloroethene	U		0.000668	0.00114	1	05/16/2020 15:59	WG1477251
Trichlorofluoromethane	U		0.000946	0.00286	1	05/16/2020 15:59	WG1477251
1,2,3-Trichloropropane	U		0.00185	0.0143	1	05/16/2020 15:59	WG1477251
1,2,4-Trimethylbenzene	U		0.00181	0.00572	1	05/16/2020 15:59	WG1477251
1,2,3-Trimethylbenzene	U		0.00181	0.00572	1	05/16/2020 15:59	WG1477251
1,3,5-Trimethylbenzene	U		0.00229	0.00572	1	05/16/2020 15:59	WG1477251
Vinyl chloride	U		0.00133	0.00286	1	05/16/2020 15:59	WG1477251
Xylenes, Total	U		0.00101	0.00744	1	05/16/2020 15:59	WG1477251
(S) Toluene-d8	*99.6*			*75.0-131*		*05/16/2020 15:59*	WG1477251
(S) 4-Bromofluorobenzene	*81.8*			*67.0-138*		*05/16/2020 15:59*	WG1477251
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*05/16/2020 15:59*	WG1477251

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	3.56	J	0.839	4.58	1	05/18/2020 22:11	WG1477297
C22-C32 Hydrocarbons	U		1.52	4.58	1	05/18/2020 22:11	WG1477297
C32-C40 Hydrocarbons	U		1.52	4.58	1	05/18/2020 22:11	WG1477297
(S) o-Terphenyl	*115*			*18.0-148*		*05/18/2020 22:11*	WG1477297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.7		1	05/19/2020 21:54	WG1478937

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0402	0.0551	1	05/16/2020 16:19	WG1477251
Acrylonitrile	U		0.00398	0.0138	1	05/16/2020 16:19	WG1477251
Benzene	U		0.000515	0.00110	1	05/16/2020 16:19	WG1477251
Bromobenzene	U		0.000992	0.0138	1	05/16/2020 16:19	WG1477251
Bromodichloromethane	U		0.000799	0.00276	1	05/16/2020 16:19	WG1477251
Bromoform	U		0.00129	0.0276	1	05/16/2020 16:19	WG1477251
Bromomethane	U		0.00217	0.0138	1	05/16/2020 16:19	WG1477251
n-Butylbenzene	U		0.00579	0.0138	1	05/16/2020 16:19	WG1477251
sec-Butylbenzene	U		0.00318	0.0138	1	05/16/2020 16:19	WG1477251
tert-Butylbenzene	U		0.00215	0.00551	1	05/16/2020 16:19	WG1477251
Carbon tetrachloride	U		0.000990	0.00551	1	05/16/2020 16:19	WG1477251
Chlorobenzene	U		0.000232	0.00276	1	05/16/2020 16:19	WG1477251
Chlorodibromomethane	U		0.000675	0.00276	1	05/16/2020 16:19	WG1477251
Chloroethane	U		0.00187	0.00551	1	05/16/2020 16:19	WG1477251
Chloroform	U		0.00114	0.00276	1	05/16/2020 16:19	WG1477251
Chloromethane	U		0.00480	0.0138	1	05/16/2020 16:19	WG1477251
2-Chlorotoluene	U		0.000954	0.00276	1	05/16/2020 16:19	WG1477251
4-Chlorotoluene	U		0.000496	0.00551	1	05/16/2020 16:19	WG1477251
1,2-Dibromo-3-Chloropropane	U		0.00430	0.0276	1	05/16/2020 16:19	WG1477251
1,2-Dibromoethane	U		0.000714	0.00276	1	05/16/2020 16:19	WG1477251
Dibromomethane	U		0.000827	0.00551	1	05/16/2020 16:19	WG1477251
1,2-Dichlorobenzene	U		0.000469	0.00551	1	05/16/2020 16:19	WG1477251
1,3-Dichlorobenzene	U		0.000662	0.00551	1	05/16/2020 16:19	WG1477251
1,4-Dichlorobenzene	U		0.000772	0.00551	1	05/16/2020 16:19	WG1477251
Dichlorodifluoromethane	U		0.00178	0.00276	1	05/16/2020 16:19	WG1477251
1,1-Dichloroethane	U		0.000541	0.00276	1	05/16/2020 16:19	WG1477251
1,2-Dichloroethane	U		0.000716	0.00276	1	05/16/2020 16:19	WG1477251
1,1-Dichloroethene	U		0.000668	0.00276	1	05/16/2020 16:19	WG1477251
cis-1,2-Dichloroethene	U		0.000809	0.00276	1	05/16/2020 16:19	WG1477251
trans-1,2-Dichloroethene	U		0.00115	0.00551	1	05/16/2020 16:19	WG1477251
1,2-Dichloropropane	U		0.00157	0.00551	1	05/16/2020 16:19	WG1477251
1,1-Dichloropropene	U		0.000892	0.00276	1	05/16/2020 16:19	WG1477251
1,3-Dichloropropane	U		0.000552	0.00551	1	05/16/2020 16:19	WG1477251
cis-1,3-Dichloropropene	U		0.000835	0.00276	1	05/16/2020 16:19	WG1477251
trans-1,3-Dichloropropene	U		0.00126	0.00551	1	05/16/2020 16:19	WG1477251
2,2-Dichloropropane	U		0.00152	0.00276	1	05/16/2020 16:19	WG1477251
Di-isopropyl ether	U		0.000452	0.00110	1	05/16/2020 16:19	WG1477251
Ethylbenzene	U		0.000813	0.00276	1	05/16/2020 16:19	WG1477251
Hexachloro-1,3-butadiene	U		0.00662	0.0276	1	05/16/2020 16:19	WG1477251
Isopropylbenzene	U	J4	0.000469	0.00276	1	05/16/2020 16:19	WG1477251
p-Isopropyltoluene	U		0.00281	0.00551	1	05/16/2020 16:19	WG1477251
2-Butanone (MEK)	U		0.0700	0.110	1	05/16/2020 16:19	WG1477251
Methylene Chloride	U		0.00732	0.0276	1	05/16/2020 16:19	WG1477251
4-Methyl-2-pentanone (MIBK)	U		0.00251	0.0276	1	05/16/2020 16:19	WG1477251
Methyl tert-butyl ether	U		0.000386	0.00110	1	05/16/2020 16:19	WG1477251
Naphthalene	U		0.00538	0.0138	1	05/16/2020 16:19	WG1477251
n-Propylbenzene	U		0.00105	0.00551	1	05/16/2020 16:19	WG1477251
Styrene	U		0.000252	0.0138	1	05/16/2020 16:19	WG1477251
1,1,1,2-Tetrachloroethane	U		0.00105	0.00276	1	05/16/2020 16:19	WG1477251
1,1,2,2-Tetrachloroethane	U		0.000766	0.00276	1	05/16/2020 16:19	WG1477251

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000831	0.00276	1	05/16/2020 16:19	WG1477251
Tetrachloroethene	U		0.000988	0.00276	1	05/16/2020 16:19	WG1477251
Toluene	U		0.00143	0.00551	1	05/16/2020 16:19	WG1477251
1,2,3-Trichlorobenzene	U		0.00808	0.0138	1	05/16/2020 16:19	WG1477251
1,2,4-Trichlorobenzene	U		0.00485	0.0138	1	05/16/2020 16:19	WG1477251
1,1,1-Trichloroethane	U		0.00102	0.00276	1	05/16/2020 16:19	WG1477251
1,1,2-Trichloroethane	U		0.000658	0.00276	1	05/16/2020 16:19	WG1477251
Trichloroethene	U		0.000644	0.00110	1	05/16/2020 16:19	WG1477251
Trichlorofluoromethane	U		0.000912	0.00276	1	05/16/2020 16:19	WG1477251
1,2,3-Trichloropropane	U		0.00179	0.0138	1	05/16/2020 16:19	WG1477251
1,2,4-Trimethylbenzene	U		0.00174	0.00551	1	05/16/2020 16:19	WG1477251
1,2,3-Trimethylbenzene	U		0.00174	0.00551	1	05/16/2020 16:19	WG1477251
1,3,5-Trimethylbenzene	U		0.00221	0.00551	1	05/16/2020 16:19	WG1477251
Vinyl chloride	U		0.00128	0.00276	1	05/16/2020 16:19	WG1477251
Xylenes, Total	U		0.000970	0.00717	1	05/16/2020 16:19	WG1477251
(S) Toluene-d8	*104*			*75.0-131*		*05/16/2020 16:19*	WG1477251
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*05/16/2020 16:19*	WG1477251
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*05/16/2020 16:19*	WG1477251

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.808	4.41	1	05/18/2020 22:26	WG1477297
C22-C32 Hydrocarbons	U		1.47	4.41	1	05/18/2020 22:26	WG1477297
C32-C40 Hydrocarbons	U		1.47	4.41	1	05/18/2020 22:26	WG1477297
(S) o-Terphenyl	*104*			*18.0-148*		*05/18/2020 22:26*	WG1477297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.9		1	05/19/2020 21:54	WG1478937

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.110		0.0207	0.0460	1	05/18/2020 09:54	WG1477007

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.575	2.30	1	05/16/2020 19:11	WG1477073
Arsenic	6.54		0.529	2.30	1	05/16/2020 19:11	WG1477073
Barium	168		0.276	0.575	1	05/16/2020 19:11	WG1477073
Beryllium	0.454		0.0921	0.230	1	05/16/2020 19:11	WG1477073
Cadmium	0.781		0.0932	0.575	1	05/16/2020 19:11	WG1477073
Chromium	50.9		0.288	1.15	1	05/16/2020 19:11	WG1477073
Cobalt	12.2		0.265	1.15	1	05/16/2020 19:11	WG1477073
Copper	39.9		0.582	2.30	1	05/16/2020 19:11	WG1477073
Lead	13.7		0.239	0.575	1	05/16/2020 19:11	WG1477073
Molybdenum	U		0.230	0.575	1	05/16/2020 19:11	WG1477073
Nickel	80.1		0.564	2.30	1	05/16/2020 19:11	WG1477073
Selenium	0.738	J	0.710	2.30	1	05/16/2020 19:11	WG1477073
Silver	U		0.262	1.15	1	05/16/2020 19:11	WG1477073
Thallium	U		0.407	2.30	1	05/16/2020 19:11	WG1477073
Vanadium	47.5		0.791	2.30	1	05/16/2020 19:11	WG1477073
Zinc	68.4		1.08	5.75	1	05/16/2020 19:11	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0420	0.0575	1	05/16/2020 16:40	WG1477251
Acrylonitrile	U		0.00415	0.0144	1	05/16/2020 16:40	WG1477251
Benzene	U		0.000537	0.00115	1	05/16/2020 16:40	WG1477251
Bromobenzene	U		0.00104	0.0144	1	05/16/2020 16:40	WG1477251
Bromodichloromethane	U		0.000834	0.00288	1	05/16/2020 16:40	WG1477251
Bromoform	U		0.00135	0.0288	1	05/16/2020 16:40	WG1477251
Bromomethane	U		0.00227	0.0144	1	05/16/2020 16:40	WG1477251
n-Butylbenzene	U		0.00604	0.0144	1	05/16/2020 16:40	WG1477251
sec-Butylbenzene	U		0.00331	0.0144	1	05/16/2020 16:40	WG1477251
tert-Butylbenzene	U		0.00224	0.00575	1	05/16/2020 16:40	WG1477251
Carbon tetrachloride	U		0.00103	0.00575	1	05/16/2020 16:40	WG1477251
Chlorobenzene	U		0.000242	0.00288	1	05/16/2020 16:40	WG1477251
Chlorodibromomethane	U		0.000704	0.00288	1	05/16/2020 16:40	WG1477251
Chloroethane	U		0.00196	0.00575	1	05/16/2020 16:40	WG1477251
Chloroform	U		0.00119	0.00288	1	05/16/2020 16:40	WG1477251
Chloromethane	U		0.00501	0.0144	1	05/16/2020 16:40	WG1477251
2-Chlorotoluene	U		0.000995	0.00288	1	05/16/2020 16:40	WG1477251
4-Chlorotoluene	U		0.000518	0.00575	1	05/16/2020 16:40	WG1477251
1,2-Dibromo-3-Chloropropane	U		0.00449	0.0288	1	05/16/2020 16:40	WG1477251
1,2-Dibromoethane	U		0.000746	0.00288	1	05/16/2020 16:40	WG1477251
Dibromomethane	U		0.000863	0.00575	1	05/16/2020 16:40	WG1477251
1,2-Dichlorobenzene	U		0.000489	0.00575	1	05/16/2020 16:40	WG1477251
1,3-Dichlorobenzene	U		0.000691	0.00575	1	05/16/2020 16:40	WG1477251
1,4-Dichlorobenzene	U		0.000806	0.00575	1	05/16/2020 16:40	WG1477251

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00185	0.00288	1	05/16/2020 16:40	WG1477251
1,1-Dichloroethane	U		0.000565	0.00288	1	05/16/2020 16:40	WG1477251
1,2-Dichloroethane	U		0.000747	0.00288	1	05/16/2020 16:40	WG1477251
1,1-Dichloroethene	U		0.000697	0.00288	1	05/16/2020 16:40	WG1477251
cis-1,2-Dichloroethene	U		0.000845	0.00288	1	05/16/2020 16:40	WG1477251
trans-1,2-Dichloroethene	U		0.00120	0.00575	1	05/16/2020 16:40	WG1477251
1,2-Dichloropropane	U		0.00163	0.00575	1	05/16/2020 16:40	WG1477251
1,1-Dichloropropene	U		0.000931	0.00288	1	05/16/2020 16:40	WG1477251
1,3-Dichloropropane	U		0.000577	0.00575	1	05/16/2020 16:40	WG1477251
cis-1,3-Dichloropropene	U		0.000871	0.00288	1	05/16/2020 16:40	WG1477251
trans-1,3-Dichloropropene	U		0.00131	0.00575	1	05/16/2020 16:40	WG1477251
2,2-Dichloropropane	U		0.00159	0.00288	1	05/16/2020 16:40	WG1477251
Di-isopropyl ether	U		0.000472	0.00115	1	05/16/2020 16:40	WG1477251
Ethylbenzene	U		0.000848	0.00288	1	05/16/2020 16:40	WG1477251
Hexachloro-1,3-butadiene	U		0.00691	0.0288	1	05/16/2020 16:40	WG1477251
Isopropylbenzene	U	J4	0.000489	0.00288	1	05/16/2020 16:40	WG1477251
p-Isopropyltoluene	U		0.00293	0.00575	1	05/16/2020 16:40	WG1477251
2-Butanone (MEK)	U		0.0731	0.115	1	05/16/2020 16:40	WG1477251
Methylene Chloride	U		0.00764	0.0288	1	05/16/2020 16:40	WG1477251
4-Methyl-2-pentanone (MIBK)	U		0.00262	0.0288	1	05/16/2020 16:40	WG1477251
Methyl tert-butyl ether	U		0.000403	0.00115	1	05/16/2020 16:40	WG1477251
Naphthalene	U		0.00562	0.0144	1	05/16/2020 16:40	WG1477251
n-Propylbenzene	U		0.00109	0.00575	1	05/16/2020 16:40	WG1477251
Styrene	0.00106	J	0.000264	0.0144	1	05/16/2020 16:40	WG1477251
1,1,1,2-Tetrachloroethane	U		0.00109	0.00288	1	05/16/2020 16:40	WG1477251
1,1,2,2-Tetrachloroethane	U		0.000800	0.00288	1	05/16/2020 16:40	WG1477251
1,1,2-Trichlorotrifluoroethane	U		0.000868	0.00288	1	05/16/2020 16:40	WG1477251
Tetrachloroethene	U		0.00103	0.00288	1	05/16/2020 16:40	WG1477251
Toluene	U		0.00150	0.00575	1	05/16/2020 16:40	WG1477251
1,2,3-Trichlorobenzene	U		0.00844	0.0144	1	05/16/2020 16:40	WG1477251
1,2,4-Trichlorobenzene	U		0.00506	0.0144	1	05/16/2020 16:40	WG1477251
1,1,1-Trichloroethane	U		0.00106	0.00288	1	05/16/2020 16:40	WG1477251
1,1,2-Trichloroethane	U		0.000687	0.00288	1	05/16/2020 16:40	WG1477251
Trichloroethene	U		0.000672	0.00115	1	05/16/2020 16:40	WG1477251
Trichlorofluoromethane	U		0.000952	0.00288	1	05/16/2020 16:40	WG1477251
1,2,3-Trichloropropane	U		0.00186	0.0144	1	05/16/2020 16:40	WG1477251
1,2,4-Trimethylbenzene	U		0.00182	0.00575	1	05/16/2020 16:40	WG1477251
1,2,3-Trimethylbenzene	U		0.00182	0.00575	1	05/16/2020 16:40	WG1477251
1,3,5-Trimethylbenzene	U		0.00230	0.00575	1	05/16/2020 16:40	WG1477251
Vinyl chloride	U		0.00133	0.00288	1	05/16/2020 16:40	WG1477251
Xylenes, Total	0.00162	J	0.00101	0.00748	1	05/16/2020 16:40	WG1477251
(S) Toluene-d8	*109*			*75.0-131*		*05/16/2020 16:40*	WG1477251
(S) 4-Bromofluorobenzene	*90.4*			*67.0-138*		*05/16/2020 16:40*	WG1477251
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*05/16/2020 16:40*	WG1477251

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.844	4.60	1	05/18/2020 22:41	WG1477297
C22-C32 Hydrocarbons	2.35	J	1.53	4.60	1	05/18/2020 22:41	WG1477297
C32-C40 Hydrocarbons	U		1.53	4.60	1	05/18/2020 22:41	WG1477297
(S) o-Terphenyl	*128*			*18.0-148*		*05/18/2020 22:41*	WG1477297

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0136	0.0391	1	05/18/2020 14:04	WG1477089
PCB 1221	U		0.0136	0.0391	1	05/18/2020 14:04	WG1477089
PCB 1232	U		0.0136	0.0391	1	05/18/2020 14:04	WG1477089
PCB 1242	U		0.0136	0.0391	1	05/18/2020 14:04	WG1477089
PCB 1248	U		0.00849	0.0196	1	05/18/2020 14:04	WG1477089
PCB 1254	U		0.00849	0.0196	1	05/18/2020 14:04	WG1477089
PCB 1260	U		0.00849	0.0196	1	05/18/2020 14:04	WG1477089
(S) Decachlorobiphenyl	*82.4*			*10.0-135*		*05/18/2020 14:04*	WG1477089
(S) Tetrachloro-m-xylene	*88.8*			*10.0-139*		*05/18/2020 14:04*	WG1477089

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.2		1	05/19/2020 21:54	WG1478937

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0536		0.0216	0.0481	1	05/18/2020 10:46	WG1477007

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.601	2.40	1	05/16/2020 19:14	WG1477073
Arsenic	12.2		0.553	2.40	1	05/16/2020 19:14	WG1477073
Barium	169		0.289	0.601	1	05/16/2020 19:14	WG1477073
Beryllium	0.501		0.0962	0.240	1	05/16/2020 19:14	WG1477073
Cadmium	0.694		0.0974	0.601	1	05/16/2020 19:14	WG1477073
Chromium	48.8		0.301	1.20	1	05/16/2020 19:14	WG1477073
Cobalt	12.0		0.276	1.20	1	05/16/2020 19:14	WG1477073
Copper	33.9		0.608	2.40	1	05/16/2020 19:14	WG1477073
Lead	8.91		0.250	0.601	1	05/16/2020 19:14	WG1477073
Molybdenum	0.304	J	0.240	0.601	1	05/16/2020 19:14	WG1477073
Nickel	74.4		0.589	2.40	1	05/16/2020 19:14	WG1477073
Selenium	U		0.742	2.40	1	05/16/2020 19:14	WG1477073
Silver	U		0.274	1.20	1	05/16/2020 19:14	WG1477073
Thallium	U		0.426	2.40	1	05/16/2020 19:14	WG1477073
Vanadium	49.3		0.826	2.40	1	05/16/2020 19:14	WG1477073
Zinc	66.0		1.13	6.01	1	05/16/2020 19:14	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0439	0.0601	1	05/16/2020 17:00	WG1477251
Acrylonitrile	U		0.00434	0.0150	1	05/16/2020 17:00	WG1477251
Benzene	U		0.000561	0.00120	1	05/16/2020 17:00	WG1477251
Bromobenzene	U		0.00108	0.0150	1	05/16/2020 17:00	WG1477251
Bromodichloromethane	U		0.000872	0.00301	1	05/16/2020 17:00	WG1477251
Bromoform	U		0.00141	0.0301	1	05/16/2020 17:00	WG1477251
Bromomethane	U		0.00237	0.0150	1	05/16/2020 17:00	WG1477251
n-Butylbenzene	U		0.00631	0.0150	1	05/16/2020 17:00	WG1477251
sec-Butylbenzene	U		0.00346	0.0150	1	05/16/2020 17:00	WG1477251
tert-Butylbenzene	U		0.00234	0.00601	1	05/16/2020 17:00	WG1477251
Carbon tetrachloride	U		0.00108	0.00601	1	05/16/2020 17:00	WG1477251
Chlorobenzene	U		0.000252	0.00301	1	05/16/2020 17:00	WG1477251
Chlorodibromomethane	U		0.000736	0.00301	1	05/16/2020 17:00	WG1477251
Chloroethane	U		0.00204	0.00601	1	05/16/2020 17:00	WG1477251
Chloroform	U		0.00124	0.00301	1	05/16/2020 17:00	WG1477251
Chloromethane	U		0.00523	0.0150	1	05/16/2020 17:00	WG1477251
2-Chlorotoluene	U		0.00104	0.00301	1	05/16/2020 17:00	WG1477251
4-Chlorotoluene	U		0.000541	0.00601	1	05/16/2020 17:00	WG1477251
1,2-Dibromo-3-Chloropropane	U		0.00469	0.0301	1	05/16/2020 17:00	WG1477251
1,2-Dibromoethane	U		0.000779	0.00301	1	05/16/2020 17:00	WG1477251
Dibromomethane	U		0.000902	0.00601	1	05/16/2020 17:00	WG1477251
1,2-Dichlorobenzene	U		0.000511	0.00601	1	05/16/2020 17:00	WG1477251
1,3-Dichlorobenzene	U		0.000721	0.00601	1	05/16/2020 17:00	WG1477251
1,4-Dichlorobenzene	U		0.000841	0.00601	1	05/16/2020 17:00	WG1477251

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00194	0.00301	1	05/16/2020 17:00	WG1477251
1,1-Dichloroethane	U		0.000590	0.00301	1	05/16/2020 17:00	WG1477251
1,2-Dichloroethane	U		0.000780	0.00301	1	05/16/2020 17:00	WG1477251
1,1-Dichloroethene	U		0.000728	0.00301	1	05/16/2020 17:00	WG1477251
cis-1,2-Dichloroethene	U		0.000882	0.00301	1	05/16/2020 17:00	WG1477251
trans-1,2-Dichloroethene	U		0.00125	0.00601	1	05/16/2020 17:00	WG1477251
1,2-Dichloropropane	U		0.00171	0.00601	1	05/16/2020 17:00	WG1477251
1,1-Dichloropropene	U		0.000973	0.00301	1	05/16/2020 17:00	WG1477251
1,3-Dichloropropane	U		0.000602	0.00601	1	05/16/2020 17:00	WG1477251
cis-1,3-Dichloropropene	U		0.000910	0.00301	1	05/16/2020 17:00	WG1477251
trans-1,3-Dichloropropene	U		0.00137	0.00601	1	05/16/2020 17:00	WG1477251
2,2-Dichloropropane	U		0.00166	0.00301	1	05/16/2020 17:00	WG1477251
Di-isopropyl ether	U		0.000493	0.00120	1	05/16/2020 17:00	WG1477251
Ethylbenzene	U		0.000886	0.00301	1	05/16/2020 17:00	WG1477251
Hexachloro-1,3-butadiene	U		0.00721	0.0301	1	05/16/2020 17:00	WG1477251
Isopropylbenzene	U	J4	0.000511	0.00301	1	05/16/2020 17:00	WG1477251
p-Isopropyltoluene	U		0.00307	0.00601	1	05/16/2020 17:00	WG1477251
2-Butanone (MEK)	U		0.0763	0.120	1	05/16/2020 17:00	WG1477251
Methylene Chloride	U		0.00798	0.0301	1	05/16/2020 17:00	WG1477251
4-Methyl-2-pentanone (MIBK)	U		0.00274	0.0301	1	05/16/2020 17:00	WG1477251
Methyl tert-butyl ether	U		0.000421	0.00120	1	05/16/2020 17:00	WG1477251
Naphthalene	U		0.00587	0.0150	1	05/16/2020 17:00	WG1477251
n-Propylbenzene	U		0.00114	0.00601	1	05/16/2020 17:00	WG1477251
Styrene	U		0.000275	0.0150	1	05/16/2020 17:00	WG1477251
1,1,1,2-Tetrachloroethane	U		0.00114	0.00301	1	05/16/2020 17:00	WG1477251
1,1,2,2-Tetrachloroethane	U		0.000835	0.00301	1	05/16/2020 17:00	WG1477251
1,1,2-Trichlorotrifluoroethane	U		0.000906	0.00301	1	05/16/2020 17:00	WG1477251
Tetrachloroethene	U		0.00108	0.00301	1	05/16/2020 17:00	WG1477251
Toluene	U		0.00156	0.00601	1	05/16/2020 17:00	WG1477251
1,2,3-Trichlorobenzene	U		0.00881	0.0150	1	05/16/2020 17:00	WG1477251
1,2,4-Trichlorobenzene	U		0.00529	0.0150	1	05/16/2020 17:00	WG1477251
1,1,1-Trichloroethane	U		0.00111	0.00301	1	05/16/2020 17:00	WG1477251
1,1,2-Trichloroethane	U		0.000718	0.00301	1	05/16/2020 17:00	WG1477251
Trichloroethene	U		0.000702	0.00120	1	05/16/2020 17:00	WG1477251
Trichlorofluoromethane	U		0.000994	0.00301	1	05/16/2020 17:00	WG1477251
1,2,3-Trichloropropane	U		0.00195	0.0150	1	05/16/2020 17:00	WG1477251
1,2,4-Trimethylbenzene	U		0.00190	0.00601	1	05/16/2020 17:00	WG1477251
1,2,3-Trimethylbenzene	U		0.00190	0.00601	1	05/16/2020 17:00	WG1477251
1,3,5-Trimethylbenzene	U		0.00240	0.00601	1	05/16/2020 17:00	WG1477251
Vinyl chloride	U		0.00139	0.00301	1	05/16/2020 17:00	WG1477251
Xylenes, Total	U		0.00106	0.00781	1	05/16/2020 17:00	WG1477251
(S) Toluene-d8	*102*			*75.0-131*		*05/16/2020 17:00*	WG1477251
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*05/16/2020 17:00*	WG1477251
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*05/16/2020 17:00*	WG1477251

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	2.97	J	0.881	4.81	1	05/18/2020 22:56	WG1477297
C22-C32 Hydrocarbons	U		1.60	4.81	1	05/18/2020 22:56	WG1477297
C32-C40 Hydrocarbons	U		1.60	4.81	1	05/18/2020 22:56	WG1477297
(S) o-Terphenyl	*101*			*18.0-148*		*05/18/2020 22:56*	WG1477297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.1		1	05/19/2020 21:54	WG1478937

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0419	0.0574	1	05/16/2020 17:20	WG1477251
Acrylonitrile	U		0.00415	0.0144	1	05/16/2020 17:20	WG1477251
Benzene	U		0.000536	0.00115	1	05/16/2020 17:20	WG1477251
Bromobenzene	U		0.00103	0.0144	1	05/16/2020 17:20	WG1477251
Bromodichloromethane	U		0.000833	0.00287	1	05/16/2020 17:20	WG1477251
Bromoform	U		0.00134	0.0287	1	05/16/2020 17:20	WG1477251
Bromomethane	U		0.00226	0.0144	1	05/16/2020 17:20	WG1477251
n-Butylbenzene	U		0.00603	0.0144	1	05/16/2020 17:20	WG1477251
sec-Butylbenzene	U		0.00331	0.0144	1	05/16/2020 17:20	WG1477251
tert-Butylbenzene	U		0.00224	0.00574	1	05/16/2020 17:20	WG1477251
Carbon tetrachloride	U		0.00103	0.00574	1	05/16/2020 17:20	WG1477251
Chlorobenzene	U		0.000241	0.00287	1	05/16/2020 17:20	WG1477251
Chlorodibromomethane	U		0.000703	0.00287	1	05/16/2020 17:20	WG1477251
Chloroethane	U		0.00195	0.00574	1	05/16/2020 17:20	WG1477251
Chloroform	U		0.00118	0.00287	1	05/16/2020 17:20	WG1477251
Chloromethane	U		0.00500	0.0144	1	05/16/2020 17:20	WG1477251
2-Chlorotoluene	U		0.000994	0.00287	1	05/16/2020 17:20	WG1477251
4-Chlorotoluene	U		0.000517	0.00574	1	05/16/2020 17:20	WG1477251
1,2-Dibromo-3-Chloropropane	U		0.00448	0.0287	1	05/16/2020 17:20	WG1477251
1,2-Dibromoethane	U		0.000744	0.00287	1	05/16/2020 17:20	WG1477251
Dibromomethane	U		0.000862	0.00574	1	05/16/2020 17:20	WG1477251
1,2-Dichlorobenzene	U		0.000488	0.00574	1	05/16/2020 17:20	WG1477251
1,3-Dichlorobenzene	U		0.000689	0.00574	1	05/16/2020 17:20	WG1477251
1,4-Dichlorobenzene	U		0.000804	0.00574	1	05/16/2020 17:20	WG1477251
Dichlorodifluoromethane	U		0.00185	0.00287	1	05/16/2020 17:20	WG1477251
1,1-Dichloroethane	U		0.000564	0.00287	1	05/16/2020 17:20	WG1477251
1,2-Dichloroethane	U		0.000746	0.00287	1	05/16/2020 17:20	WG1477251
1,1-Dichloroethene	U		0.000696	0.00287	1	05/16/2020 17:20	WG1477251
cis-1,2-Dichloroethene	U		0.000843	0.00287	1	05/16/2020 17:20	WG1477251
trans-1,2-Dichloroethene	U		0.00119	0.00574	1	05/16/2020 17:20	WG1477251
1,2-Dichloropropane	U		0.00163	0.00574	1	05/16/2020 17:20	WG1477251
1,1-Dichloropropene	U		0.000929	0.00287	1	05/16/2020 17:20	WG1477251
1,3-Dichloropropane	U		0.000576	0.00574	1	05/16/2020 17:20	WG1477251
cis-1,3-Dichloropropene	U		0.000870	0.00287	1	05/16/2020 17:20	WG1477251
trans-1,3-Dichloropropene	U		0.00131	0.00574	1	05/16/2020 17:20	WG1477251
2,2-Dichloropropane	U		0.00159	0.00287	1	05/16/2020 17:20	WG1477251
Di-isopropyl ether	U		0.000471	0.00115	1	05/16/2020 17:20	WG1477251
Ethylbenzene	U		0.000847	0.00287	1	05/16/2020 17:20	WG1477251
Hexachloro-1,3-butadiene	U		0.00689	0.0287	1	05/16/2020 17:20	WG1477251
Isopropylbenzene	U	J4	0.000488	0.00287	1	05/16/2020 17:20	WG1477251
p-Isopropyltoluene	U		0.00293	0.00574	1	05/16/2020 17:20	WG1477251
2-Butanone (MEK)	U		0.0729	0.115	1	05/16/2020 17:20	WG1477251
Methylene Chloride	U		0.00763	0.0287	1	05/16/2020 17:20	WG1477251
4-Methyl-2-pentanone (MIBK)	U		0.00262	0.0287	1	05/16/2020 17:20	WG1477251
Methyl tert-butyl ether	U		0.000402	0.00115	1	05/16/2020 17:20	WG1477251
Naphthalene	U		0.00561	0.0144	1	05/16/2020 17:20	WG1477251
n-Propylbenzene	U		0.00109	0.00574	1	05/16/2020 17:20	WG1477251
Styrene	U		0.000263	0.0144	1	05/16/2020 17:20	WG1477251
1,1,1,2-Tetrachloroethane	U		0.00109	0.00287	1	05/16/2020 17:20	WG1477251
1,1,2,2-Tetrachloroethane	U		0.000798	0.00287	1	05/16/2020 17:20	WG1477251

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000866	0.00287	1	05/16/2020 17:20	WG1477251
Tetrachloroethene	U		0.00103	0.00287	1	05/16/2020 17:20	WG1477251
Toluene	U		0.00149	0.00574	1	05/16/2020 17:20	WG1477251
1,2,3-Trichlorobenzene	U		0.00842	0.0144	1	05/16/2020 17:20	WG1477251
1,2,4-Trichlorobenzene	U		0.00505	0.0144	1	05/16/2020 17:20	WG1477251
1,1,1-Trichloroethane	U		0.00106	0.00287	1	05/16/2020 17:20	WG1477251
1,1,2-Trichloroethane	U		0.000686	0.00287	1	05/16/2020 17:20	WG1477251
Trichloroethene	U		0.000671	0.00115	1	05/16/2020 17:20	WG1477251
Trichlorofluoromethane	U		0.000950	0.00287	1	05/16/2020 17:20	WG1477251
1,2,3-Trichloropropane	U		0.00186	0.0144	1	05/16/2020 17:20	WG1477251
1,2,4-Trimethylbenzene	U		0.00182	0.00574	1	05/16/2020 17:20	WG1477251
1,2,3-Trimethylbenzene	U		0.00182	0.00574	1	05/16/2020 17:20	WG1477251
1,3,5-Trimethylbenzene	U		0.00230	0.00574	1	05/16/2020 17:20	WG1477251
Vinyl chloride	U		0.00133	0.00287	1	05/16/2020 17:20	WG1477251
Xylenes, Total	U		0.00101	0.00747	1	05/16/2020 17:20	WG1477251
(S) Toluene-d8	*103*			*75.0-131*		*05/16/2020 17:20*	WG1477251
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*05/16/2020 17:20*	WG1477251
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*05/16/2020 17:20*	WG1477251

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.842	4.59	1	05/18/2020 23:10	WG1477297
C22-C32 Hydrocarbons	U		1.53	4.59	1	05/18/2020 23:10	WG1477297
C32-C40 Hydrocarbons	U		1.53	4.59	1	05/18/2020 23:10	WG1477297
(S) o-Terphenyl	*112*			*18.0-148*		*05/18/2020 23:10*	WG1477297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.7		1	05/19/2020 22:11	WG1478938

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0390	0.0534	1	05/16/2020 17:41	WG1477251
Acrylonitrile	U		0.00385	0.0133	1	05/16/2020 17:41	WG1477251
Benzene	U		0.000499	0.00107	1	05/16/2020 17:41	WG1477251
Bromobenzene	U		0.000961	0.0133	1	05/16/2020 17:41	WG1477251
Bromodichloromethane	U		0.000774	0.00267	1	05/16/2020 17:41	WG1477251
Bromoform	U		0.00125	0.0267	1	05/16/2020 17:41	WG1477251
Bromomethane	U		0.00210	0.0133	1	05/16/2020 17:41	WG1477251
n-Butylbenzene	U		0.00561	0.0133	1	05/16/2020 17:41	WG1477251
sec-Butylbenzene	U		0.00308	0.0133	1	05/16/2020 17:41	WG1477251
tert-Butylbenzene	U		0.00208	0.00534	1	05/16/2020 17:41	WG1477251
Carbon tetrachloride	U		0.000959	0.00534	1	05/16/2020 17:41	WG1477251
Chlorobenzene	U		0.000224	0.00267	1	05/16/2020 17:41	WG1477251
Chlorodibromomethane	U		0.000653	0.00267	1	05/16/2020 17:41	WG1477251
Chloroethane	U		0.00182	0.00534	1	05/16/2020 17:41	WG1477251
Chloroform	U		0.00110	0.00267	1	05/16/2020 17:41	WG1477251
Chloromethane	U		0.00464	0.0133	1	05/16/2020 17:41	WG1477251
2-Chlorotoluene	U		0.000924	0.00267	1	05/16/2020 17:41	WG1477251
4-Chlorotoluene	U		0.000480	0.00534	1	05/16/2020 17:41	WG1477251
1,2-Dibromo-3-Chloropropane	U		0.00416	0.0267	1	05/16/2020 17:41	WG1477251
1,2-Dibromoethane	U		0.000692	0.00267	1	05/16/2020 17:41	WG1477251
Dibromomethane	U		0.000801	0.00534	1	05/16/2020 17:41	WG1477251
1,2-Dichlorobenzene	U		0.000454	0.00534	1	05/16/2020 17:41	WG1477251
1,3-Dichlorobenzene	U		0.000641	0.00534	1	05/16/2020 17:41	WG1477251
1,4-Dichlorobenzene	U		0.000747	0.00534	1	05/16/2020 17:41	WG1477251
Dichlorodifluoromethane	U		0.00172	0.00267	1	05/16/2020 17:41	WG1477251
1,1-Dichloroethane	U		0.000524	0.00267	1	05/16/2020 17:41	WG1477251
1,2-Dichloroethane	U		0.000693	0.00267	1	05/16/2020 17:41	WG1477251
1,1-Dichloroethene	U		0.000647	0.00267	1	05/16/2020 17:41	WG1477251
cis-1,2-Dichloroethene	U		0.000784	0.00267	1	05/16/2020 17:41	WG1477251
trans-1,2-Dichloroethene	U		0.00111	0.00534	1	05/16/2020 17:41	WG1477251
1,2-Dichloropropane	U		0.00152	0.00534	1	05/16/2020 17:41	WG1477251
1,1-Dichloropropene	U		0.000864	0.00267	1	05/16/2020 17:41	WG1477251
1,3-Dichloropropane	U		0.000535	0.00534	1	05/16/2020 17:41	WG1477251
cis-1,3-Dichloropropene	U		0.000808	0.00267	1	05/16/2020 17:41	WG1477251
trans-1,3-Dichloropropene	U		0.00122	0.00534	1	05/16/2020 17:41	WG1477251
2,2-Dichloropropane	U		0.00147	0.00267	1	05/16/2020 17:41	WG1477251
Di-isopropyl ether	U		0.000438	0.00107	1	05/16/2020 17:41	WG1477251
Ethylbenzene	U		0.000787	0.00267	1	05/16/2020 17:41	WG1477251
Hexachloro-1,3-butadiene	U		0.00641	0.0267	1	05/16/2020 17:41	WG1477251
Isopropylbenzene	U	J4	0.000454	0.00267	1	05/16/2020 17:41	WG1477251
p-Isopropyltoluene	U		0.00272	0.00534	1	05/16/2020 17:41	WG1477251
2-Butanone (MEK)	U		0.0678	0.107	1	05/16/2020 17:41	WG1477251
Methylene Chloride	U		0.00709	0.0267	1	05/16/2020 17:41	WG1477251
4-Methyl-2-pentanone (MIBK)	U		0.00243	0.0267	1	05/16/2020 17:41	WG1477251
Methyl tert-butyl ether	U		0.000374	0.00107	1	05/16/2020 17:41	WG1477251
Naphthalene	U		0.00521	0.0133	1	05/16/2020 17:41	WG1477251
n-Propylbenzene	U		0.00101	0.00534	1	05/16/2020 17:41	WG1477251
Styrene	U		0.000245	0.0133	1	05/16/2020 17:41	WG1477251
1,1,1,2-Tetrachloroethane	U		0.00101	0.00267	1	05/16/2020 17:41	WG1477251
1,1,2,2-Tetrachloroethane	U		0.000742	0.00267	1	05/16/2020 17:41	WG1477251

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000805	0.00267	1	05/16/2020 17:41	WG1477251
Tetrachloroethene	U		0.000957	0.00267	1	05/16/2020 17:41	WG1477251
Toluene	U		0.00139	0.00534	1	05/16/2020 17:41	WG1477251
1,2,3-Trichlorobenzene	U		0.00783	0.0133	1	05/16/2020 17:41	WG1477251
1,2,4-Trichlorobenzene	U		0.00470	0.0133	1	05/16/2020 17:41	WG1477251
1,1,1-Trichloroethane	U		0.000986	0.00267	1	05/16/2020 17:41	WG1477251
1,1,2-Trichloroethane	U		0.000637	0.00267	1	05/16/2020 17:41	WG1477251
Trichloroethene	U		0.000624	0.00107	1	05/16/2020 17:41	WG1477251
Trichlorofluoromethane	U		0.000883	0.00267	1	05/16/2020 17:41	WG1477251
1,2,3-Trichloropropane	U		0.00173	0.0133	1	05/16/2020 17:41	WG1477251
1,2,4-Trimethylbenzene	U		0.00169	0.00534	1	05/16/2020 17:41	WG1477251
1,2,3-Trimethylbenzene	U		0.00169	0.00534	1	05/16/2020 17:41	WG1477251
1,3,5-Trimethylbenzene	U		0.00214	0.00534	1	05/16/2020 17:41	WG1477251
Vinyl chloride	U		0.00124	0.00267	1	05/16/2020 17:41	WG1477251
Xylenes, Total	U		0.000940	0.00694	1	05/16/2020 17:41	WG1477251
(S) Toluene-d8	*102*			*75.0-131*		*05/16/2020 17:41*	WG1477251
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*05/16/2020 17:41*	WG1477251
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*05/16/2020 17:41*	WG1477251

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	1.08	J	0.783	4.27	1	05/18/2020 23:25	WG1477297
C22-C32 Hydrocarbons	U		1.42	4.27	1	05/18/2020 23:25	WG1477297
C32-C40 Hydrocarbons	U		1.42	4.27	1	05/18/2020 23:25	WG1477297
(S) o-Terphenyl	*90.8*			*18.0-148*		*05/18/2020 23:25*	WG1477297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.4		1	05/19/2020 22:11	WG1478938

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0594		0.0201	0.0447	1	05/18/2020 10:49	WG1477007

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.559	2.24	1	05/16/2020 19:17	WG1477073
Arsenic	5.27		0.514	2.24	1	05/16/2020 19:17	WG1477073
Barium	257		0.268	0.559	1	05/16/2020 19:17	WG1477073
Beryllium	0.388		0.0894	0.224	1	05/16/2020 19:17	WG1477073
Cadmium	0.521	J	0.0906	0.559	1	05/16/2020 19:17	WG1477073
Chromium	39.9		0.279	1.12	1	05/16/2020 19:17	WG1477073
Cobalt	12.6		0.257	1.12	1	05/16/2020 19:17	WG1477073
Copper	37.5		0.566	2.24	1	05/16/2020 19:17	WG1477073
Lead	11.2		0.233	0.559	1	05/16/2020 19:17	WG1477073
Molybdenum	U		0.224	0.559	1	05/16/2020 19:17	WG1477073
Nickel	65.5		0.548	2.24	1	05/16/2020 19:17	WG1477073
Selenium	0.820	J	0.690	2.24	1	05/16/2020 19:17	WG1477073
Silver	U		0.255	1.12	1	05/16/2020 19:17	WG1477073
Thallium	U		0.396	2.24	1	05/16/2020 19:17	WG1477073
Vanadium	44.1		0.768	2.24	1	05/16/2020 19:17	WG1477073
Zinc	44.2		1.05	5.59	1	05/16/2020 19:17	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0408	0.0559	1	05/16/2020 18:01	WG1477251
Acrylonitrile	U		0.00404	0.0140	1	05/16/2020 18:01	WG1477251
Benzene	U		0.000522	0.00112	1	05/16/2020 18:01	WG1477251
Bromobenzene	U		0.00101	0.0140	1	05/16/2020 18:01	WG1477251
Bromodichloromethane	U		0.000811	0.00279	1	05/16/2020 18:01	WG1477251
Bromoform	U		0.00131	0.0279	1	05/16/2020 18:01	WG1477251
Bromomethane	U		0.00220	0.0140	1	05/16/2020 18:01	WG1477251
n-Butylbenzene	U		0.00587	0.0140	1	05/16/2020 18:01	WG1477251
sec-Butylbenzene	U		0.00322	0.0140	1	05/16/2020 18:01	WG1477251
tert-Butylbenzene	U		0.00218	0.00559	1	05/16/2020 18:01	WG1477251
Carbon tetrachloride	U		0.00100	0.00559	1	05/16/2020 18:01	WG1477251
Chlorobenzene	U		0.000235	0.00279	1	05/16/2020 18:01	WG1477251
Chlorodibromomethane	U		0.000684	0.00279	1	05/16/2020 18:01	WG1477251
Chloroethane	U		0.00190	0.00559	1	05/16/2020 18:01	WG1477251
Chloroform	U		0.00115	0.00279	1	05/16/2020 18:01	WG1477251
Chloromethane	U		0.00486	0.0140	1	05/16/2020 18:01	WG1477251
2-Chlorotoluene	U		0.000967	0.00279	1	05/16/2020 18:01	WG1477251
4-Chlorotoluene	U		0.000503	0.00559	1	05/16/2020 18:01	WG1477251
1,2-Dibromo-3-Chloropropane	U		0.00436	0.0279	1	05/16/2020 18:01	WG1477251
1,2-Dibromoethane	U		0.000724	0.00279	1	05/16/2020 18:01	WG1477251
Dibromomethane	U		0.000838	0.00559	1	05/16/2020 18:01	WG1477251
1,2-Dichlorobenzene	U		0.000475	0.00559	1	05/16/2020 18:01	WG1477251
1,3-Dichlorobenzene	U		0.000671	0.00559	1	05/16/2020 18:01	WG1477251
1,4-Dichlorobenzene	U		0.000783	0.00559	1	05/16/2020 18:01	WG1477251

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00180	0.00279	1	05/16/2020 18:01	WG1477251
1,1-Dichloroethane	U		0.000549	0.00279	1	05/16/2020 18:01	WG1477251
1,2-Dichloroethane	U		0.000726	0.00279	1	05/16/2020 18:01	WG1477251
1,1-Dichloroethene	U		0.000677	0.00279	1	05/16/2020 18:01	WG1477251
cis-1,2-Dichloroethene	U		0.000821	0.00279	1	05/16/2020 18:01	WG1477251
trans-1,2-Dichloroethene	U		0.00116	0.00559	1	05/16/2020 18:01	WG1477251
1,2-Dichloropropane	U		0.00159	0.00559	1	05/16/2020 18:01	WG1477251
1,1-Dichloropropene	U		0.000904	0.00279	1	05/16/2020 18:01	WG1477251
1,3-Dichloropropane	U		0.000560	0.00559	1	05/16/2020 18:01	WG1477251
cis-1,3-Dichloropropene	U		0.000846	0.00279	1	05/16/2020 18:01	WG1477251
trans-1,3-Dichloropropene	U		0.00127	0.00559	1	05/16/2020 18:01	WG1477251
2,2-Dichloropropane	U		0.00154	0.00279	1	05/16/2020 18:01	WG1477251
Di-isopropyl ether	U		0.000458	0.00112	1	05/16/2020 18:01	WG1477251
Ethylbenzene	U		0.000824	0.00279	1	05/16/2020 18:01	WG1477251
Hexachloro-1,3-butadiene	U		0.00671	0.0279	1	05/16/2020 18:01	WG1477251
Isopropylbenzene	U	J4	0.000475	0.00279	1	05/16/2020 18:01	WG1477251
p-Isopropyltoluene	U		0.00285	0.00559	1	05/16/2020 18:01	WG1477251
2-Butanone (MEK)	U		0.0710	0.112	1	05/16/2020 18:01	WG1477251
Methylene Chloride	U		0.00742	0.0279	1	05/16/2020 18:01	WG1477251
4-Methyl-2-pentanone (MIBK)	U		0.00255	0.0279	1	05/16/2020 18:01	WG1477251
Methyl tert-butyl ether	U		0.000391	0.00112	1	05/16/2020 18:01	WG1477251
Naphthalene	U		0.00546	0.0140	1	05/16/2020 18:01	WG1477251
n-Propylbenzene	U		0.00106	0.00559	1	05/16/2020 18:01	WG1477251
Styrene	U		0.000256	0.0140	1	05/16/2020 18:01	WG1477251
1,1,1,2-Tetrachloroethane	U		0.00106	0.00279	1	05/16/2020 18:01	WG1477251
1,1,2,2-Tetrachloroethane	U		0.000777	0.00279	1	05/16/2020 18:01	WG1477251
1,1,2-Trichlorotrifluoroethane	U		0.000843	0.00279	1	05/16/2020 18:01	WG1477251
Tetrachloroethene	U		0.00100	0.00279	1	05/16/2020 18:01	WG1477251
Toluene	0.00216	J	0.00145	0.00559	1	05/16/2020 18:01	WG1477251
1,2,3-Trichlorobenzene	U		0.00819	0.0140	1	05/16/2020 18:01	WG1477251
1,2,4-Trichlorobenzene	U		0.00492	0.0140	1	05/16/2020 18:01	WG1477251
1,1,1-Trichloroethane	U		0.00103	0.00279	1	05/16/2020 18:01	WG1477251
1,1,2-Trichloroethane	U		0.000667	0.00279	1	05/16/2020 18:01	WG1477251
Trichloroethene	U		0.000653	0.00112	1	05/16/2020 18:01	WG1477251
Trichlorofluoromethane	U		0.000925	0.00279	1	05/16/2020 18:01	WG1477251
1,2,3-Trichloropropane	U		0.00181	0.0140	1	05/16/2020 18:01	WG1477251
1,2,4-Trimethylbenzene	U		0.00177	0.00559	1	05/16/2020 18:01	WG1477251
1,2,3-Trimethylbenzene	U		0.00177	0.00559	1	05/16/2020 18:01	WG1477251
1,3,5-Trimethylbenzene	U		0.00224	0.00559	1	05/16/2020 18:01	WG1477251
Vinyl chloride	U		0.00130	0.00279	1	05/16/2020 18:01	WG1477251
Xylenes, Total	U		0.000984	0.00727	1	05/16/2020 18:01	WG1477251
(S) Toluene-d8	*133*	J1		*75.0-131*		*05/16/2020 18:01*	WG1477251
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*05/16/2020 18:01*	WG1477251
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*05/16/2020 18:01*	WG1477251

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.819	4.47	1	05/19/2020 14:17	WG1477297
C22-C32 Hydrocarbons	5.05		1.49	4.47	1	05/19/2020 14:17	WG1477297
C32-C40 Hydrocarbons	5.95		1.49	4.47	1	05/19/2020 14:17	WG1477297
(S) o-Terphenyl	*64.4*			*18.0-148*		*05/19/2020 14:17*	WG1477297

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0132	0.0380	1	05/18/2020 14:19	WG1477089
PCB 1221	U		0.0132	0.0380	1	05/18/2020 14:19	WG1477089
PCB 1232	U		0.0132	0.0380	1	05/18/2020 14:19	WG1477089
PCB 1242	U		0.0132	0.0380	1	05/18/2020 14:19	WG1477089
PCB 1248	U		0.00825	0.0190	1	05/18/2020 14:19	WG1477089
PCB 1254	U		0.00825	0.0190	1	05/18/2020 14:19	WG1477089
PCB 1260	U		0.00825	0.0190	1	05/18/2020 14:19	WG1477089
(S) Decachlorobiphenyl	*58.0*			*10.0-135*		*05/18/2020 14:19*	WG1477089
(S) Tetrachloro-m-xylene	*70.0*			*10.0-139*		*05/18/2020 14:19*	WG1477089

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.5		1	05/19/2020 22:11	WG1478938

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0532		0.0213	0.0473	1	05/18/2020 10:51	WG1477007

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	0.784	J J6	0.592	2.37	1	05/16/2020 19:36	WG1477074
Arsenic	7.37		0.545	2.37	1	05/16/2020 19:36	WG1477074
Barium	196	O1	0.284	0.592	1	05/16/2020 19:36	WG1477074
Beryllium	0.538		0.0947	0.237	1	05/16/2020 19:36	WG1477074
Cadmium	0.695		0.0959	0.592	1	05/16/2020 19:36	WG1477074
Chromium	54.4	O1	0.296	1.18	1	05/16/2020 19:36	WG1477074
Cobalt	15.9	O1	0.272	1.18	1	05/16/2020 19:36	WG1477074
Copper	49.5	O1	0.599	2.37	1	05/16/2020 19:36	WG1477074
Lead	10.5		0.246	0.592	1	05/16/2020 19:36	WG1477074
Molybdenum	U		0.237	0.592	1	05/16/2020 19:36	WG1477074
Nickel	89.6	O1	0.580	2.37	1	05/16/2020 19:36	WG1477074
Selenium	1.14	J	0.730	2.37	1	05/16/2020 19:36	WG1477074
Silver	U		0.270	1.18	1	05/16/2020 19:36	WG1477074
Thallium	U		0.419	2.37	1	05/16/2020 19:36	WG1477074
Vanadium	59.7	O1	0.813	2.37	1	05/16/2020 19:36	WG1477074
Zinc	61.1	O1	1.11	5.92	1	05/16/2020 19:36	WG1477074

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0432	0.0592	1	05/16/2020 18:21	WG1477251
Acrylonitrile	U		0.00427	0.0148	1	05/16/2020 18:21	WG1477251
Benzene	U		0.000553	0.00118	1	05/16/2020 18:21	WG1477251
Bromobenzene	U		0.00107	0.0148	1	05/16/2020 18:21	WG1477251
Bromodichloromethane	U		0.000858	0.00296	1	05/16/2020 18:21	WG1477251
Bromoform	U		0.00138	0.0296	1	05/16/2020 18:21	WG1477251
Bromomethane	U		0.00233	0.0148	1	05/16/2020 18:21	WG1477251
n-Butylbenzene	U		0.00621	0.0148	1	05/16/2020 18:21	WG1477251
sec-Butylbenzene	U		0.00341	0.0148	1	05/16/2020 18:21	WG1477251
tert-Butylbenzene	U		0.00231	0.00592	1	05/16/2020 18:21	WG1477251
Carbon tetrachloride	U		0.00106	0.00592	1	05/16/2020 18:21	WG1477251
Chlorobenzene	U		0.000249	0.00296	1	05/16/2020 18:21	WG1477251
Chlorodibromomethane	U		0.000724	0.00296	1	05/16/2020 18:21	WG1477251
Chloroethane	U		0.00201	0.00592	1	05/16/2020 18:21	WG1477251
Chloroform	U		0.00122	0.00296	1	05/16/2020 18:21	WG1477251
Chloromethane	U		0.00515	0.0148	1	05/16/2020 18:21	WG1477251
2-Chlorotoluene	U		0.00102	0.00296	1	05/16/2020 18:21	WG1477251
4-Chlorotoluene	U		0.000533	0.00592	1	05/16/2020 18:21	WG1477251
1,2-Dibromo-3-Chloropropane	U		0.00462	0.0296	1	05/16/2020 18:21	WG1477251
1,2-Dibromoethane	U		0.000767	0.00296	1	05/16/2020 18:21	WG1477251
Dibromomethane	U		0.000888	0.00592	1	05/16/2020 18:21	WG1477251
1,2-Dichlorobenzene	U		0.000503	0.00592	1	05/16/2020 18:21	WG1477251
1,3-Dichlorobenzene	U		0.000710	0.00592	1	05/16/2020 18:21	WG1477251
1,4-Dichlorobenzene	U		0.000829	0.00592	1	05/16/2020 18:21	WG1477251

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00191	0.00296	1	05/16/2020 18:21	WG1477251
1,1-Dichloroethane	U		0.000581	0.00296	1	05/16/2020 18:21	WG1477251
1,2-Dichloroethane	U		0.000768	0.00296	1	05/16/2020 18:21	WG1477251
1,1-Dichloroethene	U		0.000717	0.00296	1	05/16/2020 18:21	WG1477251
cis-1,2-Dichloroethene	U		0.000869	0.00296	1	05/16/2020 18:21	WG1477251
trans-1,2-Dichloroethene	U		0.00123	0.00592	1	05/16/2020 18:21	WG1477251
1,2-Dichloropropane	U		0.00168	0.00592	1	05/16/2020 18:21	WG1477251
1,1-Dichloropropene	U		0.000958	0.00296	1	05/16/2020 18:21	WG1477251
1,3-Dichloropropane	U		0.000593	0.00592	1	05/16/2020 18:21	WG1477251
cis-1,3-Dichloropropene	U		0.000896	0.00296	1	05/16/2020 18:21	WG1477251
trans-1,3-Dichloropropene	U		0.00135	0.00592	1	05/16/2020 18:21	WG1477251
2,2-Dichloropropane	U		0.00163	0.00296	1	05/16/2020 18:21	WG1477251
Di-isopropyl ether	U		0.000485	0.00118	1	05/16/2020 18:21	WG1477251
Ethylbenzene	U		0.000872	0.00296	1	05/16/2020 18:21	WG1477251
Hexachloro-1,3-butadiene	U		0.00710	0.0296	1	05/16/2020 18:21	WG1477251
Isopropylbenzene	U	J4	0.000503	0.00296	1	05/16/2020 18:21	WG1477251
p-Isopropyltoluene	U		0.00302	0.00592	1	05/16/2020 18:21	WG1477251
2-Butanone (MEK)	U		0.0752	0.118	1	05/16/2020 18:21	WG1477251
Methylene Chloride	U		0.00786	0.0296	1	05/16/2020 18:21	WG1477251
4-Methyl-2-pentanone (MIBK)	U		0.00270	0.0296	1	05/16/2020 18:21	WG1477251
Methyl tert-butyl ether	U		0.000414	0.00118	1	05/16/2020 18:21	WG1477251
Naphthalene	U		0.00578	0.0148	1	05/16/2020 18:21	WG1477251
n-Propylbenzene	U		0.00112	0.00592	1	05/16/2020 18:21	WG1477251
Styrene	U		0.000271	0.0148	1	05/16/2020 18:21	WG1477251
1,1,1,2-Tetrachloroethane	U		0.00112	0.00296	1	05/16/2020 18:21	WG1477251
1,1,2,2-Tetrachloroethane	U		0.000823	0.00296	1	05/16/2020 18:21	WG1477251
1,1,2-Trichlorotrifluoroethane	U		0.000893	0.00296	1	05/16/2020 18:21	WG1477251
Tetrachloroethene	U		0.00106	0.00296	1	05/16/2020 18:21	WG1477251
Toluene	0.00194	J	0.00154	0.00592	1	05/16/2020 18:21	WG1477251
1,2,3-Trichlorobenzene	U		0.00868	0.0148	1	05/16/2020 18:21	WG1477251
1,2,4-Trichlorobenzene	U		0.00521	0.0148	1	05/16/2020 18:21	WG1477251
1,1,1-Trichloroethane	U		0.00109	0.00296	1	05/16/2020 18:21	WG1477251
1,1,2-Trichloroethane	U		0.000707	0.00296	1	05/16/2020 18:21	WG1477251
Trichloroethene	U		0.000691	0.00118	1	05/16/2020 18:21	WG1477251
Trichlorofluoromethane	U		0.000979	0.00296	1	05/16/2020 18:21	WG1477251
1,2,3-Trichloropropane	U		0.00192	0.0148	1	05/16/2020 18:21	WG1477251
1,2,4-Trimethylbenzene	U		0.00187	0.00592	1	05/16/2020 18:21	WG1477251
1,2,3-Trimethylbenzene	U		0.00187	0.00592	1	05/16/2020 18:21	WG1477251
1,3,5-Trimethylbenzene	U		0.00237	0.00592	1	05/16/2020 18:21	WG1477251
Vinyl chloride	U		0.00137	0.00296	1	05/16/2020 18:21	WG1477251
Xylenes, Total	U		0.00104	0.00769	1	05/16/2020 18:21	WG1477251
(S) Toluene-d8	*124*			*75.0-131*		*05/16/2020 18:21*	WG1477251
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*05/16/2020 18:21*	WG1477251
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*05/16/2020 18:21*	WG1477251

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.868	4.73	1	05/19/2020 13:48	WG1477297
C22-C32 Hydrocarbons	2.19	J	1.57	4.73	1	05/19/2020 13:48	WG1477297
C32-C40 Hydrocarbons	2.63	J	1.57	4.73	1	05/19/2020 13:48	WG1477297
(S) o-Terphenyl	*76.9*			*18.0-148*		*05/19/2020 13:48*	WG1477297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.5		1	05/19/2020 22:11	WG1478938

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0378	0.0518	1	05/16/2020 18:41	WG1477251
Acrylonitrile	U		0.00374	0.0130	1	05/16/2020 18:41	WG1477251
Benzene	U		0.000484	0.00104	1	05/16/2020 18:41	WG1477251
Bromobenzene	U		0.000933	0.0130	1	05/16/2020 18:41	WG1477251
Bromodichloromethane	U		0.000751	0.00259	1	05/16/2020 18:41	WG1477251
Bromoform	U		0.00121	0.0259	1	05/16/2020 18:41	WG1477251
Bromomethane	U		0.00204	0.0130	1	05/16/2020 18:41	WG1477251
n-Butylbenzene	U		0.00544	0.0130	1	05/16/2020 18:41	WG1477251
sec-Butylbenzene	U		0.00298	0.0130	1	05/16/2020 18:41	WG1477251
tert-Butylbenzene	U		0.00202	0.00518	1	05/16/2020 18:41	WG1477251
Carbon tetrachloride	U		0.000931	0.00518	1	05/16/2020 18:41	WG1477251
Chlorobenzene	U		0.000218	0.00259	1	05/16/2020 18:41	WG1477251
Chlorodibromomethane	U		0.000634	0.00259	1	05/16/2020 18:41	WG1477251
Chloroethane	U		0.00176	0.00518	1	05/16/2020 18:41	WG1477251
Chloroform	U		0.00107	0.00259	1	05/16/2020 18:41	WG1477251
Chloromethane	U		0.00451	0.0130	1	05/16/2020 18:41	WG1477251
2-Chlorotoluene	U		0.000896	0.00259	1	05/16/2020 18:41	WG1477251
4-Chlorotoluene	U		0.000466	0.00518	1	05/16/2020 18:41	WG1477251
1,2-Dibromo-3-Chloropropane	U		0.00404	0.0259	1	05/16/2020 18:41	WG1477251
1,2-Dibromoethane	U		0.000672	0.00259	1	05/16/2020 18:41	WG1477251
Dibromomethane	U		0.000777	0.00518	1	05/16/2020 18:41	WG1477251
1,2-Dichlorobenzene	U		0.000440	0.00518	1	05/16/2020 18:41	WG1477251
1,3-Dichlorobenzene	U		0.000622	0.00518	1	05/16/2020 18:41	WG1477251
1,4-Dichlorobenzene	U		0.000725	0.00518	1	05/16/2020 18:41	WG1477251
Dichlorodifluoromethane	U		0.00167	0.00259	1	05/16/2020 18:41	WG1477251
1,1-Dichloroethane	U		0.000509	0.00259	1	05/16/2020 18:41	WG1477251
1,2-Dichloroethane	U		0.000673	0.00259	1	05/16/2020 18:41	WG1477251
1,1-Dichloroethene	U		0.000628	0.00259	1	05/16/2020 18:41	WG1477251
cis-1,2-Dichloroethene	U		0.000761	0.00259	1	05/16/2020 18:41	WG1477251
trans-1,2-Dichloroethene	U		0.00108	0.00518	1	05/16/2020 18:41	WG1477251
1,2-Dichloropropane	U		0.00147	0.00518	1	05/16/2020 18:41	WG1477251
1,1-Dichloropropene	U		0.000838	0.00259	1	05/16/2020 18:41	WG1477251
1,3-Dichloropropane	U		0.000519	0.00518	1	05/16/2020 18:41	WG1477251
cis-1,3-Dichloropropene	U		0.000785	0.00259	1	05/16/2020 18:41	WG1477251
trans-1,3-Dichloropropene	U		0.00118	0.00518	1	05/16/2020 18:41	WG1477251
2,2-Dichloropropane	U		0.00143	0.00259	1	05/16/2020 18:41	WG1477251
Di-isopropyl ether	U		0.000425	0.00104	1	05/16/2020 18:41	WG1477251
Ethylbenzene	U		0.000764	0.00259	1	05/16/2020 18:41	WG1477251
Hexachloro-1,3-butadiene	U		0.00622	0.0259	1	05/16/2020 18:41	WG1477251
Isopropylbenzene	U	J4	0.000440	0.00259	1	05/16/2020 18:41	WG1477251
p-Isopropyltoluene	U		0.00264	0.00518	1	05/16/2020 18:41	WG1477251
2-Butanone (MEK)	U		0.0658	0.104	1	05/16/2020 18:41	WG1477251
Methylene Chloride	U		0.00688	0.0259	1	05/16/2020 18:41	WG1477251
4-Methyl-2-pentanone (MIBK)	U		0.00236	0.0259	1	05/16/2020 18:41	WG1477251
Methyl tert-butyl ether	U		0.000363	0.00104	1	05/16/2020 18:41	WG1477251
Naphthalene	U		0.00506	0.0130	1	05/16/2020 18:41	WG1477251
n-Propylbenzene	U		0.000985	0.00518	1	05/16/2020 18:41	WG1477251
Styrene	U		0.000237	0.0130	1	05/16/2020 18:41	WG1477251
1,1,1,2-Tetrachloroethane	U		0.000983	0.00259	1	05/16/2020 18:41	WG1477251
1,1,2,2-Tetrachloroethane	U		0.000720	0.00259	1	05/16/2020 18:41	WG1477251

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000781	0.00259	1	05/16/2020 18:41	WG1477251
Tetrachloroethene	U		0.000929	0.00259	1	05/16/2020 18:41	WG1477251
Toluene	0.0244		0.00135	0.00518	1	05/16/2020 18:41	WG1477251
1,2,3-Trichlorobenzene	U		0.00760	0.0130	1	05/16/2020 18:41	WG1477251
1,2,4-Trichlorobenzene	U		0.00456	0.0130	1	05/16/2020 18:41	WG1477251
1,1,1-Trichloroethane	U		0.000957	0.00259	1	05/16/2020 18:41	WG1477251
1,1,2-Trichloroethane	U		0.000619	0.00259	1	05/16/2020 18:41	WG1477251
Trichloroethene	U		0.000605	0.00104	1	05/16/2020 18:41	WG1477251
Trichlorofluoromethane	U		0.000857	0.00259	1	05/16/2020 18:41	WG1477251
1,2,3-Trichloropropane	U		0.00168	0.0130	1	05/16/2020 18:41	WG1477251
1,2,4-Trimethylbenzene	U		0.00164	0.00518	1	05/16/2020 18:41	WG1477251
1,2,3-Trimethylbenzene	U		0.00164	0.00518	1	05/16/2020 18:41	WG1477251
1,3,5-Trimethylbenzene	U		0.00207	0.00518	1	05/16/2020 18:41	WG1477251
Vinyl chloride	U		0.00120	0.00259	1	05/16/2020 18:41	WG1477251
Xylenes, Total	U		0.000912	0.00674	1	05/16/2020 18:41	WG1477251
(S) Toluene-d8	*104*			*75.0-131*		*05/16/2020 18:41*	WG1477251
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*05/16/2020 18:41*	WG1477251
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*05/16/2020 18:41*	WG1477251

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.760	4.15	1	05/18/2020 23:39	WG1477297
C22-C32 Hydrocarbons	U		1.38	4.15	1	05/18/2020 23:39	WG1477297
C32-C40 Hydrocarbons	U		1.38	4.15	1	05/18/2020 23:39	WG1477297
(S) o-Terphenyl	*108*			*18.0-148*		*05/18/2020 23:39*	WG1477297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.7		1	05/19/2020 22:11	WG1478938

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0407	0.0557	1	05/16/2020 19:02	WG1477251
Acrylonitrile	U		0.00402	0.0139	1	05/16/2020 19:02	WG1477251
Benzene	0.00127		0.000520	0.00111	1	05/16/2020 19:02	WG1477251
Bromobenzene	U		0.00100	0.0139	1	05/16/2020 19:02	WG1477251
Bromodichloromethane	U		0.000808	0.00279	1	05/16/2020 19:02	WG1477251
Bromoform	U		0.00130	0.0279	1	05/16/2020 19:02	WG1477251
Bromomethane	U		0.00220	0.0139	1	05/16/2020 19:02	WG1477251
n-Butylbenzene	U		0.00585	0.0139	1	05/16/2020 19:02	WG1477251
sec-Butylbenzene	U		0.00321	0.0139	1	05/16/2020 19:02	WG1477251
tert-Butylbenzene	U		0.00217	0.00557	1	05/16/2020 19:02	WG1477251
Carbon tetrachloride	U		0.00100	0.00557	1	05/16/2020 19:02	WG1477251
Chlorobenzene	U		0.000234	0.00279	1	05/16/2020 19:02	WG1477251
Chlorodibromomethane	U		0.000682	0.00279	1	05/16/2020 19:02	WG1477251
Chloroethane	U		0.00189	0.00557	1	05/16/2020 19:02	WG1477251
Chloroform	U		0.00115	0.00279	1	05/16/2020 19:02	WG1477251
Chloromethane	U		0.00485	0.0139	1	05/16/2020 19:02	WG1477251
2-Chlorotoluene	U		0.000964	0.00279	1	05/16/2020 19:02	WG1477251
4-Chlorotoluene	U		0.000501	0.00557	1	05/16/2020 19:02	WG1477251
1,2-Dibromo-3-Chloropropane	U		0.00435	0.0279	1	05/16/2020 19:02	WG1477251
1,2-Dibromoethane	U		0.000722	0.00279	1	05/16/2020 19:02	WG1477251
Dibromomethane	U		0.000836	0.00557	1	05/16/2020 19:02	WG1477251
1,2-Dichlorobenzene	U		0.000474	0.00557	1	05/16/2020 19:02	WG1477251
1,3-Dichlorobenzene	U		0.000669	0.00557	1	05/16/2020 19:02	WG1477251
1,4-Dichlorobenzene	U		0.000780	0.00557	1	05/16/2020 19:02	WG1477251
Dichlorodifluoromethane	U		0.00179	0.00279	1	05/16/2020 19:02	WG1477251
1,1-Dichloroethane	U		0.000547	0.00279	1	05/16/2020 19:02	WG1477251
1,2-Dichloroethane	U		0.000723	0.00279	1	05/16/2020 19:02	WG1477251
1,1-Dichloroethene	U		0.000675	0.00279	1	05/16/2020 19:02	WG1477251
cis-1,2-Dichloroethene	U		0.000818	0.00279	1	05/16/2020 19:02	WG1477251
trans-1,2-Dichloroethene	U		0.00116	0.00557	1	05/16/2020 19:02	WG1477251
1,2-Dichloropropane	U		0.00158	0.00557	1	05/16/2020 19:02	WG1477251
1,1-Dichloropropene	U		0.000901	0.00279	1	05/16/2020 19:02	WG1477251
1,3-Dichloropropane	U		0.000558	0.00557	1	05/16/2020 19:02	WG1477251
cis-1,3-Dichloropropene	U		0.000843	0.00279	1	05/16/2020 19:02	WG1477251
trans-1,3-Dichloropropene	U		0.00127	0.00557	1	05/16/2020 19:02	WG1477251
2,2-Dichloropropane	U		0.00154	0.00279	1	05/16/2020 19:02	WG1477251
Di-isopropyl ether	U		0.000457	0.00111	1	05/16/2020 19:02	WG1477251
Ethylbenzene	U		0.000821	0.00279	1	05/16/2020 19:02	WG1477251
Hexachloro-1,3-butadiene	U		0.00669	0.0279	1	05/16/2020 19:02	WG1477251
Isopropylbenzene	U	J4	0.000474	0.00279	1	05/16/2020 19:02	WG1477251
p-Isopropyltoluene	U		0.00284	0.00557	1	05/16/2020 19:02	WG1477251
2-Butanone (MEK)	U		0.0708	0.111	1	05/16/2020 19:02	WG1477251
Methylene Chloride	U		0.00740	0.0279	1	05/16/2020 19:02	WG1477251
4-Methyl-2-pentanone (MIBK)	U		0.00254	0.0279	1	05/16/2020 19:02	WG1477251
Methyl tert-butyl ether	U		0.000390	0.00111	1	05/16/2020 19:02	WG1477251
Naphthalene	U		0.00544	0.0139	1	05/16/2020 19:02	WG1477251
n-Propylbenzene	U		0.00106	0.00557	1	05/16/2020 19:02	WG1477251
Styrene	U		0.000255	0.0139	1	05/16/2020 19:02	WG1477251
1,1,1,2-Tetrachloroethane	U		0.00106	0.00279	1	05/16/2020 19:02	WG1477251
1,1,2,2-Tetrachloroethane	U		0.000774	0.00279	1	05/16/2020 19:02	WG1477251

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000840	0.00279	1	05/16/2020 19:02	WG1477251
Tetrachloroethene	U		0.000998	0.00279	1	05/16/2020 19:02	WG1477251
Toluene	0.0341		0.00145	0.00557	1	05/16/2020 19:02	WG1477251
1,2,3-Trichlorobenzene	U		0.00817	0.0139	1	05/16/2020 19:02	WG1477251
1,2,4-Trichlorobenzene	U		0.00490	0.0139	1	05/16/2020 19:02	WG1477251
1,1,1-Trichloroethane	U		0.00103	0.00279	1	05/16/2020 19:02	WG1477251
1,1,2-Trichloroethane	U		0.000665	0.00279	1	05/16/2020 19:02	WG1477251
Trichloroethene	U		0.000651	0.00111	1	05/16/2020 19:02	WG1477251
Trichlorofluoromethane	U		0.000921	0.00279	1	05/16/2020 19:02	WG1477251
1,2,3-Trichloropropane	U		0.00181	0.0139	1	05/16/2020 19:02	WG1477251
1,2,4-Trimethylbenzene	U		0.00176	0.00557	1	05/16/2020 19:02	WG1477251
1,2,3-Trimethylbenzene	U		0.00176	0.00557	1	05/16/2020 19:02	WG1477251
1,3,5-Trimethylbenzene	U		0.00223	0.00557	1	05/16/2020 19:02	WG1477251
Vinyl chloride	U		0.00129	0.00279	1	05/16/2020 19:02	WG1477251
Xylenes, Total	U		0.000981	0.00724	1	05/16/2020 19:02	WG1477251
(S) Toluene-d8	*136*	J1		*75.0-131*		*05/16/2020 19:02*	WG1477251
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*05/16/2020 19:02*	WG1477251
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*05/16/2020 19:02*	WG1477251

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.817	4.46	1	05/18/2020 23:54	WG1477297
C22-C32 Hydrocarbons	U		1.48	4.46	1	05/18/2020 23:54	WG1477297
C32-C40 Hydrocarbons	U		1.48	4.46	1	05/18/2020 23:54	WG1477297
(S) o-Terphenyl	*109*			*18.0-148*		*05/18/2020 23:54*	WG1477297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.5		1	05/19/2020 22:11	WG1478938

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.409		0.0208	0.0463	1	05/18/2020 10:54	WG1477007

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.578	2.31	1	05/16/2020 19:20	WG1477073
Arsenic	2.04	J	0.532	2.31	1	05/16/2020 19:20	WG1477073
Barium	52.4		0.278	0.578	1	05/16/2020 19:20	WG1477073
Beryllium	0.220	J	0.0925	0.231	1	05/16/2020 19:20	WG1477073
Cadmium	0.476	J	0.0937	0.578	1	05/16/2020 19:20	WG1477073
Chromium	15.2		0.289	1.16	1	05/16/2020 19:20	WG1477073
Cobalt	2.76		0.266	1.16	1	05/16/2020 19:20	WG1477073
Copper	16.9		0.585	2.31	1	05/16/2020 19:20	WG1477073
Lead	7.58		0.241	0.578	1	05/16/2020 19:20	WG1477073
Molybdenum	0.415	J	0.231	0.578	1	05/16/2020 19:20	WG1477073
Nickel	25.6		0.567	2.31	1	05/16/2020 19:20	WG1477073
Selenium	0.908	J	0.713	2.31	1	05/16/2020 19:20	WG1477073
Silver	U		0.264	1.16	1	05/16/2020 19:20	WG1477073
Thallium	U		0.409	2.31	1	05/16/2020 19:20	WG1477073
Vanadium	15.9		0.794	2.31	1	05/16/2020 19:20	WG1477073
Zinc	27.5		1.09	5.78	1	05/16/2020 19:20	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0422	0.0578	1	05/16/2020 19:22	WG1477251
Acrylonitrile	U		0.00417	0.0145	1	05/16/2020 19:22	WG1477251
Benzene	U		0.000540	0.00116	1	05/16/2020 19:22	WG1477251
Bromobenzene	U		0.00104	0.0145	1	05/16/2020 19:22	WG1477251
Bromodichloromethane	U		0.000838	0.00289	1	05/16/2020 19:22	WG1477251
Bromoform	U		0.00135	0.0289	1	05/16/2020 19:22	WG1477251
Bromomethane	U		0.00228	0.0145	1	05/16/2020 19:22	WG1477251
n-Butylbenzene	U		0.00607	0.0145	1	05/16/2020 19:22	WG1477251
sec-Butylbenzene	U		0.00333	0.0145	1	05/16/2020 19:22	WG1477251
tert-Butylbenzene	U		0.00225	0.00578	1	05/16/2020 19:22	WG1477251
Carbon tetrachloride	U		0.00104	0.00578	1	05/16/2020 19:22	WG1477251
Chlorobenzene	U		0.000243	0.00289	1	05/16/2020 19:22	WG1477251
Chlorodibromomethane	U		0.000708	0.00289	1	05/16/2020 19:22	WG1477251
Chloroethane	U		0.00197	0.00578	1	05/16/2020 19:22	WG1477251
Chloroform	U		0.00119	0.00289	1	05/16/2020 19:22	WG1477251
Chloromethane	U		0.00503	0.0145	1	05/16/2020 19:22	WG1477251
2-Chlorotoluene	U		0.00100	0.00289	1	05/16/2020 19:22	WG1477251
4-Chlorotoluene	U		0.000520	0.00578	1	05/16/2020 19:22	WG1477251
1,2-Dibromo-3-Chloropropane	U		0.00451	0.0289	1	05/16/2020 19:22	WG1477251
1,2-Dibromoethane	U		0.000749	0.00289	1	05/16/2020 19:22	WG1477251
Dibromomethane	U		0.000867	0.00578	1	05/16/2020 19:22	WG1477251
1,2-Dichlorobenzene	U		0.000491	0.00578	1	05/16/2020 19:22	WG1477251
1,3-Dichlorobenzene	U		0.000694	0.00578	1	05/16/2020 19:22	WG1477251
1,4-Dichlorobenzene	U		0.000809	0.00578	1	05/16/2020 19:22	WG1477251

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00186	0.00289	1	05/16/2020 19:22	WG1477251
1,1-Dichloroethane	U		0.000568	0.00289	1	05/16/2020 19:22	WG1477251
1,2-Dichloroethane	U		0.000751	0.00289	1	05/16/2020 19:22	WG1477251
1,1-Dichloroethene	U		0.000701	0.00289	1	05/16/2020 19:22	WG1477251
cis-1,2-Dichloroethene	U		0.000849	0.00289	1	05/16/2020 19:22	WG1477251
trans-1,2-Dichloroethene	U		0.00120	0.00578	1	05/16/2020 19:22	WG1477251
1,2-Dichloropropane	U		0.00164	0.00578	1	05/16/2020 19:22	WG1477251
1,1-Dichloropropene	U		0.000936	0.00289	1	05/16/2020 19:22	WG1477251
1,3-Dichloropropane	U		0.000579	0.00578	1	05/16/2020 19:22	WG1477251
cis-1,3-Dichloropropene	U		0.000875	0.00289	1	05/16/2020 19:22	WG1477251
trans-1,3-Dichloropropene	U		0.00132	0.00578	1	05/16/2020 19:22	WG1477251
2,2-Dichloropropane	U		0.00160	0.00289	1	05/16/2020 19:22	WG1477251
Di-isopropyl ether	U		0.000474	0.00116	1	05/16/2020 19:22	WG1477251
Ethylbenzene	U		0.000852	0.00289	1	05/16/2020 19:22	WG1477251
Hexachloro-1,3-butadiene	U		0.00694	0.0289	1	05/16/2020 19:22	WG1477251
Isopropylbenzene	U	J4	0.000491	0.00289	1	05/16/2020 19:22	WG1477251
p-Isopropyltoluene	U		0.00295	0.00578	1	05/16/2020 19:22	WG1477251
2-Butanone (MEK)	U		0.0734	0.116	1	05/16/2020 19:22	WG1477251
Methylene Chloride	U		0.00768	0.0289	1	05/16/2020 19:22	WG1477251
4-Methyl-2-pentanone (MIBK)	U		0.00264	0.0289	1	05/16/2020 19:22	WG1477251
Methyl tert-butyl ether	U		0.000405	0.00116	1	05/16/2020 19:22	WG1477251
Naphthalene	U		0.00564	0.0145	1	05/16/2020 19:22	WG1477251
n-Propylbenzene	U		0.00110	0.00578	1	05/16/2020 19:22	WG1477251
Styrene	U		0.000265	0.0145	1	05/16/2020 19:22	WG1477251
1,1,1,2-Tetrachloroethane	U		0.00110	0.00289	1	05/16/2020 19:22	WG1477251
1,1,2,2-Tetrachloroethane	U		0.000804	0.00289	1	05/16/2020 19:22	WG1477251
1,1,2-Trichlorotrifluoroethane	U		0.000872	0.00289	1	05/16/2020 19:22	WG1477251
Tetrachloroethene	U		0.00104	0.00289	1	05/16/2020 19:22	WG1477251
Toluene	U		0.00150	0.00578	1	05/16/2020 19:22	WG1477251
1,2,3-Trichlorobenzene	U		0.00848	0.0145	1	05/16/2020 19:22	WG1477251
1,2,4-Trichlorobenzene	U		0.00509	0.0145	1	05/16/2020 19:22	WG1477251
1,1,1-Trichloroethane	U		0.00107	0.00289	1	05/16/2020 19:22	WG1477251
1,1,2-Trichloroethane	U		0.000690	0.00289	1	05/16/2020 19:22	WG1477251
Trichloroethene	U		0.000675	0.00116	1	05/16/2020 19:22	WG1477251
Trichlorofluoromethane	U		0.000956	0.00289	1	05/16/2020 19:22	WG1477251
1,2,3-Trichloropropane	U		0.00187	0.0145	1	05/16/2020 19:22	WG1477251
1,2,4-Trimethylbenzene	U		0.00183	0.00578	1	05/16/2020 19:22	WG1477251
1,2,3-Trimethylbenzene	U		0.00183	0.00578	1	05/16/2020 19:22	WG1477251
1,3,5-Trimethylbenzene	U		0.00231	0.00578	1	05/16/2020 19:22	WG1477251
Vinyl chloride	U		0.00134	0.00289	1	05/16/2020 19:22	WG1477251
Xylenes, Total	U		0.00102	0.00752	1	05/16/2020 19:22	WG1477251
(S) Toluene-d8	*104*			*75.0-131*		*05/16/2020 19:22*	WG1477251
(S) 4-Bromofluorobenzene	*88.8*			*67.0-138*		*05/16/2020 19:22*	WG1477251
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*05/16/2020 19:22*	WG1477251

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		170	925	200	05/19/2020 02:47	WG1477297
C22-C32 Hydrocarbons	825	J	308	925	200	05/19/2020 02:47	WG1477297
C32-C40 Hydrocarbons	U		308	925	200	05/19/2020 02:47	WG1477297
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*05/19/2020 02:47*	WG1477297

Sample Narrative:

L1217589-40 WG1477297: Cannot run at lower dilution due to viscosity of extract

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0136	0.0393	1	05/18/2020 14:33	WG1477089
PCB 1221	U		0.0136	0.0393	1	05/18/2020 14:33	WG1477089
PCB 1232	U		0.0136	0.0393	1	05/18/2020 14:33	WG1477089
PCB 1242	U		0.0136	0.0393	1	05/18/2020 14:33	WG1477089
PCB 1248	U		0.00853	0.0197	1	05/18/2020 14:33	WG1477089
PCB 1254	U		0.00853	0.0197	1	05/18/2020 14:33	WG1477089
PCB 1260	0.0469	P	0.00853	0.0197	1	05/18/2020 14:33	WG1477089
(S) Decachlorobiphenyl	*68.4*			*10.0-135*		*05/18/2020 14:33*	WG1477089
(S) Tetrachloro-m-xylene	*80.5*			*10.0-139*		*05/18/2020 14:33*	WG1477089

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.7		1	05/19/2020 22:11	WG1478938

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0425	J	0.0205	0.0456	1	05/18/2020 10:57	WG1477007

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.570	2.28	1	05/16/2020 19:22	WG1477073
Arsenic	12.2		0.525	2.28	1	05/16/2020 19:22	WG1477073
Barium	177		0.274	0.570	1	05/16/2020 19:22	WG1477073
Beryllium	0.552		0.0912	0.228	1	05/16/2020 19:22	WG1477073
Cadmium	0.659		0.0924	0.570	1	05/16/2020 19:22	WG1477073
Chromium	66.6		0.285	1.14	1	05/16/2020 19:22	WG1477073
Cobalt	13.6		0.262	1.14	1	05/16/2020 19:22	WG1477073
Copper	32.1		0.577	2.28	1	05/16/2020 19:22	WG1477073
Lead	10.3		0.237	0.570	1	05/16/2020 19:22	WG1477073
Molybdenum	U		0.228	0.570	1	05/16/2020 19:22	WG1477073
Nickel	91.9		0.559	2.28	1	05/16/2020 19:22	WG1477073
Selenium	U		0.704	2.28	1	05/16/2020 19:22	WG1477073
Silver	U		0.260	1.14	1	05/16/2020 19:22	WG1477073
Thallium	U		0.404	2.28	1	05/16/2020 19:22	WG1477073
Vanadium	47.5		0.784	2.28	1	05/16/2020 19:22	WG1477073
Zinc	60.1		1.07	5.70	1	05/16/2020 19:22	WG1477073

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0416	0.0570	1	05/19/2020 14:34	WG1478602
Acrylonitrile	U		0.00412	0.0143	1	05/19/2020 14:34	WG1478602
Benzene	U		0.000533	0.00114	1	05/19/2020 14:34	WG1478602
Bromobenzene	U		0.00103	0.0143	1	05/19/2020 14:34	WG1478602
Bromodichloromethane	U		0.000827	0.00285	1	05/19/2020 14:34	WG1478602
Bromoform	U		0.00133	0.0285	1	05/19/2020 14:34	WG1478602
Bromomethane	U		0.00225	0.0143	1	05/19/2020 14:34	WG1478602
n-Butylbenzene	U		0.00599	0.0143	1	05/19/2020 14:34	WG1478602
sec-Butylbenzene	U		0.00328	0.0143	1	05/19/2020 14:34	WG1478602
tert-Butylbenzene	U		0.00222	0.00570	1	05/19/2020 14:34	WG1478602
Carbon tetrachloride	U		0.00102	0.00570	1	05/19/2020 14:34	WG1478602
Chlorobenzene	U		0.000240	0.00285	1	05/19/2020 14:34	WG1478602
Chlorodibromomethane	U		0.000698	0.00285	1	05/19/2020 14:34	WG1478602
Chloroethane	U		0.00194	0.00570	1	05/19/2020 14:34	WG1478602
Chloroform	U		0.00117	0.00285	1	05/19/2020 14:34	WG1478602
Chloromethane	U		0.00496	0.0143	1	05/19/2020 14:34	WG1478602
2-Chlorotoluene	U		0.000987	0.00285	1	05/19/2020 14:34	WG1478602
4-Chlorotoluene	U		0.000513	0.00570	1	05/19/2020 14:34	WG1478602
1,2-Dibromo-3-Chloropropane	U		0.00445	0.0285	1	05/19/2020 14:34	WG1478602
1,2-Dibromoethane	U		0.000739	0.00285	1	05/19/2020 14:34	WG1478602
Dibromomethane	U		0.000855	0.00570	1	05/19/2020 14:34	WG1478602
1,2-Dichlorobenzene	U		0.000485	0.00570	1	05/19/2020 14:34	WG1478602
1,3-Dichlorobenzene	U		0.000684	0.00570	1	05/19/2020 14:34	WG1478602
1,4-Dichlorobenzene	U	J4	0.000798	0.00570	1	05/19/2020 14:34	WG1478602

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00184	0.00285	1	05/19/2020 14:34	WG1478602
1,1-Dichloroethane	U		0.000560	0.00285	1	05/19/2020 14:34	WG1478602
1,2-Dichloroethane	U		0.000740	0.00285	1	05/19/2020 14:34	WG1478602
1,1-Dichloroethene	U		0.000691	0.00285	1	05/19/2020 14:34	WG1478602
cis-1,2-Dichloroethene	U		0.000837	0.00285	1	05/19/2020 14:34	WG1478602
trans-1,2-Dichloroethene	U		0.00119	0.00570	1	05/19/2020 14:34	WG1478602
1,2-Dichloropropane	U		0.00162	0.00570	1	05/19/2020 14:34	WG1478602
1,1-Dichloropropene	U		0.000923	0.00285	1	05/19/2020 14:34	WG1478602
1,3-Dichloropropane	U		0.000571	0.00570	1	05/19/2020 14:34	WG1478602
cis-1,3-Dichloropropene	U		0.000863	0.00285	1	05/19/2020 14:34	WG1478602
trans-1,3-Dichloropropene	U		0.00130	0.00570	1	05/19/2020 14:34	WG1478602
2,2-Dichloropropane	U		0.00157	0.00285	1	05/19/2020 14:34	WG1478602
Di-isopropyl ether	U		0.000468	0.00114	1	05/19/2020 14:34	WG1478602
Ethylbenzene	U		0.000841	0.00285	1	05/19/2020 14:34	WG1478602
Hexachloro-1,3-butadiene	U		0.00684	0.0285	1	05/19/2020 14:34	WG1478602
Isopropylbenzene	U		0.000485	0.00285	1	05/19/2020 14:34	WG1478602
p-Isopropyltoluene	U		0.00291	0.00570	1	05/19/2020 14:34	WG1478602
2-Butanone (MEK)	0.0748	B J	0.0724	0.114	1	05/19/2020 14:34	WG1478602
Methylene Chloride	U		0.00757	0.0285	1	05/19/2020 14:34	WG1478602
4-Methyl-2-pentanone (MIBK)	U		0.00260	0.0285	1	05/19/2020 14:34	WG1478602
Methyl tert-butyl ether	U		0.000399	0.00114	1	05/19/2020 14:34	WG1478602
Naphthalene	U		0.00557	0.0143	1	05/19/2020 14:34	WG1478602
n-Propylbenzene	U		0.00108	0.00570	1	05/19/2020 14:34	WG1478602
Styrene	U		0.000261	0.0143	1	05/19/2020 14:34	WG1478602
1,1,1,2-Tetrachloroethane	U		0.00108	0.00285	1	05/19/2020 14:34	WG1478602
1,1,2,2-Tetrachloroethane	U		0.000793	0.00285	1	05/19/2020 14:34	WG1478602
1,1,2-Trichlorotrifluoroethane	U		0.000860	0.00285	1	05/19/2020 14:34	WG1478602
Tetrachloroethene	U		0.00102	0.00285	1	05/19/2020 14:34	WG1478602
Toluene	U		0.00148	0.00570	1	05/19/2020 14:34	WG1478602
1,2,3-Trichlorobenzene	U		0.00836	0.0143	1	05/19/2020 14:34	WG1478602
1,2,4-Trichlorobenzene	U		0.00502	0.0143	1	05/19/2020 14:34	WG1478602
1,1,1-Trichloroethane	U		0.00105	0.00285	1	05/19/2020 14:34	WG1478602
1,1,2-Trichloroethane	U		0.000681	0.00285	1	05/19/2020 14:34	WG1478602
Trichloroethene	U		0.000666	0.00114	1	05/19/2020 14:34	WG1478602
Trichlorofluoromethane	U		0.000943	0.00285	1	05/19/2020 14:34	WG1478602
1,2,3-Trichloropropane	U		0.00185	0.0143	1	05/19/2020 14:34	WG1478602
1,2,4-Trimethylbenzene	U		0.00180	0.00570	1	05/19/2020 14:34	WG1478602
1,2,3-Trimethylbenzene	U	J4	0.00180	0.00570	1	05/19/2020 14:34	WG1478602
1,3,5-Trimethylbenzene	U		0.00228	0.00570	1	05/19/2020 14:34	WG1478602
Vinyl chloride	U		0.00132	0.00285	1	05/19/2020 14:34	WG1478602
Xylenes, Total	U		0.00100	0.00741	1	05/19/2020 14:34	WG1478602
(S) Toluene-d8	*106*			*75.0-131*		*05/19/2020 14:34*	WG1478602
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*05/19/2020 14:34*	WG1478602
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*05/19/2020 14:34*	WG1478602

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	3.78	J	1.68	9.12	2	05/19/2020 19:18	WG1477297
C22-C32 Hydrocarbons	26.8		3.03	9.12	2	05/19/2020 19:18	WG1477297
C32-C40 Hydrocarbons	32.3		3.03	9.12	2	05/19/2020 19:18	WG1477297
(S) o-Terphenyl	*77.0*			*18.0-148*		*05/19/2020 19:18*	WG1477297

Sample Narrative:

L1217589-41 WG1477297: Dilution due to matrix impact during extract concentration procedure

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.7		1	05/19/2020 22:11	WG1478938

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0394	0.0539	1	05/16/2020 16:30	WG1477261
Acrylonitrile	U		0.00389	0.0135	1	05/16/2020 16:30	WG1477261
Benzene	U		0.000504	0.00108	1	05/16/2020 16:30	WG1477261
Bromobenzene	U		0.000971	0.0135	1	05/16/2020 16:30	WG1477261
Bromodichloromethane	U		0.000782	0.00270	1	05/16/2020 16:30	WG1477261
Bromoform	U		0.00126	0.0270	1	05/16/2020 16:30	WG1477261
Bromomethane	U		0.00213	0.0135	1	05/16/2020 16:30	WG1477261
n-Butylbenzene	U		0.00566	0.0135	1	05/16/2020 16:30	WG1477261
sec-Butylbenzene	U		0.00311	0.0135	1	05/16/2020 16:30	WG1477261
tert-Butylbenzene	U		0.00210	0.00539	1	05/16/2020 16:30	WG1477261
Carbon tetrachloride	U		0.000969	0.00539	1	05/16/2020 16:30	WG1477261
Chlorobenzene	U		0.000227	0.00270	1	05/16/2020 16:30	WG1477261
Chlorodibromomethane	U		0.000660	0.00270	1	05/16/2020 16:30	WG1477261
Chloroethane	U		0.00183	0.00539	1	05/16/2020 16:30	WG1477261
Chloroform	U		0.00111	0.00270	1	05/16/2020 16:30	WG1477261
Chloromethane	U		0.00469	0.0135	1	05/16/2020 16:30	WG1477261
2-Chlorotoluene	U		0.000933	0.00270	1	05/16/2020 16:30	WG1477261
4-Chlorotoluene	U		0.000485	0.00539	1	05/16/2020 16:30	WG1477261
1,2-Dibromo-3-Chloropropane	U		0.00421	0.0270	1	05/16/2020 16:30	WG1477261
1,2-Dibromoethane	U		0.000699	0.00270	1	05/16/2020 16:30	WG1477261
Dibromomethane	U		0.000809	0.00539	1	05/16/2020 16:30	WG1477261
1,2-Dichlorobenzene	U		0.000458	0.00539	1	05/16/2020 16:30	WG1477261
1,3-Dichlorobenzene	U		0.000647	0.00539	1	05/16/2020 16:30	WG1477261
1,4-Dichlorobenzene	U		0.000755	0.00539	1	05/16/2020 16:30	WG1477261
Dichlorodifluoromethane	U		0.00174	0.00270	1	05/16/2020 16:30	WG1477261
1,1-Dichloroethane	U		0.000530	0.00270	1	05/16/2020 16:30	WG1477261
1,2-Dichloroethane	U		0.000700	0.00270	1	05/16/2020 16:30	WG1477261
1,1-Dichloroethene	U		0.000654	0.00270	1	05/16/2020 16:30	WG1477261
cis-1,2-Dichloroethene	U		0.000792	0.00270	1	05/16/2020 16:30	WG1477261
trans-1,2-Dichloroethene	U		0.00112	0.00539	1	05/16/2020 16:30	WG1477261
1,2-Dichloropropane	U		0.00153	0.00539	1	05/16/2020 16:30	WG1477261
1,1-Dichloropropene	U		0.000873	0.00270	1	05/16/2020 16:30	WG1477261
1,3-Dichloropropane	U		0.000540	0.00539	1	05/16/2020 16:30	WG1477261
cis-1,3-Dichloropropene	U		0.000817	0.00270	1	05/16/2020 16:30	WG1477261
trans-1,3-Dichloropropene	U		0.00123	0.00539	1	05/16/2020 16:30	WG1477261
2,2-Dichloropropane	U		0.00149	0.00270	1	05/16/2020 16:30	WG1477261
Di-isopropyl ether	U		0.000442	0.00108	1	05/16/2020 16:30	WG1477261
Ethylbenzene	U		0.000795	0.00270	1	05/16/2020 16:30	WG1477261
Hexachloro-1,3-butadiene	U		0.00647	0.0270	1	05/16/2020 16:30	WG1477261
Isopropylbenzene	U		0.000458	0.00270	1	05/16/2020 16:30	WG1477261
p-Isopropyltoluene	U		0.00275	0.00539	1	05/16/2020 16:30	WG1477261
2-Butanone (MEK)	U		0.0685	0.108	1	05/16/2020 16:30	WG1477261
Methylene Chloride	U		0.00716	0.0270	1	05/16/2020 16:30	WG1477261
4-Methyl-2-pentanone (MIBK)	U		0.00246	0.0270	1	05/16/2020 16:30	WG1477261
Methyl tert-butyl ether	U		0.000378	0.00108	1	05/16/2020 16:30	WG1477261
Naphthalene	U		0.00526	0.0135	1	05/16/2020 16:30	WG1477261
n-Propylbenzene	U		0.00102	0.00539	1	05/16/2020 16:30	WG1477261
Styrene	U		0.000247	0.0135	1	05/16/2020 16:30	WG1477261
1,1,1,2-Tetrachloroethane	U		0.00102	0.00270	1	05/16/2020 16:30	WG1477261
1,1,2,2-Tetrachloroethane	U		0.000750	0.00270	1	05/16/2020 16:30	WG1477261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000813	0.00270	1	05/16/2020 16:30	WG1477261
Tetrachloroethene	U		0.000967	0.00270	1	05/16/2020 16:30	WG1477261
Toluene	U		0.00140	0.00539	1	05/16/2020 16:30	WG1477261
1,2,3-Trichlorobenzene	U		0.00791	0.0135	1	05/16/2020 16:30	WG1477261
1,2,4-Trichlorobenzene	U		0.00475	0.0135	1	05/16/2020 16:30	WG1477261
1,1,1-Trichloroethane	U		0.000996	0.00270	1	05/16/2020 16:30	WG1477261
1,1,2-Trichloroethane	U		0.000644	0.00270	1	05/16/2020 16:30	WG1477261
Trichloroethene	U		0.000630	0.00108	1	05/19/2020 03:41	WG1478189
Trichlorofluoromethane	U		0.000892	0.00270	1	05/16/2020 16:30	WG1477261
1,2,3-Trichloropropane	U		0.00175	0.0135	1	05/16/2020 16:30	WG1477261
1,2,4-Trimethylbenzene	U		0.00170	0.00539	1	05/16/2020 16:30	WG1477261
1,2,3-Trimethylbenzene	U		0.00170	0.00539	1	05/16/2020 16:30	WG1477261
1,3,5-Trimethylbenzene	U		0.00216	0.00539	1	05/16/2020 16:30	WG1477261
Vinyl chloride	U	J4	0.00125	0.00270	1	05/16/2020 16:30	WG1477261
Xylenes, Total	U		0.000949	0.00701	1	05/16/2020 16:30	WG1477261
(S) Toluene-d8	*99.1*			*75.0-131*		*05/16/2020 16:30*	WG1477261
(S) Toluene-d8	*98.9*			*75.0-131*		*05/19/2020 03:41*	WG1478189
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*05/16/2020 16:30*	WG1477261
(S) 4-Bromofluorobenzene	*97.9*			*67.0-138*		*05/19/2020 03:41*	WG1478189
(S) 1,2-Dichloroethane-d4	*114*			*70.0-130*		*05/16/2020 16:30*	WG1477261
(S) 1,2-Dichloroethane-d4	*117*			*70.0-130*		*05/19/2020 03:41*	WG1478189

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	2.21	J	0.791	4.31	1	05/19/2020 15:00	WG1477296
C22-C32 Hydrocarbons	10.3		1.43	4.31	1	05/19/2020 15:00	WG1477296
C32-C40 Hydrocarbons	8.15		1.43	4.31	1	05/19/2020 15:00	WG1477296
(S) o-Terphenyl	*72.8*			*18.0-148*		*05/19/2020 15:00*	WG1477296

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.2		1	05/19/2020 22:11	WG1478938

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0400	0.0548	1	05/16/2020 16:49	WG1477261
Acrylonitrile	U		0.00396	0.0137	1	05/16/2020 16:49	WG1477261
Benzene	U		0.000512	0.00110	1	05/16/2020 16:49	WG1477261
Bromobenzene	U		0.000986	0.0137	1	05/16/2020 16:49	WG1477261
Bromodichloromethane	U		0.000795	0.00274	1	05/16/2020 16:49	WG1477261
Bromoform	U		0.00128	0.0274	1	05/16/2020 16:49	WG1477261
Bromomethane	U		0.00216	0.0137	1	05/16/2020 16:49	WG1477261
n-Butylbenzene	U		0.00575	0.0137	1	05/16/2020 16:49	WG1477261
sec-Butylbenzene	U		0.00316	0.0137	1	05/16/2020 16:49	WG1477261
tert-Butylbenzene	U		0.00214	0.00548	1	05/16/2020 16:49	WG1477261
Carbon tetrachloride	U		0.000984	0.00548	1	05/16/2020 16:49	WG1477261
Chlorobenzene	U		0.000230	0.00274	1	05/16/2020 16:49	WG1477261
Chlorodibromomethane	U		0.000671	0.00274	1	05/16/2020 16:49	WG1477261
Chloroethane	U		0.00186	0.00548	1	05/16/2020 16:49	WG1477261
Chloroform	U		0.00113	0.00274	1	05/16/2020 16:49	WG1477261
Chloromethane	U		0.00477	0.0137	1	05/16/2020 16:49	WG1477261
2-Chlorotoluene	U		0.000948	0.00274	1	05/16/2020 16:49	WG1477261
4-Chlorotoluene	U		0.000493	0.00548	1	05/16/2020 16:49	WG1477261
1,2-Dibromo-3-Chloropropane	U		0.00427	0.0274	1	05/16/2020 16:49	WG1477261
1,2-Dibromoethane	U		0.000710	0.00274	1	05/16/2020 16:49	WG1477261
Dibromomethane	U		0.000822	0.00548	1	05/16/2020 16:49	WG1477261
1,2-Dichlorobenzene	U		0.000466	0.00548	1	05/16/2020 16:49	WG1477261
1,3-Dichlorobenzene	U		0.000658	0.00548	1	05/16/2020 16:49	WG1477261
1,4-Dichlorobenzene	U		0.000767	0.00548	1	05/16/2020 16:49	WG1477261
Dichlorodifluoromethane	U		0.00176	0.00274	1	05/16/2020 16:49	WG1477261
1,1-Dichloroethane	U		0.000538	0.00274	1	05/16/2020 16:49	WG1477261
1,2-Dichloroethane	U		0.000711	0.00274	1	05/16/2020 16:49	WG1477261
1,1-Dichloroethene	U		0.000664	0.00274	1	05/16/2020 16:49	WG1477261
cis-1,2-Dichloroethene	U		0.000804	0.00274	1	05/16/2020 16:49	WG1477261
trans-1,2-Dichloroethene	U		0.00114	0.00548	1	05/16/2020 16:49	WG1477261
1,2-Dichloropropane	U		0.00156	0.00548	1	05/16/2020 16:49	WG1477261
1,1-Dichloropropene	U		0.000887	0.00274	1	05/16/2020 16:49	WG1477261
1,3-Dichloropropane	U		0.000549	0.00548	1	05/16/2020 16:49	WG1477261
cis-1,3-Dichloropropene	U		0.000830	0.00274	1	05/16/2020 16:49	WG1477261
trans-1,3-Dichloropropene	U		0.00125	0.00548	1	05/16/2020 16:49	WG1477261
2,2-Dichloropropane	U		0.00151	0.00274	1	05/16/2020 16:49	WG1477261
Di-isopropyl ether	U		0.000449	0.00110	1	05/16/2020 16:49	WG1477261
Ethylbenzene	U		0.000808	0.00274	1	05/16/2020 16:49	WG1477261
Hexachloro-1,3-butadiene	U		0.00658	0.0274	1	05/16/2020 16:49	WG1477261
Isopropylbenzene	U		0.000466	0.00274	1	05/16/2020 16:49	WG1477261
p-Isopropyltoluene	U		0.00279	0.00548	1	05/16/2020 16:49	WG1477261
2-Butanone (MEK)	U		0.0696	0.110	1	05/16/2020 16:49	WG1477261
Methylene Chloride	U		0.00728	0.0274	1	05/16/2020 16:49	WG1477261
4-Methyl-2-pentanone (MIBK)	U		0.00250	0.0274	1	05/16/2020 16:49	WG1477261
Methyl tert-butyl ether	U		0.000384	0.00110	1	05/16/2020 16:49	WG1477261
Naphthalene	U		0.00535	0.0137	1	05/16/2020 16:49	WG1477261
n-Propylbenzene	U		0.00104	0.00548	1	05/16/2020 16:49	WG1477261
Styrene	U		0.000251	0.0137	1	05/16/2020 16:49	WG1477261
1,1,1,2-Tetrachloroethane	U		0.00104	0.00274	1	05/16/2020 16:49	WG1477261
1,1,2,2-Tetrachloroethane	U		0.000762	0.00274	1	05/16/2020 16:49	WG1477261

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000826	0.00274	1	05/16/2020 16:49	WG1477261
Tetrachloroethene	U		0.000982	0.00274	1	05/16/2020 16:49	WG1477261
Toluene	U		0.00142	0.00548	1	05/16/2020 16:49	WG1477261
1,2,3-Trichlorobenzene	U		0.00803	0.0137	1	05/16/2020 16:49	WG1477261
1,2,4-Trichlorobenzene	U		0.00482	0.0137	1	05/16/2020 16:49	WG1477261
1,1,1-Trichloroethane	U		0.00101	0.00274	1	05/16/2020 16:49	WG1477261
1,1,2-Trichloroethane	U		0.000654	0.00274	1	05/16/2020 16:49	WG1477261
Trichloroethene	U		0.000640	0.00110	1	05/19/2020 04:00	WG1478189
Trichlorofluoromethane	U		0.000906	0.00274	1	05/16/2020 16:49	WG1477261
1,2,3-Trichloropropane	U		0.00178	0.0137	1	05/16/2020 16:49	WG1477261
1,2,4-Trimethylbenzene	U		0.00173	0.00548	1	05/16/2020 16:49	WG1477261
1,2,3-Trimethylbenzene	U		0.00173	0.00548	1	05/16/2020 16:49	WG1477261
1,3,5-Trimethylbenzene	U		0.00219	0.00548	1	05/16/2020 16:49	WG1477261
Vinyl chloride	U	J4	0.00127	0.00274	1	05/16/2020 16:49	WG1477261
Xylenes, Total	U		0.000965	0.00712	1	05/16/2020 16:49	WG1477261
(S) Toluene-d8	*101*			*75.0-131*		*05/16/2020 16:49*	WG1477261
(S) Toluene-d8	*101*			*75.0-131*		*05/19/2020 04:00*	WG1478189
(S) 4-Bromofluorobenzene	*98.6*			*67.0-138*		*05/16/2020 16:49*	WG1477261
(S) 4-Bromofluorobenzene	*99.0*			*67.0-138*		*05/19/2020 04:00*	WG1478189
(S) 1,2-Dichloroethane-d4	*112*			*70.0-130*		*05/16/2020 16:49*	WG1477261
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*05/19/2020 04:00*	WG1478189

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	1.91	J	0.803	4.38	1	05/18/2020 13:06	WG1477619
C22-C32 Hydrocarbons	U		1.46	4.38	1	05/18/2020 13:06	WG1477619
C32-C40 Hydrocarbons	U		1.46	4.38	1	05/18/2020 13:06	WG1477619
(S) o-Terphenyl	*65.1*			*18.0-148*		*05/18/2020 13:06*	WG1477619

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.2		1	05/19/2020 22:11	WG1478938

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0476		0.0200	0.0443	1	05/18/2020 10:59	WG1477007

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	1.64	J	0.554	2.22	1	05/16/2020 19:49	WG1477074
Arsenic	3.00		0.510	2.22	1	05/16/2020 19:49	WG1477074
Barium	117		0.266	0.554	1	05/16/2020 19:49	WG1477074
Beryllium	0.267		0.0887	0.222	1	05/16/2020 19:49	WG1477074
Cadmium	0.822		0.0898	0.554	1	05/16/2020 19:49	WG1477074
Chromium	98.0		0.277	1.11	1	05/16/2020 19:49	WG1477074
Cobalt	10.3		0.255	1.11	1	05/16/2020 19:49	WG1477074
Copper	29.9		0.561	2.22	1	05/16/2020 19:49	WG1477074
Lead	48.8		0.231	0.554	1	05/16/2020 19:49	WG1477074
Molybdenum	U		0.222	0.554	1	05/16/2020 19:49	WG1477074
Nickel	88.5		0.543	2.22	1	05/16/2020 19:49	WG1477074
Selenium	0.773	J	0.684	2.22	1	05/16/2020 19:49	WG1477074
Silver	U		0.253	1.11	1	05/16/2020 19:49	WG1477074
Thallium	U		0.392	2.22	1	05/16/2020 19:49	WG1477074
Vanadium	43.1		0.762	2.22	1	05/16/2020 19:49	WG1477074
Zinc	73.7		1.04	5.54	1	05/16/2020 19:49	WG1477074

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0405	0.0554	1	05/16/2020 17:08	WG1477261
Acrylonitrile	U		0.00400	0.0139	1	05/16/2020 17:08	WG1477261
Benzene	0.000808	J	0.000518	0.00111	1	05/16/2020 17:08	WG1477261
Bromobenzene	U		0.000998	0.0139	1	05/16/2020 17:08	WG1477261
Bromodichloromethane	U		0.000804	0.00277	1	05/16/2020 17:08	WG1477261
Bromoform	U		0.00130	0.0277	1	05/16/2020 17:08	WG1477261
Bromomethane	U		0.00218	0.0139	1	05/16/2020 17:08	WG1477261
n-Butylbenzene	U		0.00582	0.0139	1	05/16/2020 17:08	WG1477261
sec-Butylbenzene	U		0.00319	0.0139	1	05/16/2020 17:08	WG1477261
tert-Butylbenzene	U		0.00216	0.00554	1	05/16/2020 17:08	WG1477261
Carbon tetrachloride	U		0.000995	0.00554	1	05/16/2020 17:08	WG1477261
Chlorobenzene	U		0.000233	0.00277	1	05/16/2020 17:08	WG1477261
Chlorodibromomethane	U		0.000678	0.00277	1	05/16/2020 17:08	WG1477261
Chloroethane	U		0.00188	0.00554	1	05/16/2020 17:08	WG1477261
Chloroform	0.00127	J	0.00114	0.00277	1	05/16/2020 17:08	WG1477261
Chloromethane	U		0.00482	0.0139	1	05/16/2020 17:08	WG1477261
2-Chlorotoluene	U		0.000959	0.00277	1	05/16/2020 17:08	WG1477261
4-Chlorotoluene	U		0.000499	0.00554	1	05/16/2020 17:08	WG1477261
1,2-Dibromo-3-Chloropropane	U		0.00432	0.0277	1	05/16/2020 17:08	WG1477261
1,2-Dibromoethane	U		0.000718	0.00277	1	05/16/2020 17:08	WG1477261
Dibromomethane	U		0.000831	0.00554	1	05/16/2020 17:08	WG1477261
1,2-Dichlorobenzene	U		0.000471	0.00554	1	05/16/2020 17:08	WG1477261
1,3-Dichlorobenzene	U		0.000665	0.00554	1	05/16/2020 17:08	WG1477261
1,4-Dichlorobenzene	U		0.000776	0.00554	1	05/16/2020 17:08	WG1477261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00178	0.00277	1	05/16/2020 17:08	WG1477261
1,1-Dichloroethane	U		0.000544	0.00277	1	05/16/2020 17:08	WG1477261
1,2-Dichloroethane	U		0.000719	0.00277	1	05/16/2020 17:08	WG1477261
1,1-Dichloroethene	U		0.000672	0.00277	1	05/16/2020 17:08	WG1477261
cis-1,2-Dichloroethene	U		0.000814	0.00277	1	05/16/2020 17:08	WG1477261
trans-1,2-Dichloroethene	U		0.00115	0.00554	1	05/16/2020 17:08	WG1477261
1,2-Dichloropropane	U		0.00157	0.00554	1	05/16/2020 17:08	WG1477261
1,1-Dichloropropene	U		0.000897	0.00277	1	05/16/2020 17:08	WG1477261
1,3-Dichloropropane	U		0.000555	0.00554	1	05/16/2020 17:08	WG1477261
cis-1,3-Dichloropropene	U		0.000839	0.00277	1	05/16/2020 17:08	WG1477261
trans-1,3-Dichloropropene	U		0.00126	0.00554	1	05/16/2020 17:08	WG1477261
2,2-Dichloropropane	U		0.00153	0.00277	1	05/16/2020 17:08	WG1477261
Di-isopropyl ether	U		0.000454	0.00111	1	05/16/2020 17:08	WG1477261
Ethylbenzene	0.00597		0.000817	0.00277	1	05/16/2020 17:08	WG1477261
Hexachloro-1,3-butadiene	U		0.00665	0.0277	1	05/16/2020 17:08	WG1477261
Isopropylbenzene	U		0.000471	0.00277	1	05/16/2020 17:08	WG1477261
p-Isopropyltoluene	U		0.00283	0.00554	1	05/16/2020 17:08	WG1477261
2-Butanone (MEK)	U		0.0704	0.111	1	05/16/2020 17:08	WG1477261
Methylene Chloride	U		0.00736	0.0277	1	05/16/2020 17:08	WG1477261
4-Methyl-2-pentanone (MIBK)	U		0.00253	0.0277	1	05/16/2020 17:08	WG1477261
Methyl tert-butyl ether	U		0.000388	0.00111	1	05/16/2020 17:08	WG1477261
Naphthalene	0.0134	J	0.00541	0.0139	1	05/16/2020 17:08	WG1477261
n-Propylbenzene	0.00464	J	0.00105	0.00554	1	05/16/2020 17:08	WG1477261
Styrene	U		0.000254	0.0139	1	05/16/2020 17:08	WG1477261
1,1,1,2-Tetrachloroethane	U		0.00105	0.00277	1	05/16/2020 17:08	WG1477261
1,1,2,2-Tetrachloroethane	U		0.000770	0.00277	1	05/16/2020 17:08	WG1477261
1,1,2-Trichlorotrifluoroethane	U		0.000836	0.00277	1	05/16/2020 17:08	WG1477261
Tetrachloroethene	U		0.000993	0.00277	1	05/16/2020 17:08	WG1477261
Toluene	0.0117		0.00144	0.00554	1	05/16/2020 17:08	WG1477261
1,2,3-Trichlorobenzene	U		0.00813	0.0139	1	05/16/2020 17:08	WG1477261
1,2,4-Trichlorobenzene	U		0.00488	0.0139	1	05/16/2020 17:08	WG1477261
1,1,1-Trichloroethane	U		0.00102	0.00277	1	05/16/2020 17:08	WG1477261
1,1,2-Trichloroethane	U		0.000662	0.00277	1	05/16/2020 17:08	WG1477261
Trichloroethene	U		0.000647	0.00111	1	05/19/2020 04:19	WG1478189
Trichlorofluoromethane	U		0.000917	0.00277	1	05/16/2020 17:08	WG1477261
1,2,3-Trichloropropane	U		0.00180	0.0139	1	05/16/2020 17:08	WG1477261
1,2,4-Trimethylbenzene	0.0413		0.00175	0.00554	1	05/16/2020 17:08	WG1477261
1,2,3-Trimethylbenzene	0.0129		0.00175	0.00554	1	05/16/2020 17:08	WG1477261
1,3,5-Trimethylbenzene	0.0181		0.00222	0.00554	1	05/16/2020 17:08	WG1477261
Vinyl chloride	U	J4	0.00129	0.00277	1	05/16/2020 17:08	WG1477261
Xylenes, Total	0.0624		0.000975	0.00721	1	05/16/2020 17:08	WG1477261
(S) Toluene-d8	*99.7*			*75.0-131*		*05/16/2020 17:08*	WG1477261
(S) Toluene-d8	*100*			*75.0-131*		*05/19/2020 04:19*	WG1478189
(S) 4-Bromofluorobenzene	*99.4*			*67.0-138*		*05/16/2020 17:08*	WG1477261
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*05/19/2020 04:19*	WG1478189
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*		*05/16/2020 17:08*	WG1477261
(S) 1,2-Dichloroethane-d4	*116*			*70.0-130*		*05/19/2020 04:19*	WG1478189

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	66.1		4.07	22.2	5	05/18/2020 16:17	WG1477619
C22-C32 Hydrocarbons	300		7.37	22.2	5	05/18/2020 16:17	WG1477619
C32-C40 Hydrocarbons	77.8		7.37	22.2	5	05/18/2020 16:17	WG1477619
(S) o-Terphenyl	*72.7*			*18.0-148*		*05/18/2020 16:17*	WG1477619

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0131	0.0377	1	05/18/2020 14:47	WG1477089
PCB 1221	U		0.0131	0.0377	1	05/18/2020 14:47	WG1477089
PCB 1232	U		0.0131	0.0377	1	05/18/2020 14:47	WG1477089
PCB 1242	U		0.0131	0.0377	1	05/18/2020 14:47	WG1477089
PCB 1248	U		0.00818	0.0188	1	05/18/2020 14:47	WG1477089
PCB 1254	U		0.00818	0.0188	1	05/18/2020 14:47	WG1477089
PCB 1260	U		0.00818	0.0188	1	05/18/2020 14:47	WG1477089
(S) Decachlorobiphenyl	*72.6*			*10.0-135*		*05/18/2020 14:47*	WG1477089
(S) Tetrachloro-m-xylene	*82.3*			*10.0-139*		*05/18/2020 14:47*	WG1477089

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.6		1	05/19/2020 22:18	WG1478939

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0401	J	0.0201	0.0446	1	05/18/2020 11:02	WG1477007

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	0.701	J	0.558	2.23	1	05/16/2020 19:52	WG1477074
Arsenic	6.72		0.513	2.23	1	05/16/2020 19:52	WG1477074
Barium	222		0.268	0.558	1	05/16/2020 19:52	WG1477074
Beryllium	0.488		0.0893	0.223	1	05/16/2020 19:52	WG1477074
Cadmium	0.707		0.0904	0.558	1	05/16/2020 19:52	WG1477074
Chromium	52.1		0.279	1.12	1	05/16/2020 19:52	WG1477074
Cobalt	12.7		0.257	1.12	1	05/16/2020 19:52	WG1477074
Copper	30.3		0.565	2.23	1	05/16/2020 19:52	WG1477074
Lead	7.21		0.232	0.558	1	05/16/2020 19:52	WG1477074
Molybdenum	0.225	J	0.223	0.558	1	05/16/2020 19:52	WG1477074
Nickel	77.4		0.547	2.23	1	05/16/2020 19:52	WG1477074
Selenium	0.914	J	0.689	2.23	1	05/16/2020 19:52	WG1477074
Silver	U		0.254	1.12	1	05/16/2020 19:52	WG1477074
Thallium	U		0.395	2.23	1	05/16/2020 19:52	WG1477074
Vanadium	48.2		0.767	2.23	1	05/16/2020 19:52	WG1477074
Zinc	66.8		1.05	5.58	1	05/16/2020 19:52	WG1477074

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0407	0.0558	1	05/16/2020 17:27	WG1477261
Acrylonitrile	U		0.00403	0.0140	1	05/16/2020 17:27	WG1477261
Benzene	0.000533	J	0.000521	0.00112	1	05/16/2020 17:27	WG1477261
Bromobenzene	U		0.00100	0.0140	1	05/16/2020 17:27	WG1477261
Bromodichloromethane	U		0.000809	0.00279	1	05/16/2020 17:27	WG1477261
Bromoform	U		0.00131	0.0279	1	05/16/2020 17:27	WG1477261
Bromomethane	U		0.00220	0.0140	1	05/16/2020 17:27	WG1477261
n-Butylbenzene	U		0.00586	0.0140	1	05/16/2020 17:27	WG1477261
sec-Butylbenzene	U		0.00321	0.0140	1	05/16/2020 17:27	WG1477261
tert-Butylbenzene	U		0.00218	0.00558	1	05/16/2020 17:27	WG1477261
Carbon tetrachloride	U		0.00100	0.00558	1	05/16/2020 17:27	WG1477261
Chlorobenzene	U		0.000234	0.00279	1	05/16/2020 17:27	WG1477261
Chlorodibromomethane	U		0.000683	0.00279	1	05/16/2020 17:27	WG1477261
Chloroethane	U		0.00190	0.00558	1	05/16/2020 17:27	WG1477261
Chloroform	U		0.00115	0.00279	1	05/16/2020 17:27	WG1477261
Chloromethane	U		0.00485	0.0140	1	05/16/2020 17:27	WG1477261
2-Chlorotoluene	U		0.000965	0.00279	1	05/16/2020 17:27	WG1477261
4-Chlorotoluene	U		0.000502	0.00558	1	05/16/2020 17:27	WG1477261
1,2-Dibromo-3-Chloropropane	U		0.00435	0.0279	1	05/16/2020 17:27	WG1477261
1,2-Dibromoethane	U		0.000723	0.00279	1	05/16/2020 17:27	WG1477261
Dibromomethane	U		0.000837	0.00558	1	05/16/2020 17:27	WG1477261
1,2-Dichlorobenzene	U		0.000474	0.00558	1	05/16/2020 17:27	WG1477261
1,3-Dichlorobenzene	U		0.000670	0.00558	1	05/16/2020 17:27	WG1477261
1,4-Dichlorobenzene	U		0.000781	0.00558	1	05/16/2020 17:27	WG1477261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00180	0.00279	1	05/16/2020 17:27	WG1477261
1,1-Dichloroethane	U		0.000548	0.00279	1	05/16/2020 17:27	WG1477261
1,2-Dichloroethane	U		0.000724	0.00279	1	05/16/2020 17:27	WG1477261
1,1-Dichloroethene	U		0.000676	0.00279	1	05/16/2020 17:27	WG1477261
cis-1,2-Dichloroethene	U		0.000819	0.00279	1	05/16/2020 17:27	WG1477261
trans-1,2-Dichloroethene	U		0.00116	0.00558	1	05/16/2020 17:27	WG1477261
1,2-Dichloropropane	U		0.00158	0.00558	1	05/16/2020 17:27	WG1477261
1,1-Dichloropropene	U		0.000903	0.00279	1	05/16/2020 17:27	WG1477261
1,3-Dichloropropane	U		0.000559	0.00558	1	05/16/2020 17:27	WG1477261
cis-1,3-Dichloropropene	U		0.000845	0.00279	1	05/16/2020 17:27	WG1477261
trans-1,3-Dichloropropene	U		0.00127	0.00558	1	05/16/2020 17:27	WG1477261
2,2-Dichloropropane	U		0.00154	0.00279	1	05/16/2020 17:27	WG1477261
Di-isopropyl ether	U		0.000458	0.00112	1	05/16/2020 17:27	WG1477261
Ethylbenzene	0.00396		0.000823	0.00279	1	05/16/2020 17:27	WG1477261
Hexachloro-1,3-butadiene	U		0.00670	0.0279	1	05/16/2020 17:27	WG1477261
Isopropylbenzene	U		0.000474	0.00279	1	05/16/2020 17:27	WG1477261
p-Isopropyltoluene	U		0.00285	0.00558	1	05/16/2020 17:27	WG1477261
2-Butanone (MEK)	U		0.0709	0.112	1	05/16/2020 17:27	WG1477261
Methylene Chloride	U		0.00741	0.0279	1	05/16/2020 17:27	WG1477261
4-Methyl-2-pentanone (MIBK)	U		0.00254	0.0279	1	05/16/2020 17:27	WG1477261
Methyl tert-butyl ether	U		0.000391	0.00112	1	05/16/2020 17:27	WG1477261
Naphthalene	0.0106	J	0.00545	0.0140	1	05/16/2020 17:27	WG1477261
n-Propylbenzene	0.00350	J	0.00106	0.00558	1	05/16/2020 17:27	WG1477261
Styrene	U		0.000256	0.0140	1	05/16/2020 17:27	WG1477261
1,1,1,2-Tetrachloroethane	U		0.00106	0.00279	1	05/16/2020 17:27	WG1477261
1,1,2,2-Tetrachloroethane	U		0.000776	0.00279	1	05/16/2020 17:27	WG1477261
1,1,2-Trichlorotrifluoroethane	U		0.000842	0.00279	1	05/16/2020 17:27	WG1477261
Tetrachloroethene	U		0.00100	0.00279	1	05/16/2020 17:27	WG1477261
Toluene	0.00814		0.00145	0.00558	1	05/16/2020 17:27	WG1477261
1,2,3-Trichlorobenzene	U		0.00818	0.0140	1	05/16/2020 17:27	WG1477261
1,2,4-Trichlorobenzene	U		0.00491	0.0140	1	05/16/2020 17:27	WG1477261
1,1,1-Trichloroethane	U		0.00103	0.00279	1	05/16/2020 17:27	WG1477261
1,1,2-Trichloroethane	U		0.000666	0.00279	1	05/16/2020 17:27	WG1477261
Trichloroethene	U		0.000652	0.00112	1	05/16/2020 17:27	WG1477261
Trichlorofluoromethane	U		0.000923	0.00279	1	05/16/2020 17:27	WG1477261
1,2,3-Trichloropropane	U		0.00181	0.0140	1	05/16/2020 17:27	WG1477261
1,2,4-Trimethylbenzene	0.0334		0.00176	0.00558	1	05/16/2020 17:27	WG1477261
1,2,3-Trimethylbenzene	0.0115		0.00176	0.00558	1	05/16/2020 17:27	WG1477261
1,3,5-Trimethylbenzene	0.0181		0.00223	0.00558	1	05/16/2020 17:27	WG1477261
Vinyl chloride	U	J4	0.00129	0.00279	1	05/16/2020 17:27	WG1477261
Xylenes, Total	0.0499		0.000982	0.00725	1	05/16/2020 17:27	WG1477261
(S) Toluene-d8	*104*			*75.0-131*		*05/16/2020 17:27*	WG1477261
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*05/16/2020 17:27*	WG1477261
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*05/16/2020 17:27*	WG1477261

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	0.982	J	0.818	4.46	1	05/18/2020 12:21	WG1477619
C22-C32 Hydrocarbons	3.08	J	1.48	4.46	1	05/18/2020 12:21	WG1477619
C32-C40 Hydrocarbons	U		1.48	4.46	1	05/18/2020 12:21	WG1477619
(S) o-Terphenyl	*72.5*			*18.0-148*		*05/18/2020 12:21*	WG1477619

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.1		1	05/19/2020 22:18	WG1478939

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0410	0.0561	1	05/16/2020 17:46	WG1477261
Acrylonitrile	U		0.00405	0.0140	1	05/16/2020 17:46	WG1477261
Benzene	U		0.000524	0.00112	1	05/16/2020 17:46	WG1477261
Bromobenzene	U		0.00101	0.0140	1	05/16/2020 17:46	WG1477261
Bromodichloromethane	U		0.000814	0.00281	1	05/16/2020 17:46	WG1477261
Bromoform	U		0.00131	0.0281	1	05/16/2020 17:46	WG1477261
Bromomethane	U		0.00221	0.0140	1	05/16/2020 17:46	WG1477261
n-Butylbenzene	U		0.00589	0.0140	1	05/16/2020 17:46	WG1477261
sec-Butylbenzene	U		0.00323	0.0140	1	05/16/2020 17:46	WG1477261
tert-Butylbenzene	U		0.00219	0.00561	1	05/16/2020 17:46	WG1477261
Carbon tetrachloride	U		0.00101	0.00561	1	05/16/2020 17:46	WG1477261
Chlorobenzene	U		0.000236	0.00281	1	05/16/2020 17:46	WG1477261
Chlorodibromomethane	U		0.000687	0.00281	1	05/16/2020 17:46	WG1477261
Chloroethane	U		0.00191	0.00561	1	05/16/2020 17:46	WG1477261
Chloroform	U		0.00116	0.00281	1	05/16/2020 17:46	WG1477261
Chloromethane	U		0.00488	0.0140	1	05/16/2020 17:46	WG1477261
2-Chlorotoluene	U		0.000971	0.00281	1	05/16/2020 17:46	WG1477261
4-Chlorotoluene	U		0.000505	0.00561	1	05/16/2020 17:46	WG1477261
1,2-Dibromo-3-Chloropropane	U		0.00438	0.0281	1	05/16/2020 17:46	WG1477261
1,2-Dibromoethane	U		0.000727	0.00281	1	05/16/2020 17:46	WG1477261
Dibromomethane	U		0.000842	0.00561	1	05/16/2020 17:46	WG1477261
1,2-Dichlorobenzene	U		0.000477	0.00561	1	05/16/2020 17:46	WG1477261
1,3-Dichlorobenzene	U		0.000674	0.00561	1	05/16/2020 17:46	WG1477261
1,4-Dichlorobenzene	U		0.000786	0.00561	1	05/16/2020 17:46	WG1477261
Dichlorodifluoromethane	U		0.00181	0.00281	1	05/16/2020 17:46	WG1477261
1,1-Dichloroethane	U		0.000551	0.00281	1	05/16/2020 17:46	WG1477261
1,2-Dichloroethane	U		0.000729	0.00281	1	05/16/2020 17:46	WG1477261
1,1-Dichloroethene	U		0.000680	0.00281	1	05/16/2020 17:46	WG1477261
cis-1,2-Dichloroethene	U		0.000824	0.00281	1	05/16/2020 17:46	WG1477261
trans-1,2-Dichloroethene	U		0.00117	0.00561	1	05/16/2020 17:46	WG1477261
1,2-Dichloropropane	U		0.00159	0.00561	1	05/16/2020 17:46	WG1477261
1,1-Dichloropropene	U		0.000908	0.00281	1	05/16/2020 17:46	WG1477261
1,3-Dichloropropane	U		0.000562	0.00561	1	05/16/2020 17:46	WG1477261
cis-1,3-Dichloropropene	U		0.000850	0.00281	1	05/16/2020 17:46	WG1477261
trans-1,3-Dichloropropene	U		0.00128	0.00561	1	05/16/2020 17:46	WG1477261
2,2-Dichloropropane	U		0.00155	0.00281	1	05/16/2020 17:46	WG1477261
Di-isopropyl ether	U		0.000460	0.00112	1	05/16/2020 17:46	WG1477261
Ethylbenzene	U		0.000827	0.00281	1	05/16/2020 17:46	WG1477261
Hexachloro-1,3-butadiene	U		0.00674	0.0281	1	05/16/2020 17:46	WG1477261
Isopropylbenzene	U		0.000477	0.00281	1	05/16/2020 17:46	WG1477261
p-Isopropyltoluene	U		0.00286	0.00561	1	05/16/2020 17:46	WG1477261
2-Butanone (MEK)	U		0.0713	0.112	1	05/16/2020 17:46	WG1477261
Methylene Chloride	U		0.00745	0.0281	1	05/16/2020 17:46	WG1477261
4-Methyl-2-pentanone (MIBK)	U		0.00256	0.0281	1	05/16/2020 17:46	WG1477261
Methyl tert-butyl ether	U		0.000393	0.00112	1	05/16/2020 17:46	WG1477261
Naphthalene	U		0.00548	0.0140	1	05/16/2020 17:46	WG1477261
n-Propylbenzene	U		0.00107	0.00561	1	05/16/2020 17:46	WG1477261
Styrene	U		0.000257	0.0140	1	05/16/2020 17:46	WG1477261
1,1,1,2-Tetrachloroethane	U		0.00106	0.00281	1	05/16/2020 17:46	WG1477261
1,1,2,2-Tetrachloroethane	U		0.000780	0.00281	1	05/16/2020 17:46	WG1477261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000846	0.00281	1	05/16/2020 17:46	WG1477261
Tetrachloroethene	U		0.00101	0.00281	1	05/16/2020 17:46	WG1477261
Toluene	U		0.00146	0.00561	1	05/16/2020 17:46	WG1477261
1,2,3-Trichlorobenzene	U		0.00823	0.0140	1	05/16/2020 17:46	WG1477261
1,2,4-Trichlorobenzene	U		0.00494	0.0140	1	05/16/2020 17:46	WG1477261
1,1,1-Trichloroethane	U		0.00104	0.00281	1	05/16/2020 17:46	WG1477261
1,1,2-Trichloroethane	U		0.000670	0.00281	1	05/16/2020 17:46	WG1477261
Trichloroethene	0.000672	J	0.000656	0.00112	1	05/16/2020 17:46	WG1477261
Trichlorofluoromethane	U		0.000928	0.00281	1	05/16/2020 17:46	WG1477261
1,2,3-Trichloropropane	U		0.00182	0.0140	1	05/16/2020 17:46	WG1477261
1,2,4-Trimethylbenzene	U		0.00177	0.00561	1	05/16/2020 17:46	WG1477261
1,2,3-Trimethylbenzene	U		0.00177	0.00561	1	05/16/2020 17:46	WG1477261
1,3,5-Trimethylbenzene	U		0.00225	0.00561	1	05/16/2020 17:46	WG1477261
Vinyl chloride	U	J4	0.00130	0.00281	1	05/16/2020 17:46	WG1477261
Xylenes, Total	0.00104	J	0.000988	0.00730	1	05/16/2020 17:46	WG1477261
(S) Toluene-d8	*103*			*75.0-131*		*05/16/2020 17:46*	WG1477261
(S) 4-Bromofluorobenzene	*97.4*			*67.0-138*		*05/16/2020 17:46*	WG1477261
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*05/16/2020 17:46*	WG1477261

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.823	4.49	1	05/18/2020 12:36	WG1477619
C22-C32 Hydrocarbons	U		1.49	4.49	1	05/18/2020 12:36	WG1477619
C32-C40 Hydrocarbons	U		1.49	4.49	1	05/18/2020 12:36	WG1477619
(S) o-Terphenyl	*94.3*			*18.0-148*		*05/18/2020 12:36*	WG1477619

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.3		1	05/19/2020 22:18	WG1478939

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0404	0.0554	1	05/16/2020 18:05	WG1477261
Acrylonitrile	U		0.00400	0.0138	1	05/16/2020 18:05	WG1477261
Benzene	U		0.000517	0.00111	1	05/16/2020 18:05	WG1477261
Bromobenzene	U		0.000997	0.0138	1	05/16/2020 18:05	WG1477261
Bromodichloromethane	U		0.000803	0.00277	1	05/16/2020 18:05	WG1477261
Bromoform	U		0.00130	0.0277	1	05/16/2020 18:05	WG1477261
Bromomethane	U		0.00218	0.0138	1	05/16/2020 18:05	WG1477261
n-Butylbenzene	U		0.00582	0.0138	1	05/16/2020 18:05	WG1477261
sec-Butylbenzene	U		0.00319	0.0138	1	05/16/2020 18:05	WG1477261
tert-Butylbenzene	U		0.00216	0.00554	1	05/16/2020 18:05	WG1477261
Carbon tetrachloride	U		0.000995	0.00554	1	05/16/2020 18:05	WG1477261
Chlorobenzene	U		0.000233	0.00277	1	05/16/2020 18:05	WG1477261
Chlorodibromomethane	U		0.000678	0.00277	1	05/16/2020 18:05	WG1477261
Chloroethane	U		0.00188	0.00554	1	05/16/2020 18:05	WG1477261
Chloroform	U		0.00114	0.00277	1	05/16/2020 18:05	WG1477261
Chloromethane	U		0.00482	0.0138	1	05/16/2020 18:05	WG1477261
2-Chlorotoluene	U		0.000958	0.00277	1	05/16/2020 18:05	WG1477261
4-Chlorotoluene	U		0.000498	0.00554	1	05/16/2020 18:05	WG1477261
1,2-Dibromo-3-Chloropropane	U		0.00432	0.0277	1	05/16/2020 18:05	WG1477261
1,2-Dibromoethane	U		0.000718	0.00277	1	05/16/2020 18:05	WG1477261
Dibromomethane	U		0.000831	0.00554	1	05/16/2020 18:05	WG1477261
1,2-Dichlorobenzene	U		0.000471	0.00554	1	05/16/2020 18:05	WG1477261
1,3-Dichlorobenzene	U		0.000665	0.00554	1	05/16/2020 18:05	WG1477261
1,4-Dichlorobenzene	U		0.000775	0.00554	1	05/16/2020 18:05	WG1477261
Dichlorodifluoromethane	U		0.00178	0.00277	1	05/16/2020 18:05	WG1477261
1,1-Dichloroethane	U		0.000544	0.00277	1	05/16/2020 18:05	WG1477261
1,2-Dichloroethane	U		0.000719	0.00277	1	05/16/2020 18:05	WG1477261
1,1-Dichloroethene	U		0.000671	0.00277	1	05/16/2020 18:05	WG1477261
cis-1,2-Dichloroethene	U		0.000813	0.00277	1	05/16/2020 18:05	WG1477261
trans-1,2-Dichloroethene	U		0.00115	0.00554	1	05/16/2020 18:05	WG1477261
1,2-Dichloropropane	U		0.00157	0.00554	1	05/16/2020 18:05	WG1477261
1,1-Dichloropropene	U		0.000896	0.00277	1	05/16/2020 18:05	WG1477261
1,3-Dichloropropane	U		0.000555	0.00554	1	05/16/2020 18:05	WG1477261
cis-1,3-Dichloropropene	U		0.000839	0.00277	1	05/16/2020 18:05	WG1477261
trans-1,3-Dichloropropene	U		0.00126	0.00554	1	05/16/2020 18:05	WG1477261
2,2-Dichloropropane	U		0.00153	0.00277	1	05/16/2020 18:05	WG1477261
Di-isopropyl ether	U		0.000454	0.00111	1	05/16/2020 18:05	WG1477261
Ethylbenzene	U		0.000816	0.00277	1	05/16/2020 18:05	WG1477261
Hexachloro-1,3-butadiene	U		0.00665	0.0277	1	05/16/2020 18:05	WG1477261
Isopropylbenzene	U		0.000471	0.00277	1	05/16/2020 18:05	WG1477261
p-Isopropyltoluene	U		0.00282	0.00554	1	05/16/2020 18:05	WG1477261
2-Butanone (MEK)	U		0.0703	0.111	1	05/16/2020 18:05	WG1477261
Methylene Chloride	U		0.00736	0.0277	1	05/16/2020 18:05	WG1477261
4-Methyl-2-pentanone (MIBK)	U		0.00253	0.0277	1	05/16/2020 18:05	WG1477261
Methyl tert-butyl ether	U		0.000388	0.00111	1	05/16/2020 18:05	WG1477261
Naphthalene	U		0.00541	0.0138	1	05/16/2020 18:05	WG1477261
n-Propylbenzene	U		0.00105	0.00554	1	05/16/2020 18:05	WG1477261
Styrene	U		0.000254	0.0138	1	05/16/2020 18:05	WG1477261
1,1,1,2-Tetrachloroethane	U		0.00105	0.00277	1	05/16/2020 18:05	WG1477261
1,1,2,2-Tetrachloroethane	U		0.000770	0.00277	1	05/16/2020 18:05	WG1477261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000835	0.00277	1	05/16/2020 18:05	WG1477261
Tetrachloroethene	U		0.000992	0.00277	1	05/16/2020 18:05	WG1477261
Toluene	U		0.00144	0.00554	1	05/16/2020 18:05	WG1477261
1,2,3-Trichlorobenzene	U		0.00812	0.0138	1	05/16/2020 18:05	WG1477261
1,2,4-Trichlorobenzene	U		0.00487	0.0138	1	05/16/2020 18:05	WG1477261
1,1,1-Trichloroethane	U		0.00102	0.00277	1	05/16/2020 18:05	WG1477261
1,1,2-Trichloroethane	U		0.000661	0.00277	1	05/16/2020 18:05	WG1477261
Trichloroethene	U		0.000647	0.00111	1	05/16/2020 18:05	WG1477261
Trichlorofluoromethane	U		0.000916	0.00277	1	05/16/2020 18:05	WG1477261
1,2,3-Trichloropropane	U		0.00179	0.0138	1	05/16/2020 18:05	WG1477261
1,2,4-Trimethylbenzene	U		0.00175	0.00554	1	05/16/2020 18:05	WG1477261
1,2,3-Trimethylbenzene	U		0.00175	0.00554	1	05/16/2020 18:05	WG1477261
1,3,5-Trimethylbenzene	U		0.00222	0.00554	1	05/16/2020 18:05	WG1477261
Vinyl chloride	U	J4	0.00128	0.00277	1	05/16/2020 18:05	WG1477261
Xylenes, Total	U		0.000975	0.00720	1	05/16/2020 18:05	WG1477261
(S) Toluene-d8	*101*			*75.0-131*		*05/16/2020 18:05*	WG1477261
(S) 4-Bromofluorobenzene	*99.0*			*67.0-138*		*05/16/2020 18:05*	WG1477261
(S) 1,2-Dichloroethane-d4	*114*			*70.0-130*		*05/16/2020 18:05*	WG1477261

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.812	4.43	1	05/18/2020 12:51	WG1477619
C22-C32 Hydrocarbons	U		1.47	4.43	1	05/18/2020 12:51	WG1477619
C32-C40 Hydrocarbons	U		1.47	4.43	1	05/18/2020 12:51	WG1477619
(S) o-Terphenyl	*81.4*			*18.0-148*		*05/18/2020 12:51*	WG1477619

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.9		1	05/19/2020 22:18	WG1478939

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0913		0.0188	0.0417	1	05/18/2020 11:04	WG1477007

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	0.643	J	0.521	2.08	1	05/16/2020 19:55	WG1477074
Arsenic	5.93		0.480	2.08	1	05/16/2020 19:55	WG1477074
Barium	183		0.250	0.521	1	05/16/2020 19:55	WG1477074
Beryllium	0.454		0.0834	0.208	1	05/16/2020 19:55	WG1477074
Cadmium	0.800		0.0844	0.521	1	05/16/2020 19:55	WG1477074
Chromium	55.5		0.261	1.04	1	05/16/2020 19:55	WG1477074
Cobalt	12.4		0.240	1.04	1	05/16/2020 19:55	WG1477074
Copper	38.0		0.527	2.08	1	05/16/2020 19:55	WG1477074
Lead	37.6		0.217	0.521	1	05/16/2020 19:55	WG1477074
Molybdenum	U		0.208	0.521	1	05/16/2020 19:55	WG1477074
Nickel	85.4		0.511	2.08	1	05/16/2020 19:55	WG1477074
Selenium	U		0.643	2.08	1	05/16/2020 19:55	WG1477074
Silver	U		0.238	1.04	1	05/16/2020 19:55	WG1477074
Thallium	U		0.369	2.08	1	05/16/2020 19:55	WG1477074
Vanadium	45.6		0.716	2.08	1	05/16/2020 19:55	WG1477074
Zinc	97.9		0.979	5.21	1	05/16/2020 19:55	WG1477074

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0380	0.0521	1	05/16/2020 18:24	WG1477261
Acrylonitrile	U		0.00376	0.0130	1	05/16/2020 18:24	WG1477261
Benzene	U		0.000487	0.00104	1	05/16/2020 18:24	WG1477261
Bromobenzene	U		0.000938	0.0130	1	05/16/2020 18:24	WG1477261
Bromodichloromethane	U		0.000756	0.00261	1	05/16/2020 18:24	WG1477261
Bromoform	U		0.00122	0.0261	1	05/16/2020 18:24	WG1477261
Bromomethane	U		0.00205	0.0130	1	05/16/2020 18:24	WG1477261
n-Butylbenzene	U		0.00547	0.0130	1	05/16/2020 18:24	WG1477261
sec-Butylbenzene	U		0.00300	0.0130	1	05/16/2020 18:24	WG1477261
tert-Butylbenzene	U		0.00203	0.00521	1	05/16/2020 18:24	WG1477261
Carbon tetrachloride	U		0.000936	0.00521	1	05/16/2020 18:24	WG1477261
Chlorobenzene	U		0.000219	0.00261	1	05/16/2020 18:24	WG1477261
Chlorodibromomethane	U		0.000638	0.00261	1	05/16/2020 18:24	WG1477261
Chloroethane	U		0.00177	0.00521	1	05/16/2020 18:24	WG1477261
Chloroform	U		0.00107	0.00261	1	05/16/2020 18:24	WG1477261
Chloromethane	U		0.00453	0.0130	1	05/16/2020 18:24	WG1477261
2-Chlorotoluene	U		0.000902	0.00261	1	05/16/2020 18:24	WG1477261
4-Chlorotoluene	U		0.000469	0.00521	1	05/16/2020 18:24	WG1477261
1,2-Dibromo-3-Chloropropane	U		0.00407	0.0261	1	05/16/2020 18:24	WG1477261
1,2-Dibromoethane	U		0.000675	0.00261	1	05/16/2020 18:24	WG1477261
Dibromomethane	U		0.000782	0.00521	1	05/16/2020 18:24	WG1477261
1,2-Dichlorobenzene	U		0.000443	0.00521	1	05/16/2020 18:24	WG1477261
1,3-Dichlorobenzene	U		0.000625	0.00521	1	05/16/2020 18:24	WG1477261
1,4-Dichlorobenzene	U		0.000730	0.00521	1	05/16/2020 18:24	WG1477261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00168	0.00261	1	05/16/2020 18:24	WG1477261
1,1-Dichloroethane	U		0.000512	0.00261	1	05/16/2020 18:24	WG1477261
1,2-Dichloroethane	U		0.000677	0.00261	1	05/16/2020 18:24	WG1477261
1,1-Dichloroethene	U		0.000632	0.00261	1	05/16/2020 18:24	WG1477261
cis-1,2-Dichloroethene	U		0.000765	0.00261	1	05/16/2020 18:24	WG1477261
trans-1,2-Dichloroethene	U		0.00108	0.00521	1	05/16/2020 18:24	WG1477261
1,2-Dichloropropane	U		0.00148	0.00521	1	05/16/2020 18:24	WG1477261
1,1-Dichloropropene	U		0.000843	0.00261	1	05/16/2020 18:24	WG1477261
1,3-Dichloropropane	U		0.000522	0.00521	1	05/16/2020 18:24	WG1477261
cis-1,3-Dichloropropene	U		0.000789	0.00261	1	05/16/2020 18:24	WG1477261
trans-1,3-Dichloropropene	U		0.00119	0.00521	1	05/16/2020 18:24	WG1477261
2,2-Dichloropropane	U		0.00144	0.00261	1	05/16/2020 18:24	WG1477261
Di-isopropyl ether	U		0.000427	0.00104	1	05/16/2020 18:24	WG1477261
Ethylbenzene	U		0.000768	0.00261	1	05/16/2020 18:24	WG1477261
Hexachloro-1,3-butadiene	U		0.00625	0.0261	1	05/16/2020 18:24	WG1477261
Isopropylbenzene	U		0.000443	0.00261	1	05/16/2020 18:24	WG1477261
p-Isopropyltoluene	U		0.00266	0.00521	1	05/16/2020 18:24	WG1477261
2-Butanone (MEK)	U		0.0662	0.104	1	05/16/2020 18:24	WG1477261
Methylene Chloride	U		0.00692	0.0261	1	05/16/2020 18:24	WG1477261
4-Methyl-2-pentanone (MIBK)	U		0.00238	0.0261	1	05/16/2020 18:24	WG1477261
Methyl tert-butyl ether	U		0.000365	0.00104	1	05/16/2020 18:24	WG1477261
Naphthalene	U		0.00509	0.0130	1	05/16/2020 18:24	WG1477261
n-Propylbenzene	U		0.000990	0.00521	1	05/16/2020 18:24	WG1477261
Styrene	U		0.000239	0.0130	1	05/16/2020 18:24	WG1477261
1,1,1,2-Tetrachloroethane	U		0.000988	0.00261	1	05/16/2020 18:24	WG1477261
1,1,2,2-Tetrachloroethane	U		0.000724	0.00261	1	05/16/2020 18:24	WG1477261
1,1,2-Trichlorotrifluoroethane	U		0.000786	0.00261	1	05/16/2020 18:24	WG1477261
Tetrachloroethene	U		0.000934	0.00261	1	05/16/2020 18:24	WG1477261
Toluene	U		0.00136	0.00521	1	05/16/2020 18:24	WG1477261
1,2,3-Trichlorobenzene	U		0.00764	0.0130	1	05/16/2020 18:24	WG1477261
1,2,4-Trichlorobenzene	U		0.00459	0.0130	1	05/16/2020 18:24	WG1477261
1,1,1-Trichloroethane	U		0.000962	0.00261	1	05/16/2020 18:24	WG1477261
1,1,2-Trichloroethane	U		0.000622	0.00261	1	05/16/2020 18:24	WG1477261
Trichloroethene	U		0.000609	0.00104	1	05/16/2020 18:24	WG1477261
Trichlorofluoromethane	U		0.000862	0.00261	1	05/16/2020 18:24	WG1477261
1,2,3-Trichloropropane	U		0.00169	0.0130	1	05/16/2020 18:24	WG1477261
1,2,4-Trimethylbenzene	U		0.00165	0.00521	1	05/16/2020 18:24	WG1477261
1,2,3-Trimethylbenzene	U		0.00165	0.00521	1	05/16/2020 18:24	WG1477261
1,3,5-Trimethylbenzene	U		0.00208	0.00521	1	05/16/2020 18:24	WG1477261
Vinyl chloride	U	J4	0.00121	0.00261	1	05/16/2020 18:24	WG1477261
Xylenes, Total	U		0.000917	0.00678	1	05/16/2020 18:24	WG1477261
(S) Toluene-d8	*100*			*75.0-131*		*05/16/2020 18:24*	WG1477261
(S) 4-Bromofluorobenzene	*99.4*			*67.0-138*		*05/16/2020 18:24*	WG1477261
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*05/16/2020 18:24*	WG1477261

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		15.3	83.4	20	05/18/2020 14:34	WG1477619
C22-C32 Hydrocarbons	122		27.7	83.4	20	05/18/2020 14:34	WG1477619
C32-C40 Hydrocarbons	124		27.7	83.4	20	05/18/2020 14:34	WG1477619
(S) o-Terphenyl	*80.9*	J7		*18.0-148*		*05/18/2020 14:34*	WG1477619

Sample Narrative:

L1217589-48 WG1477619: Dilution due to matrix.

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0123	0.0354	1	05/18/2020 15:01	WG1477089
PCB 1221	U		0.0123	0.0354	1	05/18/2020 15:01	WG1477089
PCB 1232	U		0.0123	0.0354	1	05/18/2020 15:01	WG1477089
PCB 1242	U		0.0123	0.0354	1	05/18/2020 15:01	WG1477089
PCB 1248	U		0.00769	0.0177	1	05/18/2020 15:01	WG1477089
PCB 1254	U		0.00769	0.0177	1	05/18/2020 15:01	WG1477089
PCB 1260	U		0.00769	0.0177	1	05/18/2020 15:01	WG1477089
(S) Decachlorobiphenyl	*75.2*			*10.0-135*		*05/18/2020 15:01*	WG1477089
(S) Tetrachloro-m-xylene	*87.8*			*10.0-139*		*05/18/2020 15:01*	WG1477089

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.0		1	05/19/2020 22:18	WG1478939

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0209	0.0465	1	05/18/2020 11:07	WG1477007

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.582	2.33	1	05/16/2020 20:02	WG1477074
Arsenic	6.37		0.535	2.33	1	05/16/2020 20:02	WG1477074
Barium	243		0.279	0.582	1	05/16/2020 20:02	WG1477074
Beryllium	0.491		0.0931	0.233	1	05/16/2020 20:02	WG1477074
Cadmium	0.654		0.0942	0.582	1	05/16/2020 20:02	WG1477074
Chromium	52.2		0.291	1.16	1	05/16/2020 20:02	WG1477074
Cobalt	11.9		0.268	1.16	1	05/16/2020 20:02	WG1477074
Copper	32.9		0.589	2.33	1	05/16/2020 20:02	WG1477074
Lead	7.24		0.242	0.582	1	05/16/2020 20:02	WG1477074
Molybdenum	0.671		0.233	0.582	1	05/16/2020 20:02	WG1477074
Nickel	79.5		0.570	2.33	1	05/16/2020 20:02	WG1477074
Selenium	U		0.718	2.33	1	05/16/2020 20:02	WG1477074
Silver	U		0.265	1.16	1	05/16/2020 20:02	WG1477074
Thallium	U		0.412	2.33	1	05/16/2020 20:02	WG1477074
Vanadium	46.5		0.799	2.33	1	05/16/2020 20:02	WG1477074
Zinc	67.7		1.09	5.82	1	05/16/2020 20:02	WG1477074

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0425	0.0582	1	05/16/2020 18:43	WG1477261
Acrylonitrile	U		0.00420	0.0145	1	05/16/2020 18:43	WG1477261
Benzene	U		0.000543	0.00116	1	05/16/2020 18:43	WG1477261
Bromobenzene	U		0.00105	0.0145	1	05/16/2020 18:43	WG1477261
Bromodichloromethane	U		0.000843	0.00291	1	05/16/2020 18:43	WG1477261
Bromoform	U		0.00136	0.0291	1	05/16/2020 18:43	WG1477261
Bromomethane	U		0.00229	0.0145	1	05/16/2020 18:43	WG1477261
n-Butylbenzene	U		0.00611	0.0145	1	05/16/2020 18:43	WG1477261
sec-Butylbenzene	U		0.00335	0.0145	1	05/16/2020 18:43	WG1477261
tert-Butylbenzene	U		0.00227	0.00582	1	05/16/2020 18:43	WG1477261
Carbon tetrachloride	U		0.00104	0.00582	1	05/16/2020 18:43	WG1477261
Chlorobenzene	U		0.000244	0.00291	1	05/16/2020 18:43	WG1477261
Chlorodibromomethane	U		0.000712	0.00291	1	05/16/2020 18:43	WG1477261
Chloroethane	U		0.00198	0.00582	1	05/16/2020 18:43	WG1477261
Chloroform	U		0.00120	0.00291	1	05/16/2020 18:43	WG1477261
Chloromethane	U		0.00506	0.0145	1	05/16/2020 18:43	WG1477261
2-Chlorotoluene	U		0.00101	0.00291	1	05/16/2020 18:43	WG1477261
4-Chlorotoluene	U		0.000523	0.00582	1	05/16/2020 18:43	WG1477261
1,2-Dibromo-3-Chloropropane	U		0.00454	0.0291	1	05/16/2020 18:43	WG1477261
1,2-Dibromoethane	U		0.000754	0.00291	1	05/16/2020 18:43	WG1477261
Dibromomethane	U		0.000872	0.00582	1	05/16/2020 18:43	WG1477261
1,2-Dichlorobenzene	U		0.000494	0.00582	1	05/16/2020 18:43	WG1477261
1,3-Dichlorobenzene	U		0.000698	0.00582	1	05/16/2020 18:43	WG1477261
1,4-Dichlorobenzene	U		0.000814	0.00582	1	05/16/2020 18:43	WG1477261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00187	0.00291	1	05/16/2020 18:43	WG1477261
1,1-Dichloroethane	U		0.000571	0.00291	1	05/16/2020 18:43	WG1477261
1,2-Dichloroethane	U		0.000755	0.00291	1	05/16/2020 18:43	WG1477261
1,1-Dichloroethene	U		0.000705	0.00291	1	05/16/2020 18:43	WG1477261
cis-1,2-Dichloroethene	U		0.000854	0.00291	1	05/16/2020 18:43	WG1477261
trans-1,2-Dichloroethene	U		0.00121	0.00582	1	05/16/2020 18:43	WG1477261
1,2-Dichloropropane	U		0.00165	0.00582	1	05/16/2020 18:43	WG1477261
1,1-Dichloropropene	U		0.000941	0.00291	1	05/16/2020 18:43	WG1477261
1,3-Dichloropropane	U		0.000583	0.00582	1	05/16/2020 18:43	WG1477261
cis-1,3-Dichloropropene	U		0.000881	0.00291	1	05/16/2020 18:43	WG1477261
trans-1,3-Dichloropropene	U		0.00133	0.00582	1	05/16/2020 18:43	WG1477261
2,2-Dichloropropane	U		0.00161	0.00291	1	05/16/2020 18:43	WG1477261
Di-isopropyl ether	U		0.000477	0.00116	1	05/16/2020 18:43	WG1477261
Ethylbenzene	U		0.000857	0.00291	1	05/16/2020 18:43	WG1477261
Hexachloro-1,3-butadiene	U		0.00698	0.0291	1	05/16/2020 18:43	WG1477261
Isopropylbenzene	U		0.000494	0.00291	1	05/16/2020 18:43	WG1477261
p-Isopropyltoluene	U		0.00297	0.00582	1	05/16/2020 18:43	WG1477261
2-Butanone (MEK)	U		0.0739	0.116	1	05/16/2020 18:43	WG1477261
Methylene Chloride	U		0.00772	0.0291	1	05/16/2020 18:43	WG1477261
4-Methyl-2-pentanone (MIBK)	U		0.00265	0.0291	1	05/16/2020 18:43	WG1477261
Methyl tert-butyl ether	U		0.000407	0.00116	1	05/16/2020 18:43	WG1477261
Naphthalene	U		0.00568	0.0145	1	05/16/2020 18:43	WG1477261
n-Propylbenzene	U		0.00111	0.00582	1	05/16/2020 18:43	WG1477261
Styrene	U		0.000266	0.0145	1	05/16/2020 18:43	WG1477261
1,1,1,2-Tetrachloroethane	U		0.00110	0.00291	1	05/16/2020 18:43	WG1477261
1,1,2,2-Tetrachloroethane	U		0.000808	0.00291	1	05/16/2020 18:43	WG1477261
1,1,2-Trichlorotrifluoroethane	U		0.000877	0.00291	1	05/16/2020 18:43	WG1477261
Tetrachloroethene	U		0.00104	0.00291	1	05/16/2020 18:43	WG1477261
Toluene	U		0.00151	0.00582	1	05/16/2020 18:43	WG1477261
1,2,3-Trichlorobenzene	U		0.00853	0.0145	1	05/16/2020 18:43	WG1477261
1,2,4-Trichlorobenzene	U		0.00512	0.0145	1	05/16/2020 18:43	WG1477261
1,1,1-Trichloroethane	U		0.00107	0.00291	1	05/16/2020 18:43	WG1477261
1,1,2-Trichloroethane	U		0.000694	0.00291	1	05/16/2020 18:43	WG1477261
Trichloroethene	U		0.000679	0.00116	1	05/16/2020 18:43	WG1477261
Trichlorofluoromethane	U		0.000962	0.00291	1	05/16/2020 18:43	WG1477261
1,2,3-Trichloropropane	U		0.00188	0.0145	1	05/16/2020 18:43	WG1477261
1,2,4-Trimethylbenzene	U		0.00184	0.00582	1	05/16/2020 18:43	WG1477261
1,2,3-Trimethylbenzene	U		0.00184	0.00582	1	05/16/2020 18:43	WG1477261
1,3,5-Trimethylbenzene	U		0.00233	0.00582	1	05/16/2020 18:43	WG1477261
Vinyl chloride	U	J4	0.00135	0.00291	1	05/16/2020 18:43	WG1477261
Xylenes, Total	U		0.00102	0.00756	1	05/16/2020 18:43	WG1477261
(S) Toluene-d8	*100*			*75.0-131*		*05/16/2020 18:43*	WG1477261
(S) 4-Bromofluorobenzene	*98.1*			*67.0-138*		*05/16/2020 18:43*	WG1477261
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*05/16/2020 18:43*	WG1477261

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.853	4.65	1	05/18/2020 13:36	WG1477619
C22-C32 Hydrocarbons	U		1.55	4.65	1	05/18/2020 13:36	WG1477619
C32-C40 Hydrocarbons	U		1.55	4.65	1	05/18/2020 13:36	WG1477619
(S) o-Terphenyl	*25.5*			*18.0-148*		*05/18/2020 13:36*	WG1477619

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.3		1	05/19/2020 22:18	WG1478939

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0391	0.0536	1	05/16/2020 19:02	WG1477261
Acrylonitrile	U		0.00387	0.0134	1	05/16/2020 19:02	WG1477261
Benzene	U		0.000501	0.00107	1	05/16/2020 19:02	WG1477261
Bromobenzene	U		0.000965	0.0134	1	05/16/2020 19:02	WG1477261
Bromodichloromethane	U		0.000777	0.00268	1	05/16/2020 19:02	WG1477261
Bromoform	U		0.00125	0.0268	1	05/16/2020 19:02	WG1477261
Bromomethane	U		0.00211	0.0134	1	05/16/2020 19:02	WG1477261
n-Butylbenzene	U		0.00563	0.0134	1	05/16/2020 19:02	WG1477261
sec-Butylbenzene	U		0.00309	0.0134	1	05/16/2020 19:02	WG1477261
tert-Butylbenzene	U		0.00209	0.00536	1	05/16/2020 19:02	WG1477261
Carbon tetrachloride	U		0.000962	0.00536	1	05/16/2020 19:02	WG1477261
Chlorobenzene	U		0.000225	0.00268	1	05/16/2020 19:02	WG1477261
Chlorodibromomethane	U		0.000656	0.00268	1	05/16/2020 19:02	WG1477261
Chloroethane	U		0.00182	0.00536	1	05/16/2020 19:02	WG1477261
Chloroform	U		0.00110	0.00268	1	05/16/2020 19:02	WG1477261
Chloromethane	U		0.00466	0.0134	1	05/16/2020 19:02	WG1477261
2-Chlorotoluene	U		0.000927	0.00268	1	05/16/2020 19:02	WG1477261
4-Chlorotoluene	U		0.000482	0.00536	1	05/16/2020 19:02	WG1477261
1,2-Dibromo-3-Chloropropane	U		0.00418	0.0268	1	05/16/2020 19:02	WG1477261
1,2-Dibromoethane	U		0.000695	0.00268	1	05/16/2020 19:02	WG1477261
Dibromomethane	U		0.000804	0.00536	1	05/16/2020 19:02	WG1477261
1,2-Dichlorobenzene	U		0.000456	0.00536	1	05/16/2020 19:02	WG1477261
1,3-Dichlorobenzene	U		0.000643	0.00536	1	05/16/2020 19:02	WG1477261
1,4-Dichlorobenzene	U		0.000750	0.00536	1	05/16/2020 19:02	WG1477261
Dichlorodifluoromethane	U		0.00173	0.00268	1	05/16/2020 19:02	WG1477261
1,1-Dichloroethane	U		0.000526	0.00268	1	05/16/2020 19:02	WG1477261
1,2-Dichloroethane	U		0.000696	0.00268	1	05/16/2020 19:02	WG1477261
1,1-Dichloroethene	U		0.000650	0.00268	1	05/16/2020 19:02	WG1477261
cis-1,2-Dichloroethene	U		0.000787	0.00268	1	05/16/2020 19:02	WG1477261
trans-1,2-Dichloroethene	U		0.00111	0.00536	1	05/16/2020 19:02	WG1477261
1,2-Dichloropropane	U		0.00152	0.00536	1	05/16/2020 19:02	WG1477261
1,1-Dichloropropene	U		0.000867	0.00268	1	05/16/2020 19:02	WG1477261
1,3-Dichloropropane	U		0.000537	0.00536	1	05/16/2020 19:02	WG1477261
cis-1,3-Dichloropropene	U		0.000811	0.00268	1	05/16/2020 19:02	WG1477261
trans-1,3-Dichloropropene	U		0.00122	0.00536	1	05/16/2020 19:02	WG1477261
2,2-Dichloropropane	U		0.00148	0.00268	1	05/16/2020 19:02	WG1477261
Di-isopropyl ether	U		0.000439	0.00107	1	05/16/2020 19:02	WG1477261
Ethylbenzene	U		0.000790	0.00268	1	05/16/2020 19:02	WG1477261
Hexachloro-1,3-butadiene	U		0.00643	0.0268	1	05/16/2020 19:02	WG1477261
Isopropylbenzene	U		0.000456	0.00268	1	05/16/2020 19:02	WG1477261
p-Isopropyltoluene	U		0.00273	0.00536	1	05/16/2020 19:02	WG1477261
2-Butanone (MEK)	U		0.0681	0.107	1	05/16/2020 19:02	WG1477261
Methylene Chloride	U		0.00712	0.0268	1	05/16/2020 19:02	WG1477261
4-Methyl-2-pentanone (MIBK)	U		0.00244	0.0268	1	05/16/2020 19:02	WG1477261
Methyl tert-butyl ether	U		0.000375	0.00107	1	05/16/2020 19:02	WG1477261
Naphthalene	U		0.00523	0.0134	1	05/16/2020 19:02	WG1477261
n-Propylbenzene	U		0.00102	0.00536	1	05/16/2020 19:02	WG1477261
Styrene	U		0.000245	0.0134	1	05/16/2020 19:02	WG1477261
1,1,1,2-Tetrachloroethane	U		0.00102	0.00268	1	05/16/2020 19:02	WG1477261
1,1,2,2-Tetrachloroethane	U		0.000745	0.00268	1	05/16/2020 19:02	WG1477261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000808	0.00268	1	05/16/2020 19:02	WG1477261
Tetrachloroethene	U		0.000960	0.00268	1	05/16/2020 19:02	WG1477261
Toluene	U		0.00139	0.00536	1	05/16/2020 19:02	WG1477261
1,2,3-Trichlorobenzene	U		0.00786	0.0134	1	05/16/2020 19:02	WG1477261
1,2,4-Trichlorobenzene	U		0.00472	0.0134	1	05/16/2020 19:02	WG1477261
1,1,1-Trichloroethane	U		0.000989	0.00268	1	05/16/2020 19:02	WG1477261
1,1,2-Trichloroethane	U		0.000640	0.00268	1	05/16/2020 19:02	WG1477261
Trichloroethene	U		0.000626	0.00107	1	05/16/2020 19:02	WG1477261
Trichlorofluoromethane	U		0.000886	0.00268	1	05/16/2020 19:02	WG1477261
1,2,3-Trichloropropane	U		0.00174	0.0134	1	05/16/2020 19:02	WG1477261
1,2,4-Trimethylbenzene	U		0.00169	0.00536	1	05/16/2020 19:02	WG1477261
1,2,3-Trimethylbenzene	U		0.00169	0.00536	1	05/16/2020 19:02	WG1477261
1,3,5-Trimethylbenzene	U		0.00214	0.00536	1	05/16/2020 19:02	WG1477261
Vinyl chloride	U	J4	0.00124	0.00268	1	05/16/2020 19:02	WG1477261
Xylenes, Total	U		0.000943	0.00697	1	05/16/2020 19:02	WG1477261
(S) Toluene-d8	*98.2*			*75.0-131*		*05/16/2020 19:02*	WG1477261
(S) 4-Bromofluorobenzene	*95.6*			*67.0-138*		*05/16/2020 19:02*	WG1477261
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*05/16/2020 19:02*	WG1477261

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.786	4.29	1	05/18/2020 13:51	WG1477619
C22-C32 Hydrocarbons	3.22	J	1.43	4.29	1	05/18/2020 13:51	WG1477619
C32-C40 Hydrocarbons	U		1.43	4.29	1	05/18/2020 13:51	WG1477619
(S) o-Terphenyl	*97.1*			*18.0-148*		*05/18/2020 13:51*	WG1477619

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.9		1	05/19/2020 22:18	WG1478939

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0441	0.0603	1	05/16/2020 19:21	WG1477261
Acrylonitrile	U		0.00436	0.0151	1	05/16/2020 19:21	WG1477261
Benzene	U		0.000564	0.00121	1	05/16/2020 19:21	WG1477261
Bromobenzene	U		0.00109	0.0151	1	05/16/2020 19:21	WG1477261
Bromodichloromethane	U		0.000875	0.00302	1	05/16/2020 19:21	WG1477261
Bromoform	U		0.00141	0.0302	1	05/16/2020 19:21	WG1477261
Bromomethane	U		0.00238	0.0151	1	05/16/2020 19:21	WG1477261
n-Butylbenzene	U		0.00634	0.0151	1	05/16/2020 19:21	WG1477261
sec-Butylbenzene	U		0.00348	0.0151	1	05/16/2020 19:21	WG1477261
tert-Butylbenzene	U		0.00235	0.00603	1	05/16/2020 19:21	WG1477261
Carbon tetrachloride	U		0.00108	0.00603	1	05/16/2020 19:21	WG1477261
Chlorobenzene	U		0.000253	0.00302	1	05/16/2020 19:21	WG1477261
Chlorodibromomethane	U		0.000739	0.00302	1	05/16/2020 19:21	WG1477261
Chloroethane	U		0.00205	0.00603	1	05/16/2020 19:21	WG1477261
Chloroform	U		0.00124	0.00302	1	05/16/2020 19:21	WG1477261
Chloromethane	U		0.00525	0.0151	1	05/16/2020 19:21	WG1477261
2-Chlorotoluene	U		0.00104	0.00302	1	05/16/2020 19:21	WG1477261
4-Chlorotoluene	U		0.000543	0.00603	1	05/16/2020 19:21	WG1477261
1,2-Dibromo-3-Chloropropane	U		0.00471	0.0302	1	05/16/2020 19:21	WG1477261
1,2-Dibromoethane	U		0.000782	0.00302	1	05/16/2020 19:21	WG1477261
Dibromomethane	U		0.000905	0.00603	1	05/16/2020 19:21	WG1477261
1,2-Dichlorobenzene	U		0.000513	0.00603	1	05/16/2020 19:21	WG1477261
1,3-Dichlorobenzene	U		0.000724	0.00603	1	05/16/2020 19:21	WG1477261
1,4-Dichlorobenzene	U		0.000845	0.00603	1	05/16/2020 19:21	WG1477261
Dichlorodifluoromethane	U		0.00194	0.00302	1	05/16/2020 19:21	WG1477261
1,1-Dichloroethane	U		0.000593	0.00302	1	05/16/2020 19:21	WG1477261
1,2-Dichloroethane	U		0.000783	0.00302	1	05/16/2020 19:21	WG1477261
1,1-Dichloroethene	U		0.000731	0.00302	1	05/16/2020 19:21	WG1477261
cis-1,2-Dichloroethene	U		0.000886	0.00302	1	05/16/2020 19:21	WG1477261
trans-1,2-Dichloroethene	U		0.00126	0.00603	1	05/16/2020 19:21	WG1477261
1,2-Dichloropropane	U		0.00171	0.00603	1	05/16/2020 19:21	WG1477261
1,1-Dichloropropene	U		0.000976	0.00302	1	05/16/2020 19:21	WG1477261
1,3-Dichloropropane	U		0.000605	0.00603	1	05/16/2020 19:21	WG1477261
cis-1,3-Dichloropropene	U		0.000914	0.00302	1	05/16/2020 19:21	WG1477261
trans-1,3-Dichloropropene	U		0.00138	0.00603	1	05/16/2020 19:21	WG1477261
2,2-Dichloropropane	U		0.00167	0.00302	1	05/16/2020 19:21	WG1477261
Di-isopropyl ether	U		0.000495	0.00121	1	05/16/2020 19:21	WG1477261
Ethylbenzene	U		0.000889	0.00302	1	05/16/2020 19:21	WG1477261
Hexachloro-1,3-butadiene	U		0.00724	0.0302	1	05/16/2020 19:21	WG1477261
Isopropylbenzene	U		0.000513	0.00302	1	05/16/2020 19:21	WG1477261
p-Isopropyltoluene	U		0.00308	0.00603	1	05/16/2020 19:21	WG1477261
2-Butanone (MEK)	U		0.0766	0.121	1	05/16/2020 19:21	WG1477261
Methylene Chloride	U		0.00801	0.0302	1	05/16/2020 19:21	WG1477261
4-Methyl-2-pentanone (MIBK)	U		0.00275	0.0302	1	05/16/2020 19:21	WG1477261
Methyl tert-butyl ether	U		0.000422	0.00121	1	05/16/2020 19:21	WG1477261
Naphthalene	U		0.00589	0.0151	1	05/16/2020 19:21	WG1477261
n-Propylbenzene	U		0.00115	0.00603	1	05/16/2020 19:21	WG1477261
Styrene	U		0.000276	0.0151	1	05/16/2020 19:21	WG1477261
1,1,1,2-Tetrachloroethane	U		0.00114	0.00302	1	05/16/2020 19:21	WG1477261
1,1,2,2-Tetrachloroethane	U		0.000839	0.00302	1	05/16/2020 19:21	WG1477261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000910	0.00302	1	05/16/2020 19:21	WG1477261
Tetrachloroethene	U		0.00108	0.00302	1	05/16/2020 19:21	WG1477261
Toluene	U		0.00157	0.00603	1	05/16/2020 19:21	WG1477261
1,2,3-Trichlorobenzene	U		0.00885	0.0151	1	05/16/2020 19:21	WG1477261
1,2,4-Trichlorobenzene	U		0.00531	0.0151	1	05/16/2020 19:21	WG1477261
1,1,1-Trichloroethane	U		0.00111	0.00302	1	05/16/2020 19:21	WG1477261
1,1,2-Trichloroethane	U		0.000721	0.00302	1	05/16/2020 19:21	WG1477261
Trichloroethene	U		0.000705	0.00121	1	05/16/2020 19:21	WG1477261
Trichlorofluoromethane	U		0.000998	0.00302	1	05/16/2020 19:21	WG1477261
1,2,3-Trichloropropane	U		0.00196	0.0151	1	05/16/2020 19:21	WG1477261
1,2,4-Trimethylbenzene	U		0.00191	0.00603	1	05/16/2020 19:21	WG1477261
1,2,3-Trimethylbenzene	U		0.00191	0.00603	1	05/16/2020 19:21	WG1477261
1,3,5-Trimethylbenzene	U		0.00241	0.00603	1	05/16/2020 19:21	WG1477261
Vinyl chloride	U	J4	0.00140	0.00302	1	05/16/2020 19:21	WG1477261
Xylenes, Total	U		0.00106	0.00784	1	05/16/2020 19:21	WG1477261
(S) Toluene-d8	*99.0*			*75.0-131*		*05/16/2020 19:21*	WG1477261
(S) 4-Bromofluorobenzene	*99.9*			*67.0-138*		*05/16/2020 19:21*	WG1477261
(S) 1,2-Dichloroethane-d4	*112*			*70.0-130*		*05/16/2020 19:21*	WG1477261

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.885	4.83	1	05/18/2020 13:21	WG1477619
C22-C32 Hydrocarbons	U		1.61	4.83	1	05/18/2020 13:21	WG1477619
C32-C40 Hydrocarbons	U		1.61	4.83	1	05/18/2020 13:21	WG1477619
(S) o-Terphenyl	*72.7*			*18.0-148*		*05/18/2020 13:21*	WG1477619

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.0		1	05/19/2020 22:18	WG1478939

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
PCB 1016	U		0.0122	0.0350	1	05/18/2020 15:15	WG1477089
PCB 1221	U		0.0122	0.0350	1	05/18/2020 15:15	WG1477089
PCB 1232	U		0.0122	0.0350	1	05/18/2020 15:15	WG1477089
PCB 1242	U		0.0122	0.0350	1	05/18/2020 15:15	WG1477089
PCB 1248	U		0.00761	0.0175	1	05/18/2020 15:15	WG1477089
PCB 1254	U		0.00761	0.0175	1	05/18/2020 15:15	WG1477089
PCB 1260	U		0.00761	0.0175	1	05/18/2020 15:15	WG1477089
(S) Decachlorobiphenyl	*66.7*			*10.0-135*		*05/18/2020 15:15*	WG1477089
(S) Tetrachloro-m-xylene	*74.9*			*10.0-139*		*05/18/2020 15:15*	WG1477089

Method Blank (MB)

(MB) R3530035-1 05/19/20 21:38

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1217589-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1217589-02 05/19/20 21:38 • (DUP) R3530035-3 05/19/20 21:38

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	92.2	92.6	1	0.418		10

Laboratory Control Sample (LCS)

(LCS) R3530035-2 05/19/20 21:38

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.1	100	85.0-115	

Method Blank (MB)

(MB) R3530037-1 05/19/20 21:45

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1217589-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1217589-12 05/19/20 21:45 • (DUP) R3530037-3 05/19/20 21:45

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	91.8	87.1	1	5.26		10

Laboratory Control Sample (LCS)

(LCS) R3530037-2 05/19/20 21:45

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3530040-1 05/19/20 21:53

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1217589-18 Original Sample (OS) • Duplicate (DUP)

(OS) L1217589-18 05/19/20 21:53 • (DUP) R3530040-3 05/19/20 21:53

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	90.0	92.7	1	2.96		10

Laboratory Control Sample (LCS)

(LCS) R3530040-2 05/19/20 21:53

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.1	100	85.0-115	

Method Blank (MB)

(MB) R3530042-1 05/19/20 21:54

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1217589-29 Original Sample (OS) • Duplicate (DUP)

(OS) L1217589-29 05/19/20 21:54 • (DUP) R3530042-3 05/19/20 21:54

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	82.5	82.5	1	0.0474		10

Laboratory Control Sample (LCS)

(LCS) R3530042-2 05/19/20 21:54

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.1	100	85.0-115	

Method Blank (MB)

(MB) R3530044-1 05/19/20 22:11

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1217589-37 Original Sample (OS) • Duplicate (DUP)

(OS) L1217589-37 05/19/20 22:11 • (DUP) R3530044-3 05/19/20 22:11

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	84.5	84.7	1	0.209		10

Laboratory Control Sample (LCS)

(LCS) R3530044-2 05/19/20 22:11

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.1	100	85.0-115	

Method Blank (MB)

(MB) R3530047-1 05/19/20 22:18

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1217589-48 Original Sample (OS) • Duplicate (DUP)

(OS) L1217589-48 05/19/20 22:18 • (DUP) R3530047-3 05/19/20 22:18

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	95.9	94.9	1	1.07		10

Laboratory Control Sample (LCS)

(LCS) R3530047-2 05/19/20 22:18

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	99.9	85.0-115	

Method Blank (MB)

(MB) R3529041-1 05/18/20 09:49

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.0180	0.0400

Laboratory Control Sample (LCS)

(LCS) R3529041-2 05/18/20 09:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.500	0.439	87.8	80.0-120	

L1217589-32 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1217589-32 05/18/20 09:54 • (MS) R3529041-3 05/18/20 10:02 • (MSD) R3529041-4 05/18/20 10:04

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.575	0.110	0.610	0.592	86.9	83.7	1	75.0-125			3.06	20

Method Blank (MB)

(MB) R3528960-1 05/18/20 08:38

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.0180	0.0400

Laboratory Control Sample (LCS)

(LCS) R3528960-2 05/18/20 08:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.500	0.462	92.5	80.0-120	

Method Blank (MB)

(MB) R3528834-1 05/16/20 18:03

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Antimony	U		0.500	2.00
Arsenic	U		0.460	2.00
Barium	U		0.240	0.500
Beryllium	U		0.0800	0.200
Cadmium	U		0.0810	0.500
Chromium	U		0.250	1.00
Cobalt	U		0.230	1.00
Lead	U		0.208	0.500
Molybdenum	U		0.200	0.500
Nickel	U		0.490	2.00
Selenium	U		0.617	2.00
Silver	U		0.228	1.00
Thallium	U		0.354	2.00
Vanadium	U		0.687	2.00
Zinc	U		0.939	5.00

Method Blank (MB)

(MB) R3528860-1 05/17/20 23:49

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Copper	U		0.506	2.00

Laboratory Control Sample (LCS)

(LCS) R3528834-2 05/16/20 18:06

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	100	104	104	80.0-120	
Arsenic	100	102	102	80.0-120	
Barium	100	112	112	80.0-120	
Beryllium	100	108	108	80.0-120	
Cadmium	100	102	102	80.0-120	
Chromium	100	107	107	80.0-120	
Cobalt	100	109	109	80.0-120	
Lead	100	105	105	80.0-120	
Molybdenum	100	110	110	80.0-120	
Nickel	100	108	108	80.0-120	
Selenium	100	102	102	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3528834-2 05/16/20 18:06

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Silver	20.0	19.9	99.6	80.0-120	
Thallium	100	103	103	80.0-120	
Vanadium	100	108	108	80.0-120	
Zinc	100	104	104	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3528860-2 05/18/20 02:30

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Copper	100	105	105	80.0-120	

L1217589-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1217589-14 05/16/20 18:08 • (MS) R3528834-9 05/16/20 18:16 • (MSD) R3528834-10 05/16/20 18:19

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	107	1.56	45.4	48.2	41.0	43.5	1	75.0-125	J6	J6	5.88	20
Arsenic	107	5.24	93.0	101	81.9	89.7	1	75.0-125			8.62	20
Barium	107	181	264	284	77.2	95.5	1	75.0-125			7.13	20
Beryllium	107	0.402	90.4	99.9	84.1	93.0	1	75.0-125			9.97	20
Cadmium	107	0.622	88.0	96.4	81.6	89.4	1	75.0-125			9.08	20
Chromium	107	51.2	143	159	85.3	101	1	75.0-125			11.0	20
Cobalt	107	9.40	115	124	98.4	107	1	75.0-125			7.52	20
Copper	107	25.5	118	130	86.2	97.5	1	75.0-125			9.75	20
Lead	107	5.05	105	114	93.2	101	1	75.0-125			7.98	20
Molybdenum	107	U	87.4	96.4	81.6	90.0	1	75.0-125			9.74	20
Nickel	107	74.6	180	191	98.6	108	1	75.0-125			5.72	20
Selenium	107	1.34	86.7	95.0	79.7	87.5	1	75.0-125			9.13	20
Silver	21.4	U	17.0	18.7	79.4	87.5	1	75.0-125			9.74	20
Thallium	107	U	92.0	100	86.0	93.7	1	75.0-125			8.66	20
Vanadium	107	61.4	147	157	79.8	89.6	1	75.0-125			6.93	20
Zinc	107	54.9	139	152	79.0	90.5	1	75.0-125			8.47	20

Method Blank (MB)

(MB) R3528835-1 05/16/20 19:30

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Antimony	U		0.500	2.00
Arsenic	U		0.460	2.00
Barium	U		0.240	0.500
Beryllium	U		0.0800	0.200
Cadmium	U		0.0810	0.500
Chromium	U		0.250	1.00
Cobalt	U		0.230	1.00
Copper	U		0.506	2.00
Lead	U		0.208	0.500
Molybdenum	U		0.200	0.500
Nickel	U		0.490	2.00
Selenium	U		0.617	2.00
Silver	U		0.228	1.00
Thallium	U		0.354	2.00
Vanadium	U		0.687	2.00
Zinc	U		0.939	5.00

Laboratory Control Sample (LCS)

(LCS) R3528835-2 05/16/20 19:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	100	103	103	80.0-120	
Arsenic	100	104	104	80.0-120	
Barium	100	112	112	80.0-120	
Beryllium	100	108	108	80.0-120	
Cadmium	100	103	103	80.0-120	
Chromium	100	107	107	80.0-120	
Cobalt	100	110	110	80.0-120	
Copper	100	106	106	80.0-120	
Lead	100	106	106	80.0-120	
Molybdenum	100	110	110	80.0-120	
Nickel	100	109	109	80.0-120	
Selenium	100	104	104	80.0-120	
Silver	20.0	20.0	100	80.0-120	
Thallium	100	103	103	80.0-120	
Vanadium	100	108	108	80.0-120	
Zinc	100	105	105	80.0-120	

L1217589-37 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1217589-37 05/16/20 19:36 • (MS) R3528835-5 05/16/20 19:44 • (MSD) R3528835-6 05/16/20 19:46

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	118	0.784	46.9	43.4	39.0	36.0	1	75.0-125	J6	J6	7.86	20
Arsenic	118	7.37	116	121	91.6	96.0	1	75.0-125			4.39	20
Barium	118	196	319	311	104	97.1	1	75.0-125			2.53	20
Beryllium	118	0.538	113	116	95.0	97.9	1	75.0-125			3.02	20
Cadmium	118	0.695	110	114	92.0	95.3	1	75.0-125			3.53	20
Chromium	118	54.4	170	182	97.2	108	1	75.0-125			7.36	20
Cobalt	118	15.9	147	151	111	114	1	75.0-125			2.42	20
Copper	118	49.5	167	157	99.2	90.8	1	75.0-125			6.10	20
Lead	118	10.5	134	138	104	108	1	75.0-125			3.00	20
Molybdenum	118	U	109	112	92.2	94.3	1	75.0-125			2.31	20
Nickel	118	89.6	221	238	111	125	1	75.0-125			7.19	20
Selenium	118	1.14	109	113	91.0	94.6	1	75.0-125			3.83	20
Silver	23.7	U	21.2	22.0	89.6	92.9	1	75.0-125			3.55	20
Thallium	118	U	113	117	95.3	99.1	1	75.0-125			3.89	20
Vanadium	118	59.7	173	174	95.5	97.0	1	75.0-125			0.996	20
Zinc	118	61.1	170	176	92.3	96.7	1	75.0-125			3.02	20

Method Blank (MB)

(MB) R3529429-2 05/16/20 08:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0365	0.0500
Acrylonitrile	U		0.00361	0.0125
Benzene	U		0.000467	0.00100
Bromobenzene	U		0.000900	0.0125
Bromodichloromethane	U		0.000725	0.00250
Bromoform	U		0.00117	0.0250
Bromomethane	U		0.00197	0.0125
n-Butylbenzene	U		0.00525	0.0125
sec-Butylbenzene	U		0.00288	0.0125
tert-Butylbenzene	U		0.00195	0.00500
Carbon tetrachloride	U		0.000898	0.00500
Chlorobenzene	U		0.000210	0.00250
Chlorodibromomethane	U		0.000612	0.00250
Chloroethane	U		0.00170	0.00500
Chloroform	U		0.00103	0.00250
Chloromethane	U		0.00435	0.0125
2-Chlorotoluene	U		0.000865	0.00250
4-Chlorotoluene	U		0.000450	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250
1,2-Dibromoethane	U		0.000648	0.00250
Dibromomethane	U		0.000750	0.00500
1,2-Dichlorobenzene	U		0.000425	0.00500
1,3-Dichlorobenzene	U		0.000600	0.00500
1,4-Dichlorobenzene	0.000800	J	0.000700	0.00500
Dichlorodifluoromethane	U		0.00161	0.00250
1,1-Dichloroethane	U		0.000491	0.00250
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
1,2-Dichloropropane	U		0.00142	0.00500
1,1-Dichloropropene	U		0.000809	0.00250
1,3-Dichloropropane	U		0.000501	0.00500
cis-1,3-Dichloropropene	U		0.000757	0.00250
trans-1,3-Dichloropropene	U		0.00114	0.00500
2,2-Dichloropropane	U		0.00138	0.00250
Di-isopropyl ether	U		0.000410	0.00100
Ethylbenzene	U		0.000737	0.00250
Hexachloro-1,3-butadiene	U		0.00600	0.0250
Isopropylbenzene	U		0.000425	0.00250

Method Blank (MB)

(MB) R3529429-2 05/16/20 08:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00255	0.00500
2-Butanone (MEK)	0.0684	J	0.0635	0.100
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250
Methyl tert-butyl ether	U		0.000350	0.00100
Naphthalene	U		0.00488	0.0125
n-Propylbenzene	U		0.000950	0.00500
Styrene	U		0.000229	0.0125
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250
1,2,3-Trichlorobenzene	U		0.00733	0.0125
1,2,4-Trichlorobenzene	U		0.00440	0.0125
1,1,1-Trichloroethane	U		0.000923	0.00250
1,1,2-Trichloroethane	U		0.000597	0.00250
Trichloroethene	U		0.000584	0.00100
Trichlorofluoromethane	U		0.000827	0.00250
1,2,3-Trichloropropane	U		0.00162	0.0125
1,2,3-Trimethylbenzene	U		0.00158	0.00500
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*103*			*75.0-131*
(S) 4-Bromofluorobenzene	*98.2*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*94.9*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3529429-1 05/16/20 07:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.642	103	10.0-160	
Acrylonitrile	0.625	0.560	89.6	45.0-153	
Benzene	0.125	0.113	90.4	70.0-123	
Bromobenzene	0.125	0.109	87.2	73.0-121	
Bromodichloromethane	0.125	0.115	92.0	73.0-121	

Laboratory Control Sample (LCS)

(LCS) R3529429-1 05/16/20 07:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromoform	0.125	0.122	97.6	64.0-132	
Bromomethane	0.125	0.0985	78.8	56.0-147	
n-Butylbenzene	0.125	0.123	98.4	68.0-135	
sec-Butylbenzene	0.125	0.125	100	74.0-130	
tert-Butylbenzene	0.125	0.105	84.0	75.0-127	
Carbon tetrachloride	0.125	0.118	94.4	66.0-128	
Chlorobenzene	0.125	0.117	93.6	76.0-128	
Chlorodibromomethane	0.125	0.112	89.6	74.0-127	
Chloroethane	0.125	0.0927	74.2	61.0-134	
Chloroform	0.125	0.125	100	72.0-123	
Chloromethane	0.125	0.0947	75.8	51.0-138	
2-Chlorotoluene	0.125	0.135	108	75.0-124	
4-Chlorotoluene	0.125	0.101	80.8	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.128	102	59.0-130	
1,2-Dibromoethane	0.125	0.133	106	74.0-128	
Dibromomethane	0.125	0.129	103	75.0-122	
1,2-Dichlorobenzene	0.125	0.109	87.2	76.0-124	
1,3-Dichlorobenzene	0.125	0.110	88.0	76.0-125	
1,4-Dichlorobenzene	0.125	0.110	88.0	77.0-121	
Dichlorodifluoromethane	0.125	0.0911	72.9	43.0-156	
1,1-Dichloroethane	0.125	0.115	92.0	70.0-127	
1,2-Dichloroethane	0.125	0.0975	78.0	65.0-131	
1,1-Dichloroethene	0.125	0.115	92.0	65.0-131	
cis-1,2-Dichloroethene	0.125	0.128	102	73.0-125	
trans-1,2-Dichloroethene	0.125	0.112	89.6	71.0-125	
1,2-Dichloropropane	0.125	0.107	85.6	74.0-125	
1,1-Dichloropropene	0.125	0.105	84.0	73.0-125	
1,3-Dichloropropane	0.125	0.121	96.8	80.0-125	
cis-1,3-Dichloropropene	0.125	0.117	93.6	76.0-127	
trans-1,3-Dichloropropene	0.125	0.120	96.0	73.0-127	
2,2-Dichloropropane	0.125	0.119	95.2	59.0-135	
Di-isopropyl ether	0.125	0.123	98.4	60.0-136	
Ethylbenzene	0.125	0.116	92.8	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.111	88.8	57.0-150	
Isopropylbenzene	0.125	0.109	87.2	72.0-127	
p-Isopropyltoluene	0.125	0.125	100	72.0-133	
2-Butanone (MEK)	0.625	0.575	92.0	30.0-160	
Methylene Chloride	0.125	0.107	85.6	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.698	112	56.0-143	
Methyl tert-butyl ether	0.125	0.106	84.8	66.0-132	

Laboratory Control Sample (LCS)

(LCS) R3529429-1 05/16/20 07:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Naphthalene	0.125	0.150	120	59.0-130	
n-Propylbenzene	0.125	0.126	101	74.0-126	
Styrene	0.125	0.126	101	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.0976	78.1	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.108	86.4	68.0-128	
Tetrachloroethene	0.125	0.116	92.8	70.0-136	
Toluene	0.125	0.117	93.6	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.106	84.8	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.157	126	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.129	103	62.0-137	
1,1,1-Trichloroethane	0.125	0.134	107	69.0-126	
1,1,2-Trichloroethane	0.125	0.106	84.8	78.0-123	
Trichloroethene	0.125	0.103	82.4	76.0-126	
Trichlorofluoromethane	0.125	0.126	101	61.0-142	
1,2,3-Trichloropropane	0.125	0.128	102	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.116	92.8	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.119	95.2	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.121	96.8	73.0-127	
Vinyl chloride	0.125	0.118	94.4	63.0-134	
Xylenes, Total	0.375	0.327	87.2	72.0-127	
(S) Toluene-d8			*99.1*	*75.0-131*	
(S) 4-Bromofluorobenzene			*102*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*98.3*	*70.0-130*	

Method Blank (MB)

(MB) R3529421-2 05/16/20 08:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0365	0.0500
Acrylonitrile	U		0.00361	0.0125
Benzene	U		0.000467	0.00100
Bromobenzene	U		0.000900	0.0125
Bromodichloromethane	U		0.000725	0.00250
Bromoform	U		0.00117	0.0250
Bromomethane	U		0.00197	0.0125
n-Butylbenzene	U		0.00525	0.0125
sec-Butylbenzene	U		0.00288	0.0125
tert-Butylbenzene	U		0.00195	0.00500
Carbon tetrachloride	U		0.000898	0.00500
Chlorobenzene	U		0.000210	0.00250
Chlorodibromomethane	U		0.000612	0.00250
Chloroethane	U		0.00170	0.00500
Chloroform	U		0.00103	0.00250
Chloromethane	U		0.00435	0.0125
2-Chlorotoluene	U		0.000865	0.00250
4-Chlorotoluene	U		0.000450	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250
1,2-Dibromoethane	U		0.000648	0.00250
Dibromomethane	U		0.000750	0.00500
1,2-Dichlorobenzene	U		0.000425	0.00500
1,3-Dichlorobenzene	U		0.000600	0.00500
1,4-Dichlorobenzene	U		0.000700	0.00500
Dichlorodifluoromethane	U		0.00161	0.00250
1,1-Dichloroethane	U		0.000491	0.00250
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
1,2-Dichloropropane	U		0.00142	0.00500
1,1-Dichloropropene	U		0.000809	0.00250
1,3-Dichloropropane	U		0.000501	0.00500
cis-1,3-Dichloropropene	U		0.000757	0.00250
trans-1,3-Dichloropropene	U		0.00114	0.00500
2,2-Dichloropropane	U		0.00138	0.00250
Di-isopropyl ether	U		0.000410	0.00100
Ethylbenzene	U		0.000737	0.00250
Hexachloro-1,3-butadiene	U		0.00600	0.0250
Isopropylbenzene	U		0.000425	0.00250

Method Blank (MB)

(MB) R3529421-2 05/16/20 08:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00255	0.00500
2-Butanone (MEK)	0.114		0.0635	0.100
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250
Methyl tert-butyl ether	U		0.000350	0.00100
Naphthalene	U		0.00488	0.0125
n-Propylbenzene	U		0.000950	0.00500
Styrene	U		0.000229	0.0125
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250
1,2,3-Trichlorobenzene	U		0.00733	0.0125
1,2,4-Trichlorobenzene	U		0.00440	0.0125
1,1,1-Trichloroethane	U		0.000923	0.00250
1,1,2-Trichloroethane	U		0.000597	0.00250
Trichloroethene	U		0.000584	0.00100
Trichlorofluoromethane	U		0.000827	0.00250
1,2,3-Trichloropropane	U		0.00162	0.0125
1,2,3-Trimethylbenzene	U		0.00158	0.00500
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*119*			*75.0-131*
(S) 4-Bromofluorobenzene	*116*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3529421-1 05/16/20 07:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	1.12	179	10.0-160	J4
Acrylonitrile	0.625	0.686	110	45.0-153	
Benzene	0.125	0.122	97.6	70.0-123	
Bromobenzene	0.125	0.102	81.6	73.0-121	
Bromodichloromethane	0.125	0.127	102	73.0-121	

Laboratory Control Sample (LCS)

(LCS) R3529421-1 05/16/20 07:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromoform	0.125	0.108	86.4	64.0-132	
Bromomethane	0.125	0.117	93.6	56.0-147	
n-Butylbenzene	0.125	0.0961	76.9	68.0-135	
sec-Butylbenzene	0.125	0.104	83.2	74.0-130	
tert-Butylbenzene	0.125	0.102	81.6	75.0-127	
Carbon tetrachloride	0.125	0.137	110	66.0-128	
Chlorobenzene	0.125	0.115	92.0	76.0-128	
Chlorodibromomethane	0.125	0.121	96.8	74.0-127	
Chloroethane	0.125	0.108	86.4	61.0-134	
Chloroform	0.125	0.134	107	72.0-123	
Chloromethane	0.125	0.105	84.0	51.0-138	
2-Chlorotoluene	0.125	0.0980	78.4	75.0-124	
4-Chlorotoluene	0.125	0.0979	78.3	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.138	110	59.0-130	
1,2-Dibromoethane	0.125	0.126	101	74.0-128	
Dibromomethane	0.125	0.140	112	75.0-122	
1,2-Dichlorobenzene	0.125	0.123	98.4	76.0-124	
1,3-Dichlorobenzene	0.125	0.111	88.8	76.0-125	
1,4-Dichlorobenzene	0.125	0.117	93.6	77.0-121	
Dichlorodifluoromethane	0.125	0.152	122	43.0-156	
1,1-Dichloroethane	0.125	0.126	101	70.0-127	
1,2-Dichloroethane	0.125	0.139	111	65.0-131	
1,1-Dichloroethene	0.125	0.121	96.8	65.0-131	
cis-1,2-Dichloroethene	0.125	0.125	100	73.0-125	
trans-1,2-Dichloroethene	0.125	0.120	96.0	71.0-125	
1,2-Dichloropropane	0.125	0.133	106	74.0-125	
1,1-Dichloropropene	0.125	0.127	102	73.0-125	
1,3-Dichloropropane	0.125	0.124	99.2	80.0-125	
cis-1,3-Dichloropropene	0.125	0.138	110	76.0-127	
trans-1,3-Dichloropropene	0.125	0.122	97.6	73.0-127	
2,2-Dichloropropane	0.125	0.130	104	59.0-135	
Di-isopropyl ether	0.125	0.120	96.0	60.0-136	
Ethylbenzene	0.125	0.112	89.6	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.152	122	57.0-150	
Isopropylbenzene	0.125	0.0853	68.2	72.0-127	J4
p-Isopropyltoluene	0.125	0.103	82.4	72.0-133	
2-Butanone (MEK)	0.625	0.741	119	30.0-160	
Methylene Chloride	0.125	0.123	98.4	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.584	93.4	56.0-143	
Methyl tert-butyl ether	0.125	0.121	96.8	66.0-132	

Laboratory Control Sample (LCS)

(LCS) R3529421-1 05/16/20 07:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Naphthalene	0.125	0.129	103	59.0-130	
n-Propylbenzene	0.125	0.0965	77.2	74.0-126	
Styrene	0.125	0.105	84.0	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.118	94.4	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.106	84.8	68.0-128	
Tetrachloroethene	0.125	0.122	97.6	70.0-136	
Toluene	0.125	0.105	84.0	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.148	118	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.137	110	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.143	114	62.0-137	
1,1,1-Trichloroethane	0.125	0.123	98.4	69.0-126	
1,1,2-Trichloroethane	0.125	0.117	93.6	78.0-123	
Trichloroethene	0.125	0.137	110	76.0-126	
Trichlorofluoromethane	0.125	0.121	96.8	61.0-142	
1,2,3-Trichloropropane	0.125	0.119	95.2	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.101	80.8	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.0984	78.7	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.0984	78.7	73.0-127	
Vinyl chloride	0.125	0.128	102	63.0-134	
Xylenes, Total	0.375	0.317	84.5	72.0-127	
(S) Toluene-d8			*99.2*	*75.0-131*	
(S) 4-Bromofluorobenzene			*83.9*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*111*	*70.0-130*	

Method Blank (MB)

(MB) R3529207-2 05/16/20 10:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0365	0.0500
Acrylonitrile	U		0.00361	0.0125
Benzene	U		0.000467	0.00100
Bromobenzene	U		0.000900	0.0125
Bromodichloromethane	U		0.000725	0.00250
Bromoform	U		0.00117	0.0250
Bromomethane	U		0.00197	0.0125
n-Butylbenzene	U		0.00525	0.0125
sec-Butylbenzene	U		0.00288	0.0125
tert-Butylbenzene	U		0.00195	0.00500
Carbon tetrachloride	U		0.000898	0.00500
Chlorobenzene	U		0.000210	0.00250
Chlorodibromomethane	U		0.000612	0.00250
Chloroethane	U		0.00170	0.00500
Chloroform	U		0.00103	0.00250
Chloromethane	U		0.00435	0.0125
2-Chlorotoluene	U		0.000865	0.00250
4-Chlorotoluene	U		0.000450	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250
1,2-Dibromoethane	U		0.000648	0.00250
Dibromomethane	U		0.000750	0.00500
1,2-Dichlorobenzene	U		0.000425	0.00500
1,3-Dichlorobenzene	U		0.000600	0.00500
1,4-Dichlorobenzene	U		0.000700	0.00500
Dichlorodifluoromethane	U		0.00161	0.00250
1,1-Dichloroethane	U		0.000491	0.00250
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
1,2-Dichloropropane	U		0.00142	0.00500
1,1-Dichloropropene	U		0.000809	0.00250
1,3-Dichloropropane	U		0.000501	0.00500
cis-1,3-Dichloropropene	U		0.000757	0.00250
trans-1,3-Dichloropropene	U		0.00114	0.00500
2,2-Dichloropropane	U		0.00138	0.00250
Di-isopropyl ether	U		0.000410	0.00100
Ethylbenzene	U		0.000737	0.00250
Hexachloro-1,3-butadiene	U		0.00600	0.0250
Isopropylbenzene	U		0.000425	0.00250

Method Blank (MB)

(MB) R3529207-2 05/16/20 10:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00255	0.00500
2-Butanone (MEK)	0.0863	J	0.0635	0.100
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250
Methyl tert-butyl ether	U		0.000350	0.00100
Naphthalene	U		0.00488	0.0125
n-Propylbenzene	U		0.000950	0.00500
Styrene	U		0.000229	0.0125
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250
1,2,3-Trichlorobenzene	U		0.00733	0.0125
1,2,4-Trichlorobenzene	U		0.00440	0.0125
1,1,1-Trichloroethane	U		0.000923	0.00250
1,1,2-Trichloroethane	U		0.000597	0.00250
Trichloroethene	U		0.000584	0.00100
Trichlorofluoromethane	U		0.000827	0.00250
1,2,3-Trichloropropane	U		0.00162	0.0125
1,2,3-Trimethylbenzene	U		0.00158	0.00500
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*97.4*			*75.0-131*
(S) 4-Bromofluorobenzene	*95.6*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*114*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3529207-1 05/16/20 09:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.798	128	10.0-160	
Acrylonitrile	0.625	0.848	136	45.0-153	
Benzene	0.125	0.129	103	70.0-123	
Bromobenzene	0.125	0.140	112	73.0-121	
Bromodichloromethane	0.125	0.122	97.6	73.0-121	

Laboratory Control Sample (LCS)

(LCS) R3529207-1 05/16/20 09:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromoform	0.125	0.127	102	64.0-132	
Bromomethane	0.125	0.159	127	56.0-147	
n-Butylbenzene	0.125	0.120	96.0	68.0-135	
sec-Butylbenzene	0.125	0.129	103	74.0-130	
tert-Butylbenzene	0.125	0.117	93.6	75.0-127	
Carbon tetrachloride	0.125	0.146	117	66.0-128	
Chlorobenzene	0.125	0.121	96.8	76.0-128	
Chlorodibromomethane	0.125	0.145	116	74.0-127	
Chloroethane	0.125	0.142	114	61.0-134	
Chloroform	0.125	0.117	93.6	72.0-123	
Chloromethane	0.125	0.144	115	51.0-138	
2-Chlorotoluene	0.125	0.130	104	75.0-124	
4-Chlorotoluene	0.125	0.131	105	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.132	106	59.0-130	
1,2-Dibromoethane	0.125	0.145	116	74.0-128	
Dibromomethane	0.125	0.129	103	75.0-122	
1,2-Dichlorobenzene	0.125	0.146	117	76.0-124	
1,3-Dichlorobenzene	0.125	0.139	111	76.0-125	
1,4-Dichlorobenzene	0.125	0.126	101	77.0-121	
Dichlorodifluoromethane	0.125	0.140	112	43.0-156	
1,1-Dichloroethane	0.125	0.147	118	70.0-127	
1,2-Dichloroethane	0.125	0.124	99.2	65.0-131	
1,1-Dichloroethene	0.125	0.151	121	65.0-131	
cis-1,2-Dichloroethene	0.125	0.113	90.4	73.0-125	
trans-1,2-Dichloroethene	0.125	0.125	100	71.0-125	
1,2-Dichloropropane	0.125	0.146	117	74.0-125	
1,1-Dichloropropene	0.125	0.152	122	73.0-125	
1,3-Dichloropropane	0.125	0.133	106	80.0-125	
cis-1,3-Dichloropropene	0.125	0.138	110	76.0-127	
trans-1,3-Dichloropropene	0.125	0.139	111	73.0-127	
2,2-Dichloropropane	0.125	0.143	114	59.0-135	
Di-isopropyl ether	0.125	0.128	102	60.0-136	
Ethylbenzene	0.125	0.121	96.8	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.141	113	57.0-150	
Isopropylbenzene	0.125	0.124	99.2	72.0-127	
p-Isopropyltoluene	0.125	0.141	113	72.0-133	
2-Butanone (MEK)	0.625	0.804	129	30.0-160	
Methylene Chloride	0.125	0.127	102	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.835	134	56.0-143	
Methyl tert-butyl ether	0.125	0.151	121	66.0-132	

Laboratory Control Sample (LCS)

(LCS) R3529207-1 05/16/20 09:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Naphthalene	0.125	0.138	110	59.0-130	
n-Propylbenzene	0.125	0.144	115	74.0-126	
Styrene	0.125	0.130	104	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.150	120	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.145	116	68.0-128	
Tetrachloroethene	0.125	0.132	106	70.0-136	
Toluene	0.125	0.115	92.0	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.123	98.4	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.125	100	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.129	103	62.0-137	
1,1,1-Trichloroethane	0.125	0.148	118	69.0-126	
1,1,2-Trichloroethane	0.125	0.123	98.4	78.0-123	
Trichloroethene	0.125	0.129	103	76.0-126	
Trichlorofluoromethane	0.125	0.153	122	61.0-142	
1,2,3-Trichloropropane	0.125	0.152	122	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.110	88.0	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.128	102	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.128	102	73.0-127	
Vinyl chloride	0.125	0.181	145	63.0-134	J4
Xylenes, Total	0.375	0.368	98.1	72.0-127	
(S) Toluene-d8			*96.8*	*75.0-131*	
(S) 4-Bromofluorobenzene			*97.9*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*122*	*70.0-130*	

Method Blank (MB)

(MB) R3529309-2 05/18/20 21:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Trichloroethene	U		0.000584	0.00100
(S) Toluene-d8	*97.1*			*75.0-131*
(S) 4-Bromofluorobenzene	*100*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*124*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3529309-1 05/18/20 20:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Trichloroethene	0.125	0.126	101	76.0-126	
(S) Toluene-d8			*96.4*	*75.0-131*	
(S) 4-Bromofluorobenzene			*98.4*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*124*	*70.0-130*	

Method Blank (MB)

(MB) R3529628-3 05/19/20 05:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0365	0.0500
Acrylonitrile	U		0.00361	0.0125
Benzene	U		0.000467	0.00100
Bromobenzene	U		0.000900	0.0125
Bromodichloromethane	U		0.000725	0.00250
Bromoform	U		0.00117	0.0250
Bromomethane	U		0.00197	0.0125
n-Butylbenzene	U		0.00525	0.0125
sec-Butylbenzene	U		0.00288	0.0125
tert-Butylbenzene	U		0.00195	0.00500
Carbon tetrachloride	U		0.000898	0.00500
Chlorobenzene	U		0.000210	0.00250
Chlorodibromomethane	U		0.000612	0.00250
Chloroethane	U		0.00170	0.00500
Chloroform	U		0.00103	0.00250
Chloromethane	U		0.00435	0.0125
2-Chlorotoluene	U		0.000865	0.00250
4-Chlorotoluene	U		0.000450	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250
1,2-Dibromoethane	U		0.000648	0.00250
Dibromomethane	U		0.000750	0.00500
1,2-Dichlorobenzene	U		0.000425	0.00500
1,3-Dichlorobenzene	U		0.000600	0.00500
1,4-Dichlorobenzene	U		0.000700	0.00500
Dichlorodifluoromethane	U		0.00161	0.00250
1,1-Dichloroethane	U		0.000491	0.00250
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
1,2-Dichloropropane	U		0.00142	0.00500
1,1-Dichloropropene	U		0.000809	0.00250
1,3-Dichloropropane	U		0.000501	0.00500
cis-1,3-Dichloropropene	U		0.000757	0.00250
trans-1,3-Dichloropropene	U		0.00114	0.00500
2,2-Dichloropropane	U		0.00138	0.00250
Di-isopropyl ether	U		0.000410	0.00100
Ethylbenzene	U		0.000737	0.00250
Hexachloro-1,3-butadiene	U		0.00600	0.0250
Isopropylbenzene	U		0.000425	0.00250

Method Blank (MB)

(MB) R3529628-3 05/19/20 05:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00255	0.00500
2-Butanone (MEK)	0.0895	J	0.0635	0.100
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250
Methyl tert-butyl ether	U		0.000350	0.00100
Naphthalene	U		0.00488	0.0125
n-Propylbenzene	U		0.000950	0.00500
Styrene	U		0.000229	0.0125
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250
1,2,3-Trichlorobenzene	U		0.00733	0.0125
1,2,4-Trichlorobenzene	U		0.00440	0.0125
1,1,1-Trichloroethane	U		0.000923	0.00250
1,1,2-Trichloroethane	U		0.000597	0.00250
Trichloroethene	U		0.000584	0.00100
Trichlorofluoromethane	U		0.000827	0.00250
1,2,3-Trichloropropane	U		0.00162	0.0125
1,2,3-Trimethylbenzene	U		0.00158	0.00500
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*109*			*75.0-131*
(S) 4-Bromofluorobenzene	*97.1*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3529628-1 05/19/20 04:17 • (LCSD) R3529628-2 05/19/20 04:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	1.09	1.17	174	187	10.0-160	J4	J4	7.08	31
Acrylonitrile	0.625	0.656	0.670	105	107	45.0-153			2.11	22
Benzene	0.125	0.104	0.102	83.2	81.6	70.0-123			1.94	20
Bromobenzene	0.125	0.127	0.119	102	95.2	73.0-121			6.50	20
Bromodichloromethane	0.125	0.111	0.112	88.8	89.6	73.0-121			0.897	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3529628-1 05/19/20 04:17 • (LCSD) R3529628-2 05/19/20 04:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromoform	0.125	0.125	0.127	100	102	64.0-132			1.59	20
Bromomethane	0.125	0.102	0.0986	81.6	78.9	56.0-147			3.39	20
n-Butylbenzene	0.125	0.121	0.121	96.8	96.8	68.0-135			0.000	20
sec-Butylbenzene	0.125	0.120	0.115	96.0	92.0	74.0-130			4.26	20
tert-Butylbenzene	0.125	0.132	0.127	106	102	75.0-127			3.86	20
Carbon tetrachloride	0.125	0.137	0.131	110	105	66.0-128			4.48	20
Chlorobenzene	0.125	0.108	0.107	86.4	85.6	76.0-128			0.930	20
Chlorodibromomethane	0.125	0.137	0.139	110	111	74.0-127			1.45	20
Chloroethane	0.125	0.112	0.109	89.6	87.2	61.0-134			2.71	20
Chloroform	0.125	0.130	0.132	104	106	72.0-123			1.53	20
Chloromethane	0.125	0.138	0.138	110	110	51.0-138			0.000	20
2-Chlorotoluene	0.125	0.0973	0.0970	77.8	77.6	75.0-124			0.309	20
4-Chlorotoluene	0.125	0.111	0.106	88.8	84.8	75.0-124			4.61	20
1,2-Dibromo-3-Chloropropane	0.125	0.107	0.110	85.6	88.0	59.0-130			2.76	20
1,2-Dibromoethane	0.125	0.119	0.116	95.2	92.8	74.0-128			2.55	20
Dibromomethane	0.125	0.114	0.121	91.2	96.8	75.0-122			5.96	20
1,2-Dichlorobenzene	0.125	0.101	0.100	80.8	80.0	76.0-124			0.995	20
1,3-Dichlorobenzene	0.125	0.109	0.107	87.2	85.6	76.0-125			1.85	20
1,4-Dichlorobenzene	0.125	0.0937	0.0918	75.0	73.4	77.0-121	J4	J4	2.05	20
Dichlorodifluoromethane	0.125	0.185	0.179	148	143	43.0-156			3.30	20
1,1-Dichloroethane	0.125	0.103	0.101	82.4	80.8	70.0-127			1.96	20
1,2-Dichloroethane	0.125	0.137	0.136	110	109	65.0-131			0.733	20
1,1-Dichloroethene	0.125	0.117	0.113	93.6	90.4	65.0-131			3.48	20
cis-1,2-Dichloroethene	0.125	0.111	0.108	88.8	86.4	73.0-125			2.74	20
trans-1,2-Dichloroethene	0.125	0.104	0.103	83.2	82.4	71.0-125			0.966	20
1,2-Dichloropropane	0.125	0.135	0.136	108	109	74.0-125			0.738	20
1,1-Dichloropropene	0.125	0.105	0.104	84.0	83.2	73.0-125			0.957	20
1,3-Dichloropropane	0.125	0.124	0.122	99.2	97.6	80.0-125			1.63	20
cis-1,3-Dichloropropene	0.125	0.136	0.134	109	107	76.0-127			1.48	20
trans-1,3-Dichloropropene	0.125	0.114	0.113	91.2	90.4	73.0-127			0.881	20
2,2-Dichloropropane	0.125	0.119	0.119	95.2	95.2	59.0-135			0.000	20
Di-isopropyl ether	0.125	0.119	0.120	95.2	96.0	60.0-136			0.837	20
Ethylbenzene	0.125	0.110	0.109	88.0	87.2	74.0-126			0.913	20
Hexachloro-1,3-butadiene	0.125	0.101	0.107	80.8	85.6	57.0-150			5.77	20
Isopropylbenzene	0.125	0.113	0.114	90.4	91.2	72.0-127			0.881	20
p-Isopropyltoluene	0.125	0.107	0.103	85.6	82.4	72.0-133			3.81	20
2-Butanone (MEK)	0.625	0.840	0.865	134	138	30.0-160			2.93	24
Methylene Chloride	0.125	0.107	0.108	85.6	86.4	68.0-123			0.930	20
4-Methyl-2-pentanone (MIBK)	0.625	0.675	0.683	108	109	56.0-143			1.18	20
Methyl tert-butyl ether	0.125	0.127	0.124	102	99.2	66.0-132			2.39	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3529628-1 05/19/20 04:17 • (LCSD) R3529628-2 05/19/20 04:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Naphthalene	0.125	0.114	0.129	91.2	103	59.0-130			12.3	20
n-Propylbenzene	0.125	0.132	0.126	106	101	74.0-126			4.65	20
Styrene	0.125	0.102	0.101	81.6	80.8	72.0-127			0.985	20
1,1,1,2-Tetrachloroethane	0.125	0.106	0.109	84.8	87.2	74.0-129			2.79	20
1,1,2,2-Tetrachloroethane	0.125	0.118	0.114	94.4	91.2	68.0-128			3.45	20
Tetrachloroethene	0.125	0.122	0.118	97.6	94.4	70.0-136			3.33	20
Toluene	0.125	0.105	0.103	84.0	82.4	75.0-121			1.92	20
1,1,2-Trichlorotrifluoroethane	0.125	0.127	0.126	102	101	61.0-139			0.791	20
1,2,3-Trichlorobenzene	0.125	0.143	0.157	114	126	59.0-139			9.33	20
1,2,4-Trichlorobenzene	0.125	0.114	0.126	91.2	101	62.0-137			10.0	20
1,1,1-Trichloroethane	0.125	0.129	0.125	103	100	69.0-126			3.15	20
1,1,2-Trichloroethane	0.125	0.114	0.116	91.2	92.8	78.0-123			1.74	20
Trichloroethene	0.125	0.109	0.107	87.2	85.6	76.0-126			1.85	20
Trichlorofluoromethane	0.125	0.142	0.145	114	116	61.0-142			2.09	20
1,2,3-Trichloropropane	0.125	0.140	0.132	112	106	67.0-129			5.88	20
1,2,3-Trimethylbenzene	0.125	0.0927	0.0919	74.2	73.5	74.0-124		J4	0.867	20
1,2,4-Trimethylbenzene	0.125	0.104	0.0991	83.2	79.3	70.0-126			4.83	20
1,3,5-Trimethylbenzene	0.125	0.0972	0.0940	77.8	75.2	73.0-127			3.35	20
Vinyl chloride	0.125	0.138	0.123	110	98.4	63.0-134			11.5	20
Xylenes, Total	0.375	0.323	0.298	86.1	79.5	72.0-127			8.05	20
(S) Toluene-d8				*102*	*99.8*	*75.0-131*				
(S) 4-Bromofluorobenzene				*101*	*103*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*117*	*118*	*70.0-130*				

Method Blank (MB)

(MB) R3529339-1 05/18/20 19:59

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C12-C22 Hydrocarbons	U		0.733	4.00
C22-C32 Hydrocarbons	U		1.33	4.00
C32-C40 Hydrocarbons	U		1.33	4.00
(S) o-Terphenyl	*63.8*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3529339-2 05/18/20 20:13

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C22-C32 Hydrocarbons	25.0	16.9	67.6	50.0-150	
C12-C22 Hydrocarbons	25.0	20.5	82.0	50.0-150	
(S) o-Terphenyl			*111*	*18.0-148*	

Method Blank (MB)

(MB) R3529340-1 05/18/20 19:30

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C12-C22 Hydrocarbons	U		0.733	4.00
C22-C32 Hydrocarbons	U		1.33	4.00
C32-C40 Hydrocarbons	U		1.33	4.00
(S) o-Terphenyl	*128*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3529340-2 05/18/20 19:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C22-C32 Hydrocarbons	25.0	19.1	76.4	50.0-150	
C12-C22 Hydrocarbons	25.0	23.6	94.4	50.0-150	
(S) o-Terphenyl			*156*	*18.0-148*	J1

L1217589-36 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1217589-36 05/19/20 14:17 • (MS) R3529671-1 05/19/20 14:31 • (MSD) R3529671-2 05/19/20 14:46

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C22-C32 Hydrocarbons	27.4	5.05	23.8	22.5	68.5	63.6	1	50.0-150			5.80	20
C12-C22 Hydrocarbons	27.4	U	21.9	19.6	80.0	71.4	1	50.0-150			11.3	20
(S) o-Terphenyl					*69.2*	*61.9*		*18.0-148*				

Method Blank (MB)

(MB) R3529192-1 05/18/20 11:50

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C12-C22 Hydrocarbons	U		0.733	4.00
C22-C32 Hydrocarbons	U		1.33	4.00
C32-C40 Hydrocarbons	U		1.33	4.00
(S) o-Terphenyl	*98.8*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3529192-2 05/18/20 12:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C22-C32 Hydrocarbons	25.0	15.3	61.2	50.0-150	
C12-C22 Hydrocarbons	25.0	19.7	78.8	50.0-150	
(S) o-Terphenyl			*85.7*	*18.0-148*	

Method Blank (MB)

(MB) R3529204-1 05/18/20 10:32

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
PCB 1016	U		0.0118	0.0340
PCB 1221	U		0.0118	0.0340
PCB 1232	U		0.0118	0.0340
PCB 1242	U		0.0118	0.0340
PCB 1248	U		0.00738	0.0170
PCB 1254	U		0.00738	0.0170
PCB 1260	U		0.00738	0.0170
(S) Decachlorobiphenyl	*59.0*			*10.0-135*
(S) Tetrachloro-m-xylene	*56.9*			*10.0-139*

Laboratory Control Sample (LCS)

(LCS) R3529204-2 05/18/20 10:46

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
PCB 1260	0.167	0.137	82.0	37.0-145	
PCB 1016	0.167	0.145	86.8	36.0-141	
(S) Decachlorobiphenyl			*87.2*	*10.0-135*	
(S) Tetrachloro-m-xylene			*87.1*	*10.0-139*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
P	RPD between the primary and confirmatory analysis exceeded 40%.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

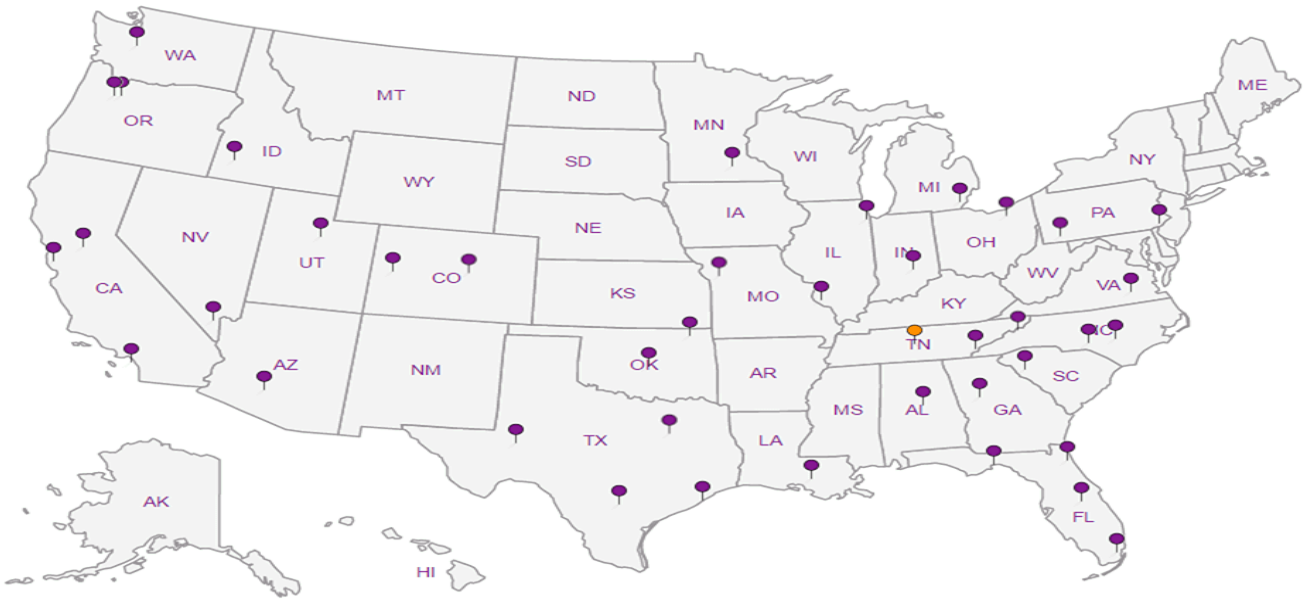
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Geosolve, Inc - Grass Valley, CA

111 Bank Street
Suite 392
Grass Valley, CA 95945

Billing Information:
Rob Cambell
111 Bank Street
Suite 392
Grass Valley, CA 95945

Report to: Rob Cambell

Email To: rcampbell@geosolve-inc.com

Project Description: Parts and Tow

City/State Collected: Morgan Hill CA

Please Circle: PT MT CT ET

Phone: ~~825-863-1198~~ 925-963-1198

Client Project # 2020-06

Lab Project # GEOSOLVEGVCA-PARTTOW

Collected by (print): Rob Campbell

Site/Facility ID # 2020-06

P.O. # 2020-06

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y X

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Pres Chk	Cam17 Metals 6010 2ozClr-NoPres	DROCAERSGT 4ozClr-NoPres	PCBs SV8082 4ozClr-NoPres	V8260 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	dry weight 4ozClr-NoPres	Remarks	Sample # (lab only)
B1-0.5	Grab	SS	0.5	5.7.20	6	4		X	X	X	X	X	X		-01
B1-1		SS	1		4	3		X	X		X				-02
B1-1D		SS	1			1			X						-03
B1-5		SS	5		3	2			X		X				-04
B1-10		SS	10		3	2			X		X				-05
B2-0.5		SS	0.5			4		X	X	X	X	X	X		-06
B2-1		SS	1			3		X	X		X				-07
B2-5		SS	5			2			X		X				-08
B2-10		SS	10			2			X		X				-09
B3-0.5		SS	0.5			4		X	X	X	X	X	X		-10

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L1217589

Table #

Acctnum: GEOSOLVEGVCA

Template: T167055

Prelogin: P770538

PM: 546 - Jared Starkey

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: There are multiple samples for B-1

pH ___ Temp ___

Flow ___ Other ___

Samples returned via: __ UPS __ FedEx __ Courier ___

Tracking # 1458 9154 9135

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by: (Signature)	5.8.20	305	05/08/20 15:30	4
Relinquished by: (Signature)	5-11-20	1147	Received by: (Signature)	Temp: 1.5+0=5 °C Bottles Received: 30
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5-12-20 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Geosolve, Inc - Grass Valley, CA

111 Bank Street
Suite 392
Grass Valley, CA 95945

Billing Information:
Rob Cambell
111 Bank Street
Suite 392
Grass Valley, CA 95945

Report to: Rob Cambell

Email To: rcampbell@geosolve-inc.com

Project Description: Parts and Tow

City/State Collected: Morgan Hill CA

Please Circle: PT MT CT ET

Phone: ~~825-863-1198~~ 925-963-1198

Client Project # 2020-06

Lab Project # GEOSOLVEGVCA-PARTTOW

Collected by (print): Rob Campbell

Site/Facility ID # 2020-06

P.O. # 2020-06

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L42189

Table #

Acctnum: GEOSOLVEGVCA

Template: T167055

Prelogin: P770538

PM: 546 - Jared Starkey

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Cam17 Metals 6010 2ozClr-NoPres	DROCAERSGT 4ozClr-NoPres	PCBs SV8082 4ozClr-NoPres	V8260 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	dry weight 4ozClr-NoPres	Remarks	Sample # (lab only)
B3-1	Grab	SS	1	5-7-20		3	X	X		X				-11
B3-5		SS	5			2		X		X				-12
B3-10		SS	~~10~~			2		X		X				-13
B4-0.5		SS	0.5			4	X	X	X	X	X	X		-14
B4-1		SS	1			3	X	X		X				-15
B4-1D		SS	1			1	X							-16
B4-5		SS	5			2		X		X				-17
B4-10		SS	10			2		X		X				-18
B5-0.5		SS	0.5			4	X	X	X	X	X	X		-19
B5-1		SS	1			3	X	X		X				-20

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ___

Remarks:

pH ___ Temp ___

Flow ___ Other ___

Samples returned via: __ UPS __ FedEx __ Courier ___

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Relinquished by: (Signature)	Date: 5-8-20	Time: 305	Received by: (Signature)	05/08/20 15:30
Relinquished by: (Signature)	Date: 5-11-20	Time: 11:47	Received by: (Signature)	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	

Trip Blank Received: Yes / No HCL / MeoH TBR

Temp: 4.7 °C Bottles Received: 13 0

Date: 5-12-20 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Geosolve, Inc - Grass Valley, CA

111 Bank Street
Suite 392
Grass Valley, CA 95945

Billing Information:
Rob Cambell
111 Bank Street
Suite 392
Grass Valley, CA 95945

Report to: Rob Cambell

Email To: rcampbell@geosolve-inc.com

Project Description: Parts and Tow

City/State Collected: Morgan Hill CA

Please Circle: PT MT CT ET

Phone: ~~825-863-1198~~ 925-963-1198

Client Project # 2020-06

Lab Project # GEOSOLVEGVCA-PARTTOW

Collected by (print):

Site/Facility ID # 2020-06

P.O. # 2020-06

Collected by (signature):

Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed

Quote #

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Cam17 Metals 6010 2ozClr-NoPres	DROCAERSGT 4ozClr-NoPres	PCBs SV8082 4ozClr-NoPres	V8260 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	dry weight 4ozClr-NoPres	Remarks	Sample # (lab only)
B5-5	Grab	SS	5	5-7-20	2	2		X		X				-21
B5-10		SS	10			2		X		X				-22
B6-0.5		SS	0.5			4	X	X	X	X	X	X		-23
B6-1		SS	1			3	X	X		X				-24
B6-5		SS	5			2		X		X				-25
B6-10		SS	10			2		X		X				-26
B7-0.5		SS	0.5			4	X	X	X	X	X	X		-27
B7-1		SS	1			3	X	X		X				-28
B7-5		SS	5			2		X		X				-29
B7-10		SS	10			2		X		X				-30

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L1217589

Table #

Acctnum: GEOSOLVEGVCA

Template: T167055

Prelogin: P770538

PM: 546 - Jared Starkey

PB:

Shipped Via:

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR
	5-8-20	305	05/08/20 15:30	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.4 °C ±0.5 / Bottles Received: 130
	5-11-20	1147		
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5-12-20 / Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Geosolve, Inc - Grass Valley, CA

111 Bank Street
Suite 392
Grass Valley, CA 95945

Billing Information:
Rob Cambell
111 Bank Street
Suite 392
Grass Valley, CA 95945

Report to: Rob Cambell

Email To: rcampbell@geosolve-inc.com

Project Description: Parts and Tow

City/State Collected: Morgan Hill CA

Please Circle: PT MT CT ET

Phone: ~~825-863-1198~~ 925-963-1196

Client Project # 2020-06

Lab Project # GEOSOLVEGVCA-PARTTOW

Collected by (print):

Site/Facility ID # 2020-06

P.O. # 2020-06

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pace Analytical® National Center for Testing & Innovation
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Chain of Custody Page ___ of ___

SDG #

Table #

Acctnum: GEOSOLVEGVCA
Template: T167055
Prelogin: P770538
PM: 546 - Jared Starkey
PB:

Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Pres Chk	Cam17 Metals 6010 2ozClr-NoPres	DROCAERSGT 4ozClr-NoPres	PCBs SV8082 4ozClr-NoPres	V8260 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	dry weight 4ozClr-NoPres	Remarks	Sample # (lab only)
B2-15	Grab	SS	15	5.7.20		1			X		X				-31
B8-0.5		SS	0.5	5.8.20		3		X	X	X	X	X	X	Tube	-32
B8-1		SS	1			2		X	X		X			Tube	-33
B8-5		SS	5			1			X		X			Tube	-34
B8-10		SS	10			1			X		X			Tube	-35
B9-0.5		SS	0.5			4		X	X	X	X	X	X		-36
B9-1		SS	1			2		X	X		X				-37
B9-5		SS	5			2			X		X				-38
B9-10		SS	10			2			X		X				-39
B10-0.5		SS	0.5			3		X	X	X	X	X	X	Tube	-40

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

	Date:	Time:		
Relinquished by: (Signature)	5.8.20	305	Received by: (Signature)	05/8/20 15:30
Relinquished by: (Signature)	5-11-20	1147	Received by: (Signature)	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/12/20 Time: 0845

Trip Blank Received: Yes / No
HCl / MeoH
TBR

Temp: 4 °C (N/A) Bottles Received: 130

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Geosolve, Inc - Grass Valley, CA

111 Bank Street
Suite 392
Grass Valley, CA 95945

Billing Information:
Rob Cambell
111 Bank Street
Suite 392
Grass Valley, CA 95945

Report to: Rob Cambell

Email To: rcampbell@geosolve-inc.com

Project Description: Parts and Tow

City/State Collected: Morgan Hill CA

Please Circle: PT MT CT ET

Phone: ~~825-863-1198~~ 925-963-1198

Client Project # 2020-06

Lab Project # GEOSOLVEGVCA-PARTTOW

Collected by (print): Rob Campbell

Site/Facility ID # 2020-06

P.O. # 2020-06

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Cam17 Metals 6010 2ozClr-NoPres	DROCAERSGT 4ozClr-NoPres	PCBs SV8082 4ozClr-NoPres	V8260 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	dry weight 4ozClr-NoPres	Remarks	Sample # (lab only)
B10-1	Grab	SS	1	5.8.20		2	X	X		X			Tube	-41 ~~-31~~
B10-5		SS	5			1		X		X			Tube	-42 ~~-32~~
B10-10		SS	10			1		X		X			Tube	-43 ~~-33~~
B11-0.5		SS	0.5			4	X	X	X	X	X	X		-44 ~~-34~~
B11-1		SS	1			3	X	X		X				-45 ~~-35~~
B11-5		SS	5			2		X		X				-46 ~~-36~~
B11-10		SS	10			2		X		X				-47 ~~-37~~
B12-0.5		SS	0.5			3	X	X	X	X	X	X		-48 ~~-38~~
B12-1		SS	1			2	X	X		X			Tube	-49 ~~-39~~
B12-5		SS	5			1		X		X			Tube	-50 ~~-40~~

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Relinquished by : (Signature) — Date: 5.8.20 — Time: 305

Received by: (Signature) — 05/08/20 15:30

Trip Blank Received: Yes / No — HCL / MeoH — TBR

Relinquished by : (Signature) — Date: 5-11-20 — Time: 1147

Received by: (Signature)

Temp: 4.7 °C — Bottles Received: 130

If preservation required by Login: Date/Time

Relinquished by : (Signature) — Date: — Time:

Received for lab by: (Signature) — Date: 5-12-20 — Time: 0845

Hold:

Condition: NCF / OK

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L1217589

Table #

Acctnum: GEOSOLVEGVCA

Template: T167055

Prelogin: P770538

PM: 546 - Jared Starkey

PB:

Shipped Via:

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Geosolve, Inc - Grass Valley, CA

111 Bank Street
Suite 392
Grass Valley, CA 95945

Report to: **Rob Cambell**

Billing Information:
Rob Cambell
111 Bank Street
Suite 392
Grass Valley, CA 95945

Email To: **rcampbell@geosolve-inc.com**

Project Description: **Parts and Tow**

City/State Collected:

Please Circle: PT MT CT ET

Phone: ~~825-863-1198~~ 925-963-1198

Client Project # 2020-06

Lab Project # **GEOSOLVEGVCA-PARTTOW**

Collected by (print): Rob Campbell

Site/Facility ID # 2020-06

P.O. # 2020-06

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed

Quote #

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Pres Chk	Cam17 Metals 6010 2ozClr-NoPres	DROCAERSGT 4ozClr-NoPres	PCBs SV8082 4ozClr-NoPres	V8260 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	dry weight 4ozClr-NoPres			Remarks	Sample # (lab only)
B12-10	Grab	SS	10	5.8.20		1			X		X					Tube	-51-41
B12-0.5 D		SS	0.5			1				X							-52-41
		SS															
		SS															
		SS															
		SS															
		SS															
		SS															
		SS															
		SS															
		SS															

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L1217884

Table #

Acctnum: **GEOSOLVEGVCA**

Template: **T167055**

Prelogin: **P770538**

PM: **546 - Jared Starkey**

PB:

Shipped Via:

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	5.6.2	305	05/06/20 15:30	4
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.7 °C Bottles Received:
	5-11-20	1447		.5±0=.5 140
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
				5-12-20 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

U21789

CA Regulated Soil Notification

USDA / APHIS regulates material with organic matter, including soil, from specific counties that have invasive species, pests, or plant diseases present in the county. In order to process your project, we need to determine if special handling applies to your project.

Any soils received without this completed form cannot be received or processed until the site address is confirmed.

Receipt of Soils from California:

Are samples soil or other regulated material?

☒ Yes ☐ No If no, matrix description: MAS 050720

County

☐ Alameda ☐ Contra Costa ☐ Humboldt ☐ Lake ☐ Los Angeles* ☐ Marin
☐ Mendocino ☐ Monterey ☐ Napa ☐ Orange* ☐ Riverside* ☐ San Bernardino**
☐ San Francisco ☐ San Mateo ☑ Santa Clara ☐ Santa Cruz ☐ Solano
☐ Sonoma ☐ Trinity

☐ Other (specify): _____

(If soils are from one of the 18 counties specified above, the site address is required.)

Site Address: 18960 Monterey Rd, Morgan Hill CA

* Fire Ant and ** Fruit Fly quarantines may be partial county quarantines. The site address must be checked against APHIS interactive maps to determine if the site is within the quarantine area.

To be completed by Pace National:

Client: GeoSolve

Lab ID (if applicable): _____

Are Samples Regulated? ☐ No ☒ Yes

Regulated for? ☒ Phytophthora Ramorum ☐ Fire Ants ☐ Fruit Flies*

Amount of soil received: ~ 18,000 grams

Received on: 5-8-2020

Will any analysis be done at another lab? ☒ Yes ☐ No

If yes, complete the following for each lab that will receive the regulated samples:

Receiving Lab	Amount shipped	Receiving lab notified soils are regulated? Shipment sent with receiving lab's Compliance Agreement?
Pace TN	~ 18,000 g	☒ Yes DMC BAS 5-11-20 (initial / date)
	~ g	☐ Yes _____ (initial / date)
	~ g	☐ Yes _____ (initial / date)
	~ g	☐ Yes _____ (initial / date)

* Soils cannot be transferred to another destination without a PPQ 530 form. Contact Jordan Krug at Jordan.d.krug@aphis.usda.gov.

Initial / date after a copy of form has been sent to Anthony Jackson, USDA APHIS PPQ DMC 5-11-2020

CAUTION: This email originated from outside Pace Analytical. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Jared -

The color variations in the samples were noted during my drilling and logging the borings. Maybe moisture content. Anyways please proceed.

Sincerely,

Rob

Robert D. Campbell, MS, PG, CEG
Principal Engineering Geologist
GeoSolve, Inc.
111 Bank Street, Suite 392
Grass Valley, California 95945

1807 Santa Rita Road, Suite H165
Pleasanton, California 94566
(925) 963-1198
www.geosolve-inc.com

-------- Original message --------
From: "Jared N. Starkey" <JStarkey@pacenational.com>
Date: 5/14/20 6:50 AM (GMT-08:00)
To: Rob Campbell <rcampbell@geosolve-inc.com>
Cc: Gabe Stivala <gstivala@pacenational.com>
Subject: RE: Parts and Tow Samples

Rob,

I apologize, but we need a bit more clarification on what to run due to the inconsistencies of the soil at certain sample IDs.

For example- Please see attached pictures of B3-0.5 and B7-0.5. The containers we received have visibly different sediment for the same sample ID. These were received labeled as “B3-0.5” and “B7-0.5” respectively. Though they do not appear to be from the same sampling point.

This is the case for the following sample IDs we received-

VP1-5

VP6-5

B3-0.5

B7-0.5

B9-0.5

B11-0.5

Jared Starkey

Project Manager

12065 Lebanon Road | Mt. Juliet, TN 37122

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

May 19, 2020

Geosolve, Inc - Grass Valley, CA

Sample Delivery Group:	L1218010
Samples Received:	05/13/2020
Project Number:	2020-06
Description:	Parts and Tow
Site:	2020-06
Report To:	Rob Cambell 111 Bank Street Suite 392 Grass Valley, CA 95945

Entire Report Reviewed By:

Jared Starkey
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 4

Sr: Sample Results 5

VP1-5 L1218010-01 5

VP2-5 L1218010-02 7

VP3-5 L1218010-03 9

VP4-5 L1218010-04 11

VP5-5 L1218010-05 13

VP6-5 L1218010-06 15

Qc: Quality Control Summary 17

Volatile Organic Compounds (MS) by Method TO-15 17

Gl: Glossary of Terms 23

Al: Accreditations & Locations 24

Sc: Sample Chain of Custody 25

VP1-5 L1218010-01 Air

Collected by	Collected date/time	Received date/time
	05/08/20 09:56	05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1475832	1	05/14/20 11:36	05/14/20 11:36	CAW	Mt. Juliet, TN

VP2-5 L1218010-02 Air

Collected by	Collected date/time	Received date/time
	05/08/20 10:10	05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1475832	1	05/14/20 12:50	05/14/20 12:50	CAW	Mt. Juliet, TN

VP3-5 L1218010-03 Air

Collected by	Collected date/time	Received date/time
	05/08/20 10:20	05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1475832	1	05/14/20 13:43	05/14/20 13:43	CAW	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1476596	10	05/15/20 13:57	05/15/20 13:57	CAW	Mt. Juliet, TN

VP4-5 L1218010-04 Air

Collected by	Collected date/time	Received date/time
	05/08/20 10:40	05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1475832	1	05/14/20 14:57	05/14/20 14:57	MBF	Mt. Juliet, TN

VP5-5 L1218010-05 Air

Collected by	Collected date/time	Received date/time
	05/08/20 11:10	05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1475832	1	05/14/20 15:42	05/14/20 15:42	MBF	Mt. Juliet, TN

VP6-5 L1218010-06 Air

Collected by	Collected date/time	Received date/time
	05/08/20 11:30	05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1475832	1	05/14/20 16:26	05/14/20 16:26	MBF	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1476596	1	05/15/20 14:33	05/15/20 14:33	CAW	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Jared Starkey
Project Manager

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	14.6	34.7		1	WG1475832
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1475832
Benzene	71-43-2	78.10	0.200	0.639	0.826	2.64		1	WG1475832
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1475832
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1475832
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1475832
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1475832
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1475832
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1475832
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1475832
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1475832
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1475832
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1475832
Chloromethane	74-87-3	50.50	0.200	0.413	0.917	1.89		1	WG1475832
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1475832
Cyclohexane	110-82-7	84.20	0.200	0.689	20.4	70.3		1	WG1475832
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1475832
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1475832
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1475832
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	3.14	18.9		1	WG1475832
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1475832
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1475832
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1475832
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1475832
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1475832
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1475832
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1475832
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1475832
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1475832
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1475832
Ethanol	64-17-5	46.10	0.630	1.19	63.6	120		1	WG1475832
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1475832
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1475832
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.297	1.67		1	WG1475832
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.569	2.81		1	WG1475832
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1475832
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1475832
Heptane	142-82-5	100	0.200	0.818	2.03	8.30		1	WG1475832
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1475832
n-Hexane	110-54-3	86.20	0.630	2.22	9.41	33.2		1	WG1475832
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1475832
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.257	0.892		1	WG1475832
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1475832
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	2.19	6.46		1	WG1475832
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1475832
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1475832
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1475832
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1475832
2-Propanol	67-63-0	60.10	1.25	3.07	2.23	5.48		1	WG1475832
Propene	115-07-1	42.10	0.400	0.689	2.82	4.86		1	WG1475832
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1475832
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1475832
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1475832
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1475832
Toluene	108-88-3	92.10	0.200	0.753	1.06	3.99		1	WG1475832
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1475832

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1475832
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1475832
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1475832
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.275	1.35		1	WG1475832
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1475832
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	1.94	9.06		1	WG1475832
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1475832
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1475832
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1475832
m&p-Xylene	1330-20-7	106	0.400	1.73	0.545	2.36		1	WG1475832
o-Xylene	95-47-6	106	0.200	0.867	0.252	1.09		1	WG1475832
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*106*				WG1475832

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	6.11	14.5		1	WG1475832
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1475832
Benzene	71-43-2	78.10	0.200	0.639	28.4	90.7		1	WG1475832
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1475832
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1475832
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1475832
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1475832
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1475832
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1475832
Carbon tetrachloride	56-23-5	154	0.200	1.26	0.331	2.08		1	WG1475832
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1475832
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1475832
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1475832
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1475832
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1475832
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1475832
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1475832
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1475832
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1475832
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	5.23	31.4		1	WG1475832
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1475832
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1475832
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1475832
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1475832
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1475832
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1475832
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1475832
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1475832
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1475832
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.247	0.890		1	WG1475832
Ethanol	64-17-5	46.10	0.630	1.19	23.7	44.7		1	WG1475832
Ethylbenzene	100-41-4	106	0.200	0.867	50.3	218		1	WG1475832
4-Ethyltoluene	622-96-8	120	0.200	0.982	11.3	55.5		1	WG1475832
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.490	2.75		1	WG1475832
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.784	3.88		1	WG1475832
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	0.231	1.77		1	WG1475832
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1475832
Heptane	142-82-5	100	0.200	0.818	5.02	20.5		1	WG1475832
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1475832
n-Hexane	110-54-3	86.20	0.630	2.22	11.3	39.8		1	WG1475832
Isopropylbenzene	98-82-8	120.20	0.200	0.983	2.49	12.2		1	WG1475832
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1475832
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1475832
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	1.82	5.37		1	WG1475832
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1475832
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1475832
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1475832
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1475832
2-Propanol	67-63-0	60.10	1.25	3.07	2.55	6.27		1	WG1475832
Propene	115-07-1	42.10	0.400	0.689	3.63	6.25		1	WG1475832
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1475832
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1475832
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.964	6.54		1	WG1475832
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1475832
Toluene	108-88-3	92.10	0.200	0.753	70.2	264		1	WG1475832
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1475832

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1475832
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1475832
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1475832
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	14.8	72.6		1	WG1475832
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	5.52	27.1		1	WG1475832
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	10.7	50.0		1	WG1475832
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1475832
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1475832
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1475832
m&p-Xylene	1330-20-7	106	0.400	1.73	70.5	306		1	WG1475832
o-Xylene	95-47-6	106	0.200	0.867	12.0	52.0		1	WG1475832
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*106*				WG1475832

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	9.61	22.8		1	WG1475832
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1475832
Benzene	71-43-2	78.10	0.200	0.639	6.34	20.3		1	WG1475832
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1475832
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1475832
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1475832
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1475832
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1475832
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.670	2.09		1	WG1475832
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1475832
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1475832
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1475832
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1475832
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1475832
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1475832
Cyclohexane	110-82-7	84.20	0.200	0.689	11.8	40.6		1	WG1475832
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1475832
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1475832
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1475832
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	16.1	96.8		1	WG1475832
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1475832
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1475832
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1475832
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1475832
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1475832
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1475832
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1475832
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1475832
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1475832
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1475832
Ethanol	64-17-5	46.10	6.30	11.9	94.7	179		10	WG1476596
Ethylbenzene	100-41-4	106	0.200	0.867	89.3	387		1	WG1475832
4-Ethyltoluene	622-96-8	120	2.00	9.82	215	1060		10	WG1476596
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.336	1.89		1	WG1475832
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.591	2.92		1	WG1475832
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1475832
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1475832
Heptane	142-82-5	100	0.200	0.818	11.4	46.6		1	WG1475832
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1475832
n-Hexane	110-54-3	86.20	0.630	2.22	7.10	25.0		1	WG1475832
Isopropylbenzene	98-82-8	120.20	0.200	0.983	12.2	60.0		1	WG1475832
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.527	1.83		1	WG1475832
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1475832
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	2.65	7.81		1	WG1475832
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1475832
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1475832
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1475832
Naphthalene	91-20-3	128	0.630	3.30	5.70	29.8		1	WG1475832
2-Propanol	67-63-0	60.10	1.25	3.07	8.94	22.0		1	WG1475832
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1475832
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1475832
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1475832
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.257	1.74	B	1	WG1475832
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1475832
Toluene	108-88-3	92.10	0.200	0.753	98.6	371		1	WG1475832
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1475832

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1475832
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1475832
Trichloroethylene	79-01-6	131	0.200	1.07	1.89	10.1		1	WG1475832
1,2,4-Trimethylbenzene	95-63-6	120	2.00	9.82	193	947		10	WG1476596
1,3,5-Trimethylbenzene	108-67-8	120	2.00	9.82	119	584		10	WG1476596
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	29.1	136		1	WG1475832
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1475832
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1475832
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1475832
m&p-Xylene	1330-20-7	106	4.00	17.3	326	1410		10	WG1476596
o-Xylene	95-47-6	106	2.00	8.67	188	815		10	WG1476596
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*121*				WG1475832
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*92.1*				WG1476596

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	11.5	27.3		1	WG1475832
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1475832
Benzene	71-43-2	78.10	0.200	0.639	9.65	30.8		1	WG1475832
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1475832
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1475832
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1475832
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1475832
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1475832
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.591	1.84		1	WG1475832
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1475832
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1475832
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1475832
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1475832
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1475832
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1475832
Cyclohexane	110-82-7	84.20	0.200	0.689	24.5	84.4		1	WG1475832
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1475832
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1475832
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1475832
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	20.5	123		1	WG1475832
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1475832
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1475832
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1475832
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1475832
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1475832
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1475832
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1475832
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1475832
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1475832
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1475832
Ethanol	64-17-5	46.10	0.630	1.19	50.0	94.3		1	WG1475832
Ethylbenzene	100-41-4	106	0.200	0.867	9.99	43.3		1	WG1475832
4-Ethyltoluene	622-96-8	120	0.200	0.982	1.84	9.03		1	WG1475832
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.302	1.70		1	WG1475832
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	ND	ND		1	WG1475832
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1475832
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1475832
Heptane	142-82-5	100	0.200	0.818	0.640	2.62		1	WG1475832
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1475832
n-Hexane	110-54-3	86.20	0.630	2.22	1.76	6.20		1	WG1475832
Isopropylbenzene	98-82-8	120.20	0.200	0.983	0.565	2.78		1	WG1475832
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.268	0.931		1	WG1475832
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1475832
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	1.80	5.31		1	WG1475832
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1475832
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1475832
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1475832
Naphthalene	91-20-3	128	0.630	3.30	0.807	4.22		1	WG1475832
2-Propanol	67-63-0	60.10	1.25	3.07	2.65	6.51		1	WG1475832
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1475832
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1475832
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1475832
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1475832
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1475832
Toluene	108-88-3	92.10	0.200	0.753	6.91	26.0		1	WG1475832
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1475832

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1475832
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1475832
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1475832
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	2.93	14.4		1	WG1475832
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	1.43	7.02		1	WG1475832
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	1.28	5.98		1	WG1475832
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1475832
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1475832
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1475832
m&p-Xylene	1330-20-7	106	0.400	1.73	4.78	20.7		1	WG1475832
o-Xylene	95-47-6	106	0.200	0.867	1.39	6.03		1	WG1475832
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*98.7*				WG1475832

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	18.9	44.9		1	WG1475832
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1475832
Benzene	71-43-2	78.10	0.200	0.639	5.60	17.9		1	WG1475832
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1475832
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1475832
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1475832
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1475832
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1475832
Carbon disulfide	75-15-0	76.10	0.200	0.622	1.12	3.49		1	WG1475832
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1475832
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1475832
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1475832
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1475832
Chloromethane	74-87-3	50.50	0.200	0.413	1.57	3.24		1	WG1475832
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1475832
Cyclohexane	110-82-7	84.20	0.200	0.689	9.63	33.2		1	WG1475832
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1475832
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1475832
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1475832
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	10.6	63.7		1	WG1475832
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1475832
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1475832
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1475832
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1475832
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1475832
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1475832
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1475832
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1475832
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1475832
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1475832
Ethanol	64-17-5	46.10	0.630	1.19	45.6	86.0		1	WG1475832
Ethylbenzene	100-41-4	106	0.200	0.867	2.21	9.58		1	WG1475832
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.374	1.84		1	WG1475832
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.290	1.63		1	WG1475832
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.594	2.94		1	WG1475832
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1475832
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1475832
Heptane	142-82-5	100	0.200	0.818	3.33	13.6		1	WG1475832
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1475832
n-Hexane	110-54-3	86.20	0.630	2.22	8.24	29.1		1	WG1475832
Isopropylbenzene	98-82-8	120.20	0.200	0.983	0.670	3.29		1	WG1475832
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.577	2.00		1	WG1475832
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1475832
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	6.06	17.9		1	WG1475832
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1475832
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1475832
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1475832
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1475832
2-Propanol	67-63-0	60.10	1.25	3.07	4.68	11.5		1	WG1475832
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1475832
Styrene	100-42-5	104	0.200	0.851	0.858	3.65		1	WG1475832
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1475832
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1475832
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1475832
Toluene	108-88-3	92.10	0.200	0.753	8.73	32.9		1	WG1475832
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1475832

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1475832
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1475832
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1475832
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.477	2.34		1	WG1475832
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1475832
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	0.479	2.24		1	WG1475832
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1475832
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1475832
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1475832
m&p-Xylene	1330-20-7	106	0.400	1.73	1.44	6.24		1	WG1475832
o-Xylene	95-47-6	106	0.200	0.867	0.535	2.32		1	WG1475832
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*105*				WG1475832

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	18.2	43.2		1	WG1476596
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1476596
Benzene	71-43-2	78.10	0.200	0.639	1.27	4.06		1	WG1475832
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1475832
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1475832
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1475832
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1476596
1,3-Butadiene	106-99-0	54.10	2.00	4.43	4.21	9.32		1	WG1476596
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.415	1.29		1	WG1476596
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1476596
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1475832
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1476596
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1476596
Chloromethane	74-87-3	50.50	0.200	0.413	0.833	1.72		1	WG1476596
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1475832
Cyclohexane	110-82-7	84.20	0.200	0.689	2.18	7.51		1	WG1476596
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1475832
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1475832
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1475832
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	6.82	41.0		1	WG1475832
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1475832
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1475832
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1476596
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1476596
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1476596
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1476596
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1475832
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1475832
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1475832
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1475832
Ethanol	64-17-5	46.10	0.630	1.19	83.2	157		1	WG1476596
Ethylbenzene	100-41-4	106	0.200	0.867	0.888	3.85		1	WG1475832
4-Ethyltoluene	622-96-8	120	0.200	0.982	3.77	18.5		1	WG1475832
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.448	2.52		1	WG1476596
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.586	2.90		1	WG1476596
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1476596
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1476596
Heptane	142-82-5	100	0.200	0.818	0.801	3.28		1	WG1475832
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1475832
n-Hexane	110-54-3	86.20	0.630	2.22	2.01	7.09		1	WG1476596
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1475832
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.550	1.91		1	WG1476596
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1475832
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	3.67	10.8		1	WG1476596
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1475832
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1475832
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1476596
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1475832
2-Propanol	67-63-0	60.10	1.25	3.07	4.10	10.1		1	WG1476596
Propene	115-07-1	42.10	0.400	0.689	44.7	77.0		1	WG1476596
Styrene	100-42-5	104	0.200	0.851	0.681	2.90		1	WG1475832
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1475832
Tetrachloroethylene	127-18-4	166	0.200	1.36	1.10	7.47		1	WG1475832
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1476596
Toluene	108-88-3	92.10	0.200	0.753	5.64	21.2		1	WG1475832
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1475832

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1476596
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1475832
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1475832
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	4.46	21.9		1	WG1475832
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	2.52	12.4		1	WG1475832
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	0.497	2.32		1	WG1476596
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1476596
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1476596
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1476596
m&p-Xylene	1330-20-7	106	0.400	1.73	4.33	18.8		1	WG1475832
o-Xylene	95-47-6	106	0.200	0.867	2.43	10.5		1	WG1475832
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*97.2*				WG1475832
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*96.6*				WG1476596

Method Blank (MB)

(MB) R3527995-2 05/14/20 07:58

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.584	1.25
Allyl Chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	0.0807	J	0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
2-Chlorotoluene	U		0.0828	0.200
Cyclohexane	U		0.0753	0.200
Dibromochloromethane	U		0.0727	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	0.0728	J	0.0557	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
1,2-Dichloropropane	U		0.0760	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
1,4-Dioxane	U		0.0833	0.200
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorodifluoromethane	U		0.137	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
Heptane	U		0.104	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
n-Hexane	U		0.206	0.630
Isopropylbenzene	U		0.0777	0.200

Method Blank (MB)

(MB) R3527995-2 05/14/20 07:58

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Methylene Chloride	U		0.0979	0.200
Methyl Butyl Ketone	U		0.133	1.25
2-Butanone (MEK)	U		0.0814	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25
Methyl Methacrylate	U		0.0876	0.200
MTBE	U		0.0647	0.200
Naphthalene	U		0.350	0.630
2-Propanol	U		0.264	1.25
Propene	U		0.0932	0.400
Styrene	U		0.0788	0.200
1,1,2,2-Tetrachloroethane	U		0.0743	0.200
Tetrachloroethylene	0.0902	J	0.0814	0.200
Tetrahydrofuran	U		0.0734	0.200
Toluene	U		0.0870	0.200
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0736	0.200
1,1,2-Trichloroethane	U		0.0775	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl acetate	U		0.116	0.200
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
Ethanol	0.302	J	0.265	0.630
(S) 1,4-Bromofluorobenzene	*101*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3527995-1 05/14/20 07:16 • (LCSD) R3527995-3 05/14/20 08:55

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	4.26	4.13	114	110	55.0-148			3.10	25
Propene	3.75	3.80	3.89	101	104	64.0-144			2.34	25
Dichlorodifluoromethane	3.75	4.04	4.02	108	107	64.0-139			0.496	25
1,2-Dichlorotetrafluoroethane	3.75	4.15	4.18	111	111	70.0-130			0.720	25
Chloromethane	3.75	3.96	4.04	106	108	70.0-130			2.00	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3527995-1 05/14/20 07:16 • (LCSD) R3527995-3 05/14/20 08:55

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Vinyl chloride	3.75	4.13	4.11	110	110	70.0-130			0.485	25
1,3-Butadiene	3.75	3.98	4.07	106	109	70.0-130			2.24	25
Bromomethane	3.75	3.97	4.01	106	107	70.0-130			1.00	25
Chloroethane	3.75	3.93	4.03	105	107	70.0-130			2.51	25
Trichlorofluoromethane	3.75	4.14	4.08	110	109	70.0-130			1.46	25
1,1,2-Trichlorotrifluoroethane	3.75	4.09	4.12	109	110	70.0-130			0.731	25
1,1-Dichloroethene	3.75	4.03	4.04	107	108	70.0-130			0.248	25
1,1-Dichloroethane	3.75	4.10	3.99	109	106	70.0-130			2.72	25
Acetone	3.75	4.23	4.39	113	117	70.0-130			3.71	25
2-Propanol	3.75	3.96	4.01	106	107	70.0-139			1.25	25
Carbon disulfide	3.75	3.86	3.84	103	102	70.0-130			0.519	25
Methylene Chloride	3.75	3.86	3.91	103	104	70.0-130			1.29	25
MTBE	3.75	4.02	4.06	107	108	70.0-130			0.990	25
trans-1,2-Dichloroethene	3.75	4.01	4.03	107	107	70.0-130			0.498	25
n-Hexane	3.75	4.01	4.06	107	108	70.0-130			1.24	25
Vinyl acetate	3.75	4.00	3.92	107	105	70.0-130			2.02	25
Methyl Ethyl Ketone	3.75	4.22	4.21	113	112	70.0-130			0.237	25
cis-1,2-Dichloroethene	3.75	3.73	3.77	99.5	101	70.0-130			1.07	25
Chloroform	3.75	4.03	4.08	107	109	70.0-130			1.23	25
Cyclohexane	3.75	4.06	4.15	108	111	70.0-130			2.19	25
1,1,1-Trichloroethane	3.75	4.09	4.16	109	111	70.0-130			1.70	25
Carbon tetrachloride	3.75	4.09	4.10	109	109	70.0-130			0.244	25
Benzene	3.75	4.03	4.08	107	109	70.0-130			1.23	25
1,2-Dichloroethane	3.75	4.08	4.18	109	111	70.0-130			2.42	25
Heptane	3.75	3.29	3.35	87.7	89.3	70.0-130			1.81	25
Trichloroethylene	3.75	4.02	4.10	107	109	70.0-130			1.97	25
1,2-Dichloropropane	3.75	4.03	4.07	107	109	70.0-130			0.988	25
1,4-Dioxane	3.75	4.01	3.97	107	106	70.0-140			1.00	25
Bromodichloromethane	3.75	4.08	4.10	109	109	70.0-130			0.489	25
cis-1,3-Dichloropropene	3.75	4.07	4.06	109	108	70.0-130			0.246	25
4-Methyl-2-pentanone (MIBK)	3.75	4.12	4.14	110	110	70.0-139			0.484	25
Toluene	3.75	4.07	4.08	109	109	70.0-130			0.245	25
trans-1,3-Dichloropropene	3.75	3.99	4.08	106	109	70.0-130			2.23	25
1,1,2-Trichloroethane	3.75	4.04	4.05	108	108	70.0-130			0.247	25
Tetrachloroethylene	3.75	3.99	4.02	106	107	70.0-130			0.749	25
Methyl Butyl Ketone	3.75	4.12	4.19	110	112	70.0-149			1.68	25
Dibromochloromethane	3.75	4.21	4.28	112	114	70.0-130			1.65	25
1,2-Dibromoethane	3.75	4.07	4.09	109	109	70.0-130			0.490	25
Chlorobenzene	3.75	4.15	4.15	111	111	70.0-130			0.000	25
Ethylbenzene	3.75	4.16	4.20	111	112	70.0-130			0.957	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3527995-1 05/14/20 07:16 • (LCSD) R3527995-3 05/14/20 08:55

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
m&p-Xylene	7.50	8.39	8.47	112	113	70.0-130			0.949	25
o-Xylene	3.75	4.12	4.12	110	110	70.0-130			0.000	25
Styrene	3.75	4.22	4.24	113	113	70.0-130			0.473	25
Bromoform	3.75	4.19	4.18	112	111	70.0-130			0.239	25
1,1,2,2-Tetrachloroethane	3.75	4.23	4.23	113	113	70.0-130			0.000	25
4-Ethyltoluene	3.75	4.32	4.30	115	115	70.0-130			0.464	25
1,3,5-Trimethylbenzene	3.75	4.40	4.42	117	118	70.0-130			0.454	25
1,2,4-Trimethylbenzene	3.75	4.28	4.31	114	115	70.0-130			0.698	25
1,3-Dichlorobenzene	3.75	4.38	4.35	117	116	70.0-130			0.687	25
1,4-Dichlorobenzene	3.75	4.50	4.44	120	118	70.0-130			1.34	25
Benzyl Chloride	3.75	4.27	4.27	114	114	70.0-152			0.000	25
1,2-Dichlorobenzene	3.75	4.37	4.40	117	117	70.0-130			0.684	25
1,2,4-Trichlorobenzene	3.75	4.27	4.19	114	112	70.0-160			1.89	25
Hexachloro-1,3-butadiene	3.75	4.37	4.42	117	118	70.0-151			1.14	25
Naphthalene	3.75	4.20	4.23	112	113	70.0-159			0.712	25
Allyl Chloride	3.75	4.02	4.05	107	108	70.0-130			0.743	25
2-Chlorotoluene	3.75	4.37	4.35	117	116	70.0-130			0.459	25
Methyl Methacrylate	3.75	3.79	3.79	101	101	70.0-130			0.000	25
Tetrahydrofuran	3.75	4.05	4.05	108	108	70.0-137			0.000	25
2,2,4-Trimethylpentane	3.75	4.07	4.10	109	109	70.0-130			0.734	25
Vinyl Bromide	3.75	4.03	4.02	107	107	70.0-130			0.248	25
Isopropylbenzene	3.75	4.25	4.29	113	114	70.0-130			0.937	25
(S) 1,4-Bromofluorobenzene				*101*	*100*	*60.0-140*				

Method Blank (MB)

(MB) R3528771-3 05/15/20 07:33

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.584	1.25
Allyl Chloride	U		0.114	0.200
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
Cyclohexane	U		0.0753	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorodifluoromethane	U		0.137	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
n-Hexane	U		0.206	0.630
Methylene Chloride	U		0.0979	0.200
2-Butanone (MEK)	U		0.0814	1.25
MTBE	U		0.0647	0.200
2-Propanol	U		0.264	1.25
Propene	U		0.0932	0.400
Tetrahydrofuran	U		0.0734	0.200
1,1,1-Trichloroethane	U		0.0736	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl acetate	U		0.116	0.200
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
Ethanol	U		0.265	0.630
(S) 1,4-Bromofluorobenzene	*92.1*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3528771-1 05/15/20 06:13 • (LCSD) R3528771-2 05/15/20 06:52

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	3.72	3.71	99.2	98.9	55.0-148			0.269	25
Propene	3.75	3.58	3.59	95.5	95.7	64.0-144			0.279	25
Dichlorodifluoromethane	3.75	3.77	3.69	101	98.4	64.0-139			2.14	25
1,2-Dichlorotetrafluoroethane	3.75	3.74	3.72	99.7	99.2	70.0-130			0.536	25
Chloromethane	3.75	3.64	3.62	97.1	96.5	70.0-130			0.551	25
Vinyl chloride	3.75	3.62	3.59	96.5	95.7	70.0-130			0.832	25
1,3-Butadiene	3.75	3.65	3.62	97.3	96.5	70.0-130			0.825	25
Bromomethane	3.75	3.60	3.67	96.0	97.9	70.0-130			1.93	25
Chloroethane	3.75	3.70	3.75	98.7	100	70.0-130			1.34	25
Trichlorofluoromethane	3.75	3.77	3.69	101	98.4	70.0-130			2.14	25
1,1,2-Trichlorotrifluoroethane	3.75	3.75	3.75	100	100	70.0-130			0.000	25
1,1-Dichloroethene	3.75	3.69	3.67	98.4	97.9	70.0-130			0.543	25
1,1-Dichloroethane	3.75	3.71	3.69	98.9	98.4	70.0-130			0.541	25
Acetone	3.75	3.51	3.58	93.6	95.5	70.0-130			1.97	25
2-Propanol	3.75	3.84	3.84	102	102	70.0-139			0.000	25
Carbon disulfide	3.75	3.64	3.66	97.1	97.6	70.0-130			0.548	25
Methylene Chloride	3.75	3.67	3.69	97.9	98.4	70.0-130			0.543	25
MTBE	3.75	3.73	3.74	99.5	99.7	70.0-130			0.268	25
trans-1,2-Dichloroethene	3.75	3.69	3.67	98.4	97.9	70.0-130			0.543	25
n-Hexane	3.75	3.75	3.72	100	99.2	70.0-130			0.803	25
Vinyl acetate	3.75	3.23	3.29	86.1	87.7	70.0-130			1.84	25
Methyl Ethyl Ketone	3.75	3.74	3.74	99.7	99.7	70.0-130			0.000	25
cis-1,2-Dichloroethene	3.75	3.60	3.61	96.0	96.3	70.0-130			0.277	25
Chloroform	3.75	3.69	3.67	98.4	97.9	70.0-130			0.543	25
Cyclohexane	3.75	3.72	3.71	99.2	98.9	70.0-130			0.269	25
1,1,1-Trichloroethane	3.75	3.83	3.78	102	101	70.0-130			1.31	25
Carbon tetrachloride	3.75	3.75	3.77	100	101	70.0-130			0.532	25
m&p-Xylene	7.50	7.58	7.62	101	102	70.0-130			0.526	25
o-Xylene	3.75	3.75	3.81	100	102	70.0-130			1.59	25
4-Ethyltoluene	3.75	3.80	3.69	101	98.4	70.0-130			2.94	25
1,3,5-Trimethylbenzene	3.75	3.65	3.76	97.3	100	70.0-130			2.97	25
1,2,4-Trimethylbenzene	3.75	3.68	3.67	98.1	97.9	70.0-130			0.272	25
Allyl Chloride	3.75	4.00	3.63	107	96.8	70.0-130			9.70	25
Tetrahydrofuran	3.75	3.70	3.69	98.7	98.4	70.0-137			0.271	25
2,2,4-Trimethylpentane	3.75	3.71	3.68	98.9	98.1	70.0-130			0.812	25
Vinyl Bromide	3.75	3.83	3.67	102	97.9	70.0-130			4.27	25
(S) 1,4-Bromofluorobenzene				*95.7*	*97.2*	*60.0-140*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

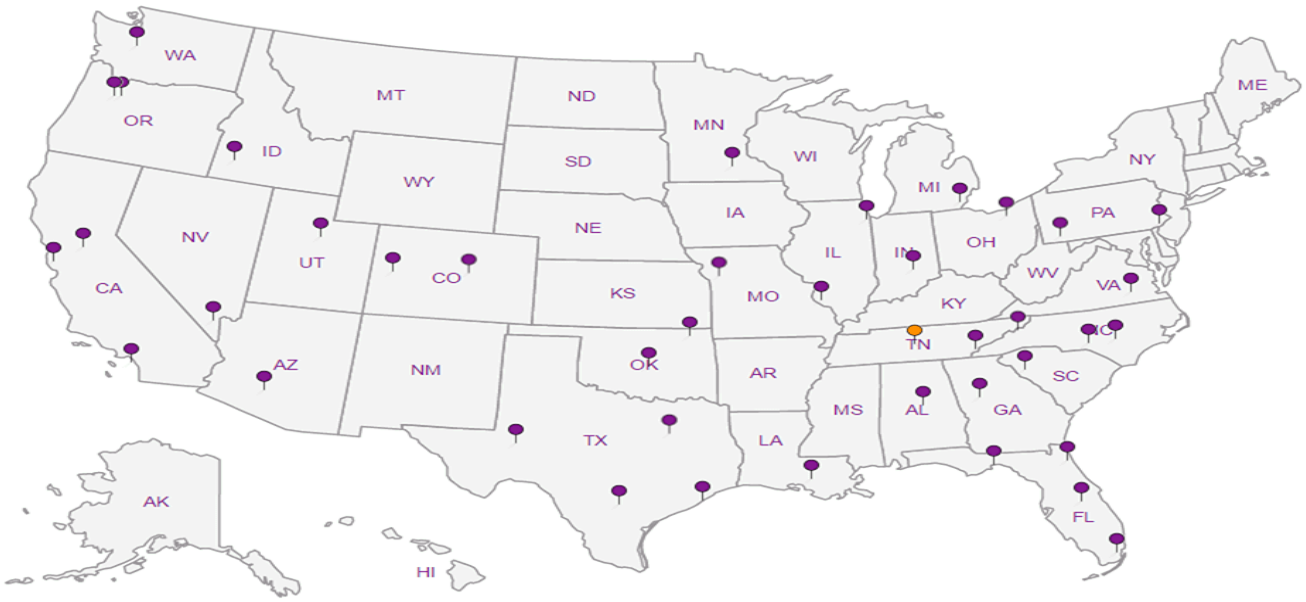
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Geosolve, Inc - Grass Valley, CA

111 Bank Street
Suite 392
Grass Valley, CA 95945

Report to: **Rob Cambell**

Project Description: **Parts and Tow**

City/State Collected: Morgan Hill CA

Please Circle: PT MT CT ET

Phone: ~~825-863-1198~~ 925-963-1198

Client Project # 2020-06

Lab Project # GEOSOLVEGVCA-PARTTOW

Collected by (print):

Site/Facility ID # 2020-06

P.O. # 2020-06

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ✓ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Billing Information:
Rob Cambell
111 Bank Street
Suite 392
Grass Valley, CA 95945

Email To: **rcampbell@geosolve-inc.com**

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TO-15 Summa	Remarks	Sample # (lab only)
VP1-5	Grab	Air	5	5.6.20	9:56	1	X		-01
VP2-5		Air	5		10:10	1	X		-02
VP3-5		Air	5		10:20	1	X		-03
VP4-5		Air	5		10:40	1	X		-04
VP5-5		Air	5		11:10	1	X		-05
VP6-5		Air	5		11:30	1	X		-06
~~VP0-5~~		Air	5			1	X		

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L1218010

Table #

Acctnum: **GEOSOLVEGVCA**

Template: **T167048**

Prelogin: **P770532**

PM: **546 - Jared Starkey**

PB: CSG 04/29/20

Shipped Via: **FedEX 2nd Day**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: NO Duplicate. Had to Redo VP2

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 1498 9154 9146

Sample Receipt Checklist

COC Seal Present/Intact:	NP ___Y ___N
COC Signed/Accurate:	___Y ___N
Bottles arrive intact:	___Y ___N
Correct bottles used:	___Y ___N
Sufficient volume sent:	___Y ___N
If Applicable	
VOA Zero Headspace:	___Y ___N
Preservation Correct/Checked:	___Y ___N
RAD Screen <0.5 mR/hr:	___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	5.6.20	3:05	05/06/20 1530	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb °C Bottles Received: 6
	5-11-20	1203		
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/13/20 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

GEOSOLVEGVCA L1218010-03/-05/-06 Pressure Differences

Chelsea Paulson

Sent: Thu 5/14/2020 10:10 AM
To: Jared N. Starkey
Cc: **Air**

L1218010-03 was received in at -10”; client recorded -15”.
L1218010-05 was received in at -2.5”; client recorded -15”.
L1218010-06 was received in at 0”; client recorded -15”.

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 2009A17

Report Created for: Geosolve, Inc.

1807 Santa Rita Rd; Suite H
Pleasanton, CA 94566

Project Contact: Rob Campbell
Project P.O.: 2020-06
Project: 2020-06; Parts and Tow

Project Received: 09/18/2020

Analytical Report reviewed & approved for release on 09/22/2020 by:

Yen Cao
Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: Geosolve, Inc.
Project: 2020-06; Parts and Tow
WorkOrder: 2009A17

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CPT	Consumer Product Testing not NELAP Accredited
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
LQL	Lowest Quantitation Level
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: Geosolve, Inc.
Project: 2020-06; Parts and Tow
WorkOrder: 2009A17

Analytical Qualifiers

H	Samples were analyzed out of hold time
e2	Diesel range compounds are significant; no recognizable pattern
e7	Oil range compounds are significant

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Geosolve, Inc.	**WorkOrder:**	2009A17
Date Received:	09/18/2020 14:35	**Extraction Method:**	SM4500H+B-2000
Date Prepared:	09/18/2020	**Analytical Method:**	SM4500H+B
Project:	2020-06; Parts and Tow	**Unit:**	pH units @ 25°C

pH

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-13W	**2009A17-001B**	**Water**	**09/17/2020**	**WetChem**	**205886**

Analytes	Result	Qualifiers	Accuracy	DF	Date Analyzed
pH	**6.84**	H	±0.05	1	09/18/2020 21:31

Analyst(s): PHU

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-17W	**2009A17-005B**	**Water**	**09/18/2020**	**WetChem**	**205886**

Analytes	Result	Qualifiers	Accuracy	DF	Date Analyzed
pH	**7.25**	H	±0.05	1	09/18/2020 21:37

Analyst(s): PHU

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Geosolve, Inc.	**WorkOrder:**	2009A17
Date Received:	09/18/2020 14:35	**Extraction Method:**	SW3550B/3630C
Date Prepared:	09/21/2020	**Analytical Method:**	SW8015B
Project:	2020-06; Parts and Tow	**Unit:**	mg/Kg

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-15W	**2009A17-003A**	**Sludge**	**09/18/2020**	**GC31B 09212065.D**	**205945**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**15**	1.0	1	09/22/2020 06:52
TPH-Motor Oil (C18-C36)	**30**	5.0	1	09/22/2020 06:52

Surrogates	REC (%)	Limits	
C9	90	70-130	09/22/2020 06:52

Analyst(s): JIS Analytical Comments: e2,e7

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-16W	**2009A17-004A**	**Sludge**	**09/18/2020**	**GC31A 09212062.D**	**205945**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**13**	1.0	1	09/22/2020 05:32
TPH-Motor Oil (C18-C36)	**33**	5.0	1	09/22/2020 05:32

Surrogates	REC (%)	Limits	
C9	93	70-130	09/22/2020 05:32

Analyst(s): JIS Analytical Comments: e2,e7

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Geosolve, Inc.	**WorkOrder:**	2009A17
Date Received:	09/18/2020 14:35	**Extraction Method:**	SW3510C/3630C
Date Prepared:	09/18/2020	**Analytical Method:**	SW8015B
Project:	2020-06; Parts and Tow	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-13W	2009A17-001A	Water	09/17/2020	GC31B 09212035.D	205879

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	09/21/2020 20:52
TPH-Motor Oil (C18-C36)	ND	250	1	09/21/2020 20:52

Surrogates	REC (%)	Limits	
C9	90	70-130	09/21/2020 20:52

Analyst(s): JIS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-14W	2009A17-002A	Water	09/17/2020	GC31B 09212049.D	205879

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	09/22/2020 01:34
TPH-Motor Oil (C18-C36)	ND	250	1	09/22/2020 01:34

Surrogates	REC (%)	Limits	
C9	90	70-130	09/22/2020 01:34

Analyst(s): JIS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-17W	2009A17-005A	Water	09/18/2020	GC31B 09212045.D	205879

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**85**	50	1	09/22/2020 00:14
TPH-Motor Oil (C18-C36)	ND	250	1	09/22/2020 00:14

Surrogates	REC (%)	Limits	
C9	91	70-130	09/22/2020 00:14

Analyst(s): JIS Analytical Comments: e2

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Geosolve, Inc.	**WorkOrder:**	2009A17
Date Prepared:	09/18/2020	**BatchID:**	205886
Date Analyzed:	09/18/2020	**Extraction Method:**	SM4500H+B-2000
Instrument:	WetChem	**Analytical Method:**	SM4500H+B
Matrix:	Water	**Unit:**	pH units @ 25°C
Project:	2020-06; Parts and Tow	**Sample ID:**	CCV-205886

QC Summary Report for pH

Analyte	CCV Result	CCV Limits
pH	6.97	6.8-7.2

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Geosolve, Inc.	**WorkOrder:**	2009A17
Date Prepared:	09/21/2020	**BatchID:**	205945
Date Analyzed:	09/22/2020	**Extraction Method:**	SW3550B/3630C
Instrument:	GC11B	**Analytical Method:**	SW8015B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	2020-06; Parts and Tow	**Sample ID:**	MB/LCS/LCSD-205945 2009A17-003AMS/MSD

QC Report for SW8015B w/ Silica Gel Clean-Up

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	0.750	1.00	-	-	-
TPH-Motor Oil (C18-C36)	ND	3.90	5.00	-	-	-
Surrogate Recovery						
C9	25.1			25	100	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	38.0	38.4	40	95	96	70-130	1.12	20
Surrogate Recovery								
C9	24.7	24.6	25	99	98	70-130	0.428	20

Analyte	MS DF	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1	53.3	50.4	40	15.11	96	88	70-130	5.63	20
Surrogate Recovery										
C9	1	25.0	23.6	25		100	94	70-130	5.90	20

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Geosolve, Inc.	**WorkOrder:**	2009A17
Date Prepared:	09/18/2020	**BatchID:**	205879
Date Analyzed:	09/21/2020	**Extraction Method:**	SW3510C/3630C
Instrument:	GC11A	**Analytical Method:**	SW8015B
Matrix:	Water	**Unit:**	µg/L
Project:	2020-06; Parts and Tow	**Sample ID:**	MB/LCS/LCSD-205879

QC Report for SW8015B w/ Silica Gel Clean-Up

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	30.0	50.0	-	-	-
TPH-Motor Oil (C18-C36)	ND	120	250	-	-	-
Surrogate Recovery						
C9	563			625	90	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	835	793	1000	84	79	70-130	5.16	20
Surrogate Recovery								
C9	564	561	625	90	90	70-130	0.532	20

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 2009A17 **ClientCode: GSP**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
☐ Detection Summary ☐ Dry-Weight

Report to:
Rob Campbell
Geosolve, Inc.
1807 Santa Rita Rd; Suite H
Pleasanton, CA 94566
(925) 963-1198 FAX:
Email: rcampbell@geosolve-inc.com
cc/3rd Party:
PO: 2020-06
Project: 2020-06; Parts and Tow

Bill to:
Accounts Payable
Geosolve, Inc.
1807 Santa Rita Rd; Suite H
Pleasanton, CA 94566
rcampbell@geosolve-inc.com

Requested TAT: 2 days;
Date Received: 09/18/2020
Date Logged: 09/18/2020

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
2009A17-001	B-13W	Water	9/17/2020 00:00	☐	B	A	A									
2009A17-002	B-14W	Water	9/17/2020 00:00	☐		A	A									
2009A17-003	B-15W	Water	9/18/2020 00:00	☐		A	A									
2009A17-004	B-16W	Water	9/18/2020 00:00	☐		A	A									
2009A17-005	B-17W	Water	9/18/2020 00:00	☐	B	A	A									

Test Legend:

1	PH_W	2	PRDisposal Fee	3	TPH(DMO)WSG_W	4	
5		6		7		8	
9		10		11		12	

Project Manager: Angela Rydelius **Prepared by: Lilly Ortiz**

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: GEOSOLVE, INC. **Project:** 2020-06; Parts and Tow **Work Order:** 2009A17
Client Contact: Rob Campbell **QC Level:** LEVEL 2
Contact's Email: rcampbell@geosolve-inc.com **Comments:** **Date Logged:** 9/18/2020

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2009A17-001A	B-13W	Water	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	2	aVOA, Unpres	☐	9/17/2020	2 days	Present	☐	
2009A17-001B	B-13W	Water	SM4500H+B (pH)	1	125mL HDPE, unprsv.	☐	9/17/2020	2 days	Present	☐	
2009A17-002A	B-14W	Water	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	2	aVOA, Unpres	☐	9/17/2020	2 days	Present	☐	
2009A17-003A	B-15W	Water	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	2	aVOA, Unpres	☐	9/18/2020	2 days	Present	☐	
2009A17-004A	B-16W	Water	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	2	aVOA, Unpres	☐	9/18/2020	2 days	Present	☐	
2009A17-005A	B-17W	Water	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	2	aVOA, Unpres	☐	9/18/2020	2 days	Present	☐	
2009A17-005B	B-17W	Water	SM4500H+B (pH)	1	125mL HDPE, unprsv.	☐	9/18/2020	2 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

General COC

MAI Work Order # 2009A17

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701
Telephone: (877) 252-9262 / Fax: (925) 252-9269
www.mccampbell.com main@mccampbell.com

RUSH

CHAIN OF CUSTODY RECORD

Turn Around Time:	1 Day Rush		2 Day Rush	●	3 Day Rush		STD		Quote #	
J-Flag / MDL		ESL		Cleanup Approved		Dry Weight		Bottle Order #		
Delivery Format:	PDF		GeoTracker EDF		EDD		Write On (DW)		Detect Summary	

Report To: Rob Campbell — Bill To: GeoSolve, Inc.

Company: GeoSolve, Inc.

Address: 111 Bank Street, Suite 392, Grass Valley, CA 95945

Email: rcampbell@geosolve-inc.com — Tele: (925) 963-1198

Project Name: Parts and Tow — Project #: 2020-06

Project Location: 18960 Monterey Road, Morgan Hill — PO # 2020-06

Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative
B-13W	9.17.20		3	groundwater	Ø
B-14W	9.17.20		2		Ø
B-15W	9.18.20		2		Ø
B-16W	9.18.20		2		Ø
B-17W	9.18.20		3		Ø

Analysis Requested

SAMPLE ID	Multi Range as Gas, Diesel, and Motor Oil (8021/8015)	BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silica Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)*	Baylands Requirements	Lab to filter sample for dissolved metals analysis		pH	
B-13W				●														●	
B-14W				●															
B-15W				●															
B-16W				●															
B-17W				●														●	

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
	9.18.20			9/18/20	2035

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 2.8 °C Initials TP

WA

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	**Geosolve, Inc.**	Date and Time Received:	**9/18/2020 14:35**
Project:	**2020-06; Parts and Tow**	Date Logged:	**9/18/2020**
		Received by:	Lilly Ortiz
WorkOrder №:	**2009A17** Matrix: Water	Logged by:	Lilly Ortiz
Carrier:	Client Drop-In		

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐	
Chain of custody signed when relinquished and received?	Yes	☑	No	☐	
Chain of custody agrees with sample labels?	Yes	☑	No	☐	
Sample IDs noted by Client on COC?	Yes	☑	No	☐	
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐	
Sampler's name noted on COC?	Yes	☑	No	☐	
COC agrees with Quote?	Yes	☐	No	☐	NA ☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	NA ☑
Shipping container/cooler in good condition?	Yes	☑	No	☐	
Samples in proper containers/bottles?	Yes	☑	No	☐	
Sample containers intact?	Yes	☑	No	☐	
Sufficient sample volume for indicated test?	Yes	☑	No	☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☐	No	☑	NA ☐
Samples Received on Ice?	Yes	☑	No	☐	
(Ice Type: WET ICE)					
Sample/Temp Blank temperature	Temp: 3.8°C				NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☑	No	☐	NA ☐
Sample labels checked for correct preservation?	Yes	☑	No	☐	
pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO3: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA ☑
UCMR Samples:					
pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes	☐	No	☐	NA ☑
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes	☐	No	☐	NA ☑

Comments: Method SM4500H+B (pH) was received past its 0.01-day holding time.

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 2010008

Report Created for: Geosolve, Inc.

1807 Santa Rita Rd; Suite H
Pleasanton, CA 94566

Project Contact: Rob Campbell
Project P.O.: 2020-06
Project: 2020-06; Parts and Tow

Project Received: 10/01/2020

Analytical Report reviewed & approved for release on 10/02/2020 by:

Yen Cao
Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: Geosolve, Inc.
Project: 2020-06; Parts and Tow
WorkOrder: 2010008

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CPT	Consumer Product Testing not NELAP Accredited
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
LQL	Lowest Quantitation Level
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: Geosolve, Inc.
Project: 2020-06; Parts and Tow
WorkOrder: 2010008

Analytical Qualifiers

b1	Aqueous sample that contains greater than ~1 vol. % sediment

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Geosolve, Inc.	**WorkOrder:**	2010008
Date Received:	10/01/2020 8:09	**Extraction Method:**	SW3510C/3630C
Date Prepared:	10/01/2020	**Analytical Method:**	SW8015B
Project:	2020-06; Parts and Tow	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-15W	2010008-001A	Water	09/28/2020	GC11A 10012022.D	206607

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	10/01/2020 16:12
TPH-Motor Oil (C18-C36)	ND	250	1	10/01/2020 16:12

Surrogates	REC (%)	Limits	
C9	100	70-130	10/01/2020 16:12

Analyst(s): JIS Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-16W	2010008-002A	Water	09/28/2020	GC31B 10012009.D	206607

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	10/01/2020 20:05
TPH-Motor Oil (C18-C36)	ND	250	1	10/01/2020 20:05

Surrogates	REC (%)	Limits	
C9	96	70-130	10/01/2020 20:05

Analyst(s): JIS Analytical Comments: b1

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Geosolve, Inc.	**WorkOrder:**	2010008
Date Prepared:	10/01/2020	**BatchID:**	206607
Date Analyzed:	10/02/2020	**Extraction Method:**	SW3510C/3630C
Instrument:	GC6B	**Analytical Method:**	SW8015B
Matrix:	Water	**Unit:**	µg/L
Project:	2020-06; Parts and Tow	**Sample ID:**	MB/LCS/LCSD-206607

QC Report for SW8015B w/ Silica Gel Clean-Up

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	30.0	50.0	-	-	-
TPH-Motor Oil (C18-C36)	ND	120	250	-	-	-
Surrogate Recovery						
C9	602			625	96	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	997	1210	1000	100	121	70-130	19.3	20
Surrogate Recovery								
C9	555	569	625	89	91	70-130	2.38	20

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 2010008 **ClientCode: GSP**

☐ WaterTrax ☐ WriteOn ☐ EDF ☒ EQuIS ☒ Dry-Weight ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
☒ Detection Summary ☐ Excel

Report to:
Rob Campbell
Geosolve, Inc.
1807 Santa Rita Rd; Suite H
Pleasanton, CA 94566
(925) 963-1198 FAX:

Email: rcampbell@geosolve-inc.com
cc/3rd Party:
PO: 2020-06
Project: 2020-06; Parts and Tow

Bill to:
Accounts Payable
Geosolve, Inc.
1807 Santa Rita Rd; Suite H
Pleasanton, CA 94566
rcampbell@geosolve-inc.com

Requested TAT: 1 day;

Date Received: **10/01/2020**
Date Logged: **10/01/2020**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
2010008-001	B-15W	Water	9/28/2020 00:00	☐	A	A										
2010008-002	B-16W	Water	9/28/2020 00:00	☐	A	A										

Test Legend:

1	PRDisposal Fee	2	TPH(DMO)WSG_W	3		4	
5		6		7		8	
9		10		11		12	

Project Manager: Angela Rydelius **Prepared by: Tina Perez**

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: GEOSOLVE, INC. **Project:** 2020-06; Parts and Tow **Work Order:** 2010008
Client Contact: Rob Campbell **QC Level:** LEVEL 2
Contact's Email: rcampbell@geosolve-inc.com **Comments** **Date Logged:** 10/1/2020

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	DryWeight	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2010008-001A	B-15W	Water	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	2	aVOA, Unpres	☐	9/28/2020	1 day	2%+	☐	
2010008-002A	B-16W	Water	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	2	aVOA, Unpres	☐	9/28/2020	1 day	2%+	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

General COC

MAI Work Order # 210 TP 2010008

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701
Telephone: (877) 252-9262 Fax: (925) 252-9269
www.mccampbell.com main@mccampbell.com

RUSH

CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush ● 2 Day Rush 3 Day Rush STD Quote #
J-Flag / MDL ESL Cleanup Approved Dry Weight Bottle Order #
Delivery Format: PDF GeoTracker EDF EDD Write On (DW) Detect Summary

Report To: Rob Camobell Bill To: GeoSolve, Inc.
Company: GeoSolve, Inc.
Address: 111 Bank Street, Suite 392, Grass Valley, CA 95945
Email: rcampbell@geosolve-inc.com Tele: (925) 963-1198
Project Name: Parts and Tow Project #: 2020-06
Project Location: 18960 Monterey Road, Morgan Hill, CA PO # 2020-06
Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	Multi Range as Gas, Diesel, and Motor Oil (8021/8015)	BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silca Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)*	Baylands Requirements	Lab to filter sample for dissolved metals analysis			
B-15W	9.28.20		2	Groundwater	Ice				●															
B-16W	9.28.20		2	Groundwater	Ice				●															

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.
Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
	9.29.20			10/1/20	0809

Comments / Instructions
1ZE083E81513033250

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other
Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 11.0 °C Initials TP
Water

Page 1 of 1

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name: **Geosolve, Inc.**
Project: **2020-06; Parts and Tow**

WorkOrder №: **2010008** Matrix: Water
Carrier: UPS

Date and Time Received: **10/1/2020 08:09**
Date Logged: **10/1/2020**
Received by: Tina Perez
Logged by: Tina Perez

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐		
Chain of custody signed when relinquished and received?	Yes	☑	No	☐		
Chain of custody agrees with sample labels?	Yes	☑	No	☐		
Sample IDs noted by Client on COC?	Yes	☑	No	☐		
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐		
Sampler's name noted on COC?	Yes	☑	No	☐		
COC agrees with Quote?	Yes	☐	No	☐	NA	☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☑	No	☐	NA	☐
Shipping container/cooler in good condition?	Yes	☑	No	☐		
Samples in proper containers/bottles?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA	☐
Samples Received on Ice?	Yes	☑	No	☐		
(Ice Type: OTHERS)						
Sample/Temp Blank temperature	Temp: 11°C				NA	☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☑	No	☐	NA	☐
Sample labels checked for correct preservation?	Yes	☑	No	☐		
pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO3: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA	☑
UCMR Samples:						
pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes	☐	No	☐	NA	☑
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes	☐	No	☐	NA	☑

Comments:

Appendix F

Workplan for Shallow Soil Remediation

GeoSolve, Inc.®
Geoscience Solutions rather than Status-Quo

Visit us at www.geosolve-inc.com

WORKPLAN FOR SHALLOW SOIL REMEDIATION

For

Parts and Tow
18960 Monterey Road
Morgan Hill, California

For

JEMCOR DEVELOPMENT PARTNERS, LLC

By

GeoSolve, Inc.

Project No. 2020-06
April 12, 2021

111 Bank Street, Suite 392 • Grass Valley, CA 95945
rcampbell@geosolve-inc.com • (925) 963-1198

GeoSolve, Inc.®
Geoscience Solutions rather than Status-Quo

Visit us at www.geosolve-inc.com

Project No. 2020-06
April 12, 2021

Mr. Jonathan Emami
JEMCOR Development Partners
1700 South El Camino Real, Suite 400
San Mateo, California 94402

Subject: Parts and Tow
18960 Monterey Road
Morgan Hill, California
WORKPLAN FOR SHALLOW SOIL REMEDIATION

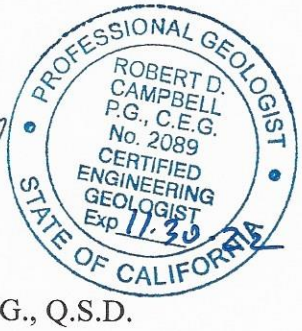
Dear Mr. Emami:

At your request, ***GeoSolve, Inc.*** is pleased to present our Workplan for Shallow Soil Remediation (Workplan) for the above referenced site (Investigation). The subject site consists of one parcel located at 18960 Monterey Road in Morgan Hill, California. The subject property consists of a commercial property occupied by Parts and Tow, an automobile wrecking yard and tow yard.

The purpose of this Workplan is to provide remediation details for the elevated metals and petroleum hydrocarbons detected in the shallow soil during our Phase II Environmental Site Assessment (***GeoSolve, Inc***, October 5, 2020) and in Earth Systems Pacific Phase I Environmental Site Assessment and Limited Phase II Environmental Site Assessment (Earth Systems Pacific, March 26, 2020) conducted at the site.

Should you have any questions relating to the contents of this Workplan or require any additional information, please contact our office at your convenience.

Sincerely,
GeoSolve, Inc.



Robert D. Campbell, M.S., P.G., C.E.G., Q.S.D.
Principal Engineering Geologist

Copies: 1 to JEMCOR Development Partners, LLC

111 Bank Street, Suite 392 • Grass Valley, CA 95945
rcampbell@geosolve-inc.com • (925) 963-1198

TABLE OF CONTENTS

LETTER OF TRANSMITTAL
WORKPLAN FOR SHALLOW SOIL REMEDIATION

INTRODUCTION 1
Previous Environmental Work 1
Geology/Hydrogeology 2
WORKLAN FOR SHALLOW SOIL REMEDIATION 3
Erosion and Sediment Control Plan 3
Workplan Objectives 3
Confirmation Soil Sampling Activities 4
Screening Levels 5
Excavation and Disposal Activities 5
Technical Report Preparation 6
DISTRIBUTION 6
REFERENCES 6

FIGURES

FIGURE 1 - SITE VICINITY MAP
FIGURE 2 - SITE PLAN
FIGURE 3 – PROPOSED EXCAVATION AREAS
FIGURE 4 – CONCEPTUAL SITE MODEL

APPENDICES

APPENDIX A: SOIL MANAGEMENT PLAN

INTRODUCTION

JEMCOR Development Partners (JEMCOR) contracted with ***GeoSolve, Inc.*** to prepare this Workplan for Shallow Soil Remediation (Workplan) at the subject site. This Workplan summarizes previous environmental work and provides the project details to conduct shallow soil remediation at the subject site.

The subject site is the Parts and Tow wrecking yard located at 18960 Monterey Road in Morgan Hill, California. The subject site has Assessor's Parcel Number (APN) 726-36-059 and is occupies approximately 7.58-acres of land. The purpose of this Phase II ESA was to evaluate contaminants of concern (COC) in the shallow soil, subsurface soil, soil-gas, and groundwater from randomly selected borings at the subject site. The site vicinity is shown on Figure 1 and the site plan is shown on Figure 2.

Previous Environmental Work

In March 2020, Earth Systems Pacific conducted a Phase I ESA and Limited Phase II ESA (March 26, 2020), and in September 2020, ***GeoSolve, Inc.*** conducted a Phase II ESA to further evaluate the shallow and subsurface soil, soil-gas, and groundwater beneath the site, and concluded the following:

- The site was operated as a winery between at least 1939 and 1963, and as an automobile salvage yard since that time.

- The site is listed in regulatory agency databases in connection with handling, storing, and recycling/disposing of hazardous substance related to automobiles, and a minor communication facility at the site. None of the listings indicate that a documented release of hazardous substances has occurred at the site. Additionally, because of the type of listing, status, and/or distance from the subject site, none of the nearby listed sites appear to pose an environmental risk to the subject site.

- Conditions on adjacent properties observed during the site reconnaissance are not likely to adversely affect the subject property.

- The Limited Phase II soil screening revealed the presence of elevated levels of lead, nickel, and chromium distributed at the site, and locally present elevated levels of diesel and motor oil in shallow soil at the site. While results of the limited soil screening did not reveal the presence of hazardous levels of metals, many of the lead, nickel, and chromium levels were well above the California Regional Water Quality Control Board – Region 2 (RWQCB) Environmental Screening Levels (ESL) thresholds for direct human contact, and the potential exists that higher levels could be present on the site.

- No detectable concentrations of polychlorinated biphenyls (PCBs) were detected in shallow soil samples analyzed across the site. No elevated concentrations of volatile organic compounds (VOCs) were detected in the shallow soil, subsurface soil, soil-gas, or groundwater. No elevated concentrations of total petroleum hydrocarbons (TPH) or metals were detected in the subsurface soil or groundwater.

Based on the results of fourteen discrete soil samples (DS-1 through DS-14) listed in the Phase I ESA and Limited Phase II ESA (Earth Systems Pacific, March 26, 2020), and based on the results of soil samples, soil-gas samples, and groundwater samples collected from borings B-1 through B-17, and VP-1 through VP-6 in the Phase II ESA (***GeoSolve, Inc.***, October 5, 2020) the main COCs beneath the site include total extractable petroleum hydrocarbons reported as diesel and motor-oil (TEPHd and TEPHmo), and CAM 22 metals. TEPHd was detected up to 3,500 micrograms per kilogram (mg/Kg) and TEPHmo was detected up to 17,000 mg/Kg in discrete soil sample DS-12 and lead was detected up to 700 mg/Kg in sample DS-8. All soil samples were collected at approximately 0.5-foot below ground surface (bgs). The vertical extent of the COC contamination was limited to the initial 0.5-foot bgs, with the exception of the area near DS-14, which extended down to approximately 1-foot bgs.

Geology and Hydrogeology

The materials underlying the site are mapped as Late Pleistocene alluvium (Qpa) by Helley and Lajoie (1979), which consist of weakly consolidated, slightly weathered, poorly sorted, irregular interbedded clay, silt, sand, and gravel units. The Late Pleistocene alluvium contains local accumulations of freshwater gastropods and pelecypods and continental vertebrate fauna, including camel, bison, horse, sloth, and mammoth fossils. The Late Pleistocene alluvium has a maximum thickness of 150 feet and ranges in age from 35,000 to 70,000 years old, which was deposited from flowing water in stream channels, on stream terraces, and on alluvial fans.

The active trace of the Calaveras Fault is situated approximately 3-miles east of the subject site, and is considered active according to the Alquist-Priolo Earthquake Fault Zones Act (1997), and is a strike-slip fault with right-lateral motion (http://gmw.consrv.ca.gov/shmp/download/quad/MOUNT_SIZER/maps/MT_SZR.PDF).

Groundwater beneath the site is approximately 39 feet to 42 feet bgs and flows toward the east-northeast along local topography.

WORKPLAN FOR SHALLOW SOIL REMEDIATION

Once this Workplan is approved by the County of Santa Clara Department of Environmental Health (CSCDEH), a ***GeoSolve, Inc.*** field geologist will visit the site and outlined the proposed excavation areas shown on Figure 3 in white paint. Underground service alert (USA) will be notified at least two-days prior to commencement of fieldwork to locate all underground utilities at the site. In addition, a site-specific health and safety plan (SSH&SP) will be prepared by a Certified Industrial Hygienist (C.I.H.). A copy of the SSH&SP will be left on-site during the course of fieldwork.

Erosion and Sediment Control Plan

GeoSolve, Inc. will prepare an erosion and sediment control plan (ESCP), which will propose best management practices (BMPs) for the perimeter of the site. Since the area of disturbance will be less than 0.5-acre, a Storm Water Pollution Prevention Plan (SWPPP) is not required for this project. The BMPs will include the following:

- Biodegradable fiber rolls (SC-5)
- Tracking control (TC-1)
- Storm drain inlet protection (SS-10)

The ESCP will be prepared prior to commencement of the fieldwork.

Workplan Objectives

The objectives of this Workplan include:

1. Excavate and dispose the COCs identified in the environmental investigations conducted by Earth Systems Pacific (March 26, 2020) and ***GeoSolve, Inc.*** (October 5, 2020). The excavated soil will be placed on and covered with 4-mil Visqueen plastic sheeting prior to disposal. As shown on Figure 3, eight (8) 30-foot by 30-foot, one (1) 30-foot by 60-foot, and one (1) 100-foot by 120-foot areas are proposed for excavation to approximately 0.5-foot bgs. Excavation to approximately 1-foot bgs is anticipated within the 100-foot by 120-foot area located on the eastern portion of the site; and

2. Excavation activities will continue until all black and/or green soil-stained areas are removed from each excavation, and confirmation soil samples will be collected from the limits of each excavation.

The proposed excavation volumes are shown on Table 1 below, which includes total surface area, cubic yards (cy^3) of soil, fluff factor cy^3 of soil, and tons of soil generated during excavation activities at the site. Excavation of soil will be conducted in accordance with our Soil Management Plan (SMP), which is attached to Appendix A.

Table 1
Proposed Excavation Soil Volumes
Parts and Tow - 18960 Monterey Road
Morgan Hill, California

Area	Number	Total Area (sf)	Depth (feet)	Volume (cy^3)	Fluff Factor (cy^3 x 1.5)	Tons
30' by 30'	8	900	0.5	16.7	25	33.75
30' by 60'	1	1,800	0.5	33.3	50	67.5
100' by 120'	1	12,000	1	444.4	667	900.45
Total		*14,700*		*494.4*	*742*	*1,002*

Confirmation Soil Sampling Activities

A *GeoSolve, Inc.* field geologist will collect confirmation soil samples using laboratory supplied clean glass jars. Soil sampling frequency will be as follows:

- Five (5) bottom confirmation soil samples and four (4) sidewall confirmation soil samples will be collected from the 30-foot by 30-foot excavation areas;
- Ten (10) bottom confirmation soil samples and six (6) sidewall confirmation soil samples will be collected from the 30-foot by 60-foot excavation area; and
- Twenty-five (25) bottom confirmation soil samples and fourteen (14) sidewall confirmation soil samples will be collected from the 100-foot by 120-foot excavation area.

The confirmation soil samples will be sealed, labeled, and placed within a pre-chilled ice chest for temporary storage, and delivered to a State-certified hazardous waste testing laboratory under chain-of-custody documentation for analysis. The confirmation soil samples will be analyzed for TEPHd, TEPHmo, chromium, lead and nickel using Environmental Protection Agency (EPA) Methods SW846/SW8015m and SW6020B.

Excavation and Disposal Activities

A *GeoSolve, Inc.* field geologist will observe a State-licensed hazardous waste contractor excavate the proposed excavation areas shown on Figure 3 to the depths detailed in Table 1. The excavated soil will be place on and covered with 4-mil Visqueen plastic sheeting prior to disposal. Five (5) discrete soil samples will be collected from the excavated soil using laboratory supplied clean glass jars, which will be sealed labeled and placed within a pre-chilled ice chest for temporary storage. The soil samples will be submitted under chain-of-custody documentation to a State-certified hazardous waste testing laboratory for analysis. The soil samples will be analyzed for total petroleum hydrocarbons reported as gasoline (TPHg), gasoline constituent's benzene, toluene, ethyl benzene, total xylenes (BTEX), methyl tertiary butyl ether (MTBE), TEPHd, TEPHmo, VOCs, semi-volatile organic compounds (SVOCs), PCBs, organochlorine pesticides, and CAM 17 metals using EPA Methods SW846/SW8021/SW8015m, SW8026B, SW8270C, SW8080, and SW6020B. If metals, other than barium, are greater than 50 mg/Kg, then these metals will also be analyzed for soluble threshold limit concentration (STLC) using EPA CA Title 22. Once the characterization soil sample results are obtained, the stockpiled soil will be disposed to an accepting Class II landfill under signed non-hazardous waste landfill. Total soil volume for disposal is calculated at 1,002 tons.

Screening Levels

This Workplan will use the following screening levels proposed below on Table 2. The screening levels will be the RWQCB – Region 2 ESLs (2019, Revision 2).

Table 2
ESLs for Shallow Soil Remediation
Parts and Tow - 18960 Monterey Road
Morgan Hill, California

Compound	Media	Residential Screening Level (mg/Kg)	Source
TEPHd	Soil	260	ESL (RWQCB, 2019)
TEPHmo	Soil	12,000	ESL (RWQCB, 2019)
Lead	Soil	82	ESL (RWQCB, 2019)
Nickel	Soil	15,000	ESL (RWQCB, 2019)
Chromium	Soil	120,000	ESL (RWQCB, 2019)

A conceptual site model was prepared for this Workplan and is shown on Figure 4.

Technical Report Preparation

GeoSolve, Inc. will prepare a technical report summarizing the fieldwork and findings of the indoor air sampling activities, which will include field logs, laboratory analytical results, site maps, conclusions, and recommendations. The draft report will be submitted for review prior to being finalized and sealed by a California Certified Engineering Geologist (C.E.G.).

DISTRIBUTION

GeoSolve, Inc. recommends submitting this Workplan to the following:

Mr. Travis L. Flora
Hazardous Materials Specialist II
Site Mitigation Program
County of Santa Clara
Department of Environmental Health
1555 Berger Drive Suite 300
San Jose, California 95112
(408) 918-3486
travis.flora@cep.sccgov.org

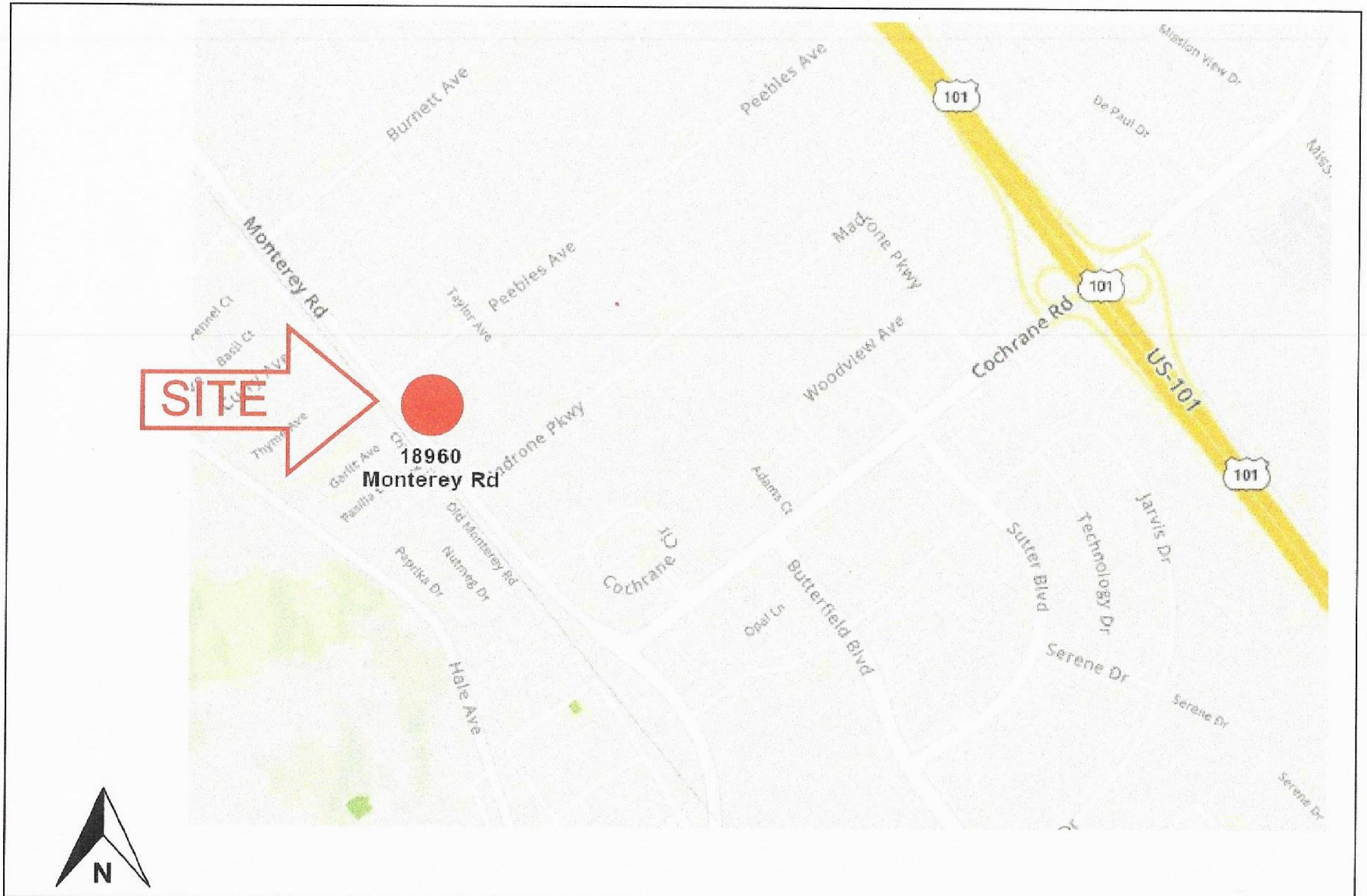
REFERENCES

Earth Systems Pacific, March 26, 2020. *Phase I Environmental Site Assessment and Limited Phase II Environmental Site Assessment at Parts and Tow, 18960 Monterey Road, Morgan Hill, California.*

GeoSolve, Inc., October 5, 2020. *Phase II Environmental Site Assessment at Parts and Tow, 18960 Monterey Road, Morgan Hill, California.* Project No. 2020-06.

Helley, E.J and LaJoie, K.R. *Flatland Deposits of the San Francisco Bay Region, California – Their Geology and Engineering Properties and Their Importance to Comprehensive Planning.* Professional Paper 943, Plate 2.

Regional Water Quality Control Board – San Francisco Bay Region, July 2019. *Environmental Screen Levels for Residential Soil, Revision 2.*



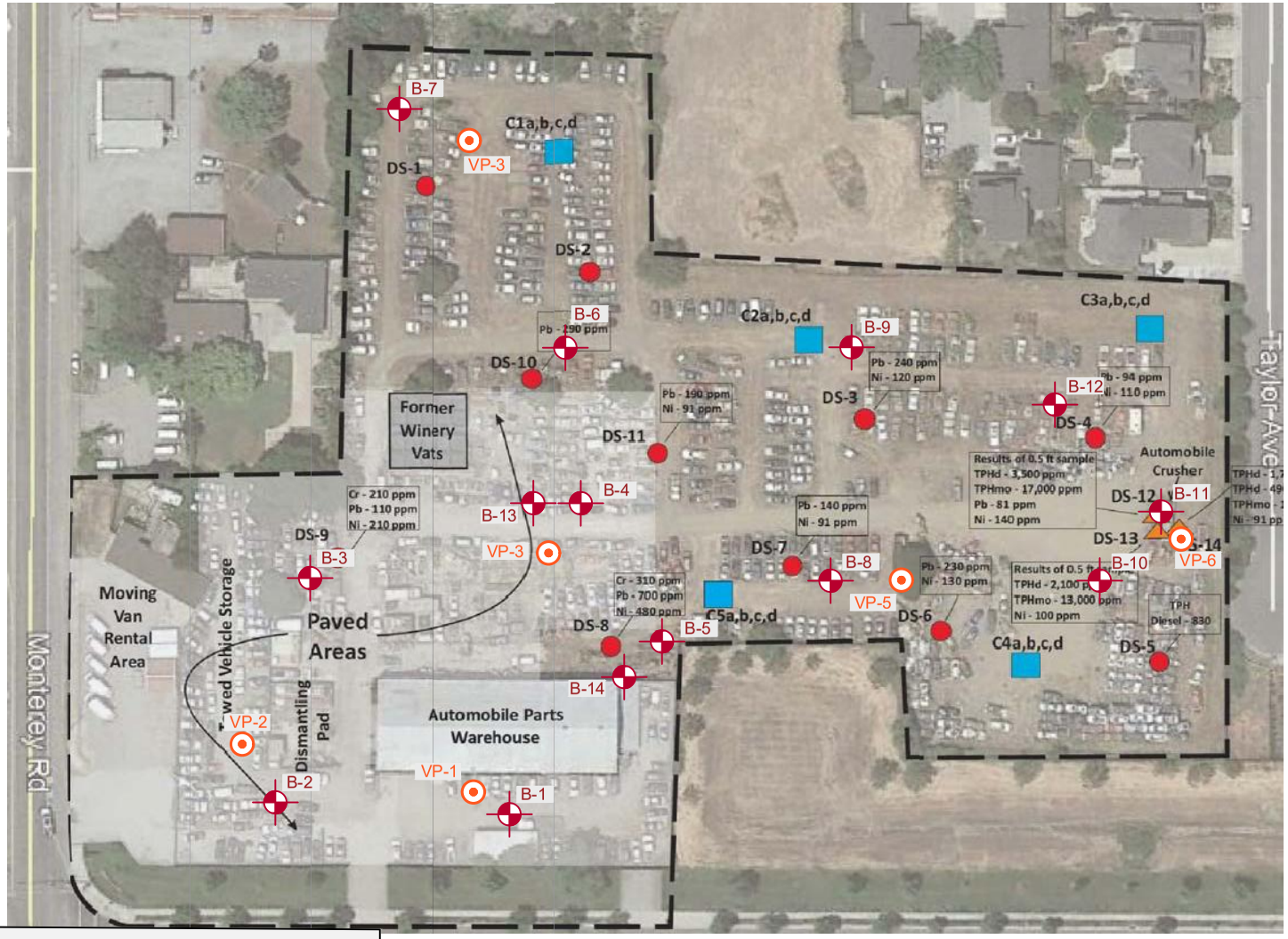
GeoSolve, Inc.
Geoscience solutions rather than Status–Quo
Address: 1807 Santa Rita Rd, Suite D–165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

VICINITY MAP

JEMCOR DEVELOPMENT PARTNERS, LLC
WORKPLAN FOR SHALLOW SOIL REMEDIATION
18960 MONTEREY ROAD
MORGAN HILL, CALIFORNIA

Project No.	Drawn by:
2020-06	GC
Scale:	Date:
NTS	04/2021

Figure No.
1



LEGEND

- Property Line
- B-1 Soil Boring Location
- VP-1 Temporary Vapor Probe Location

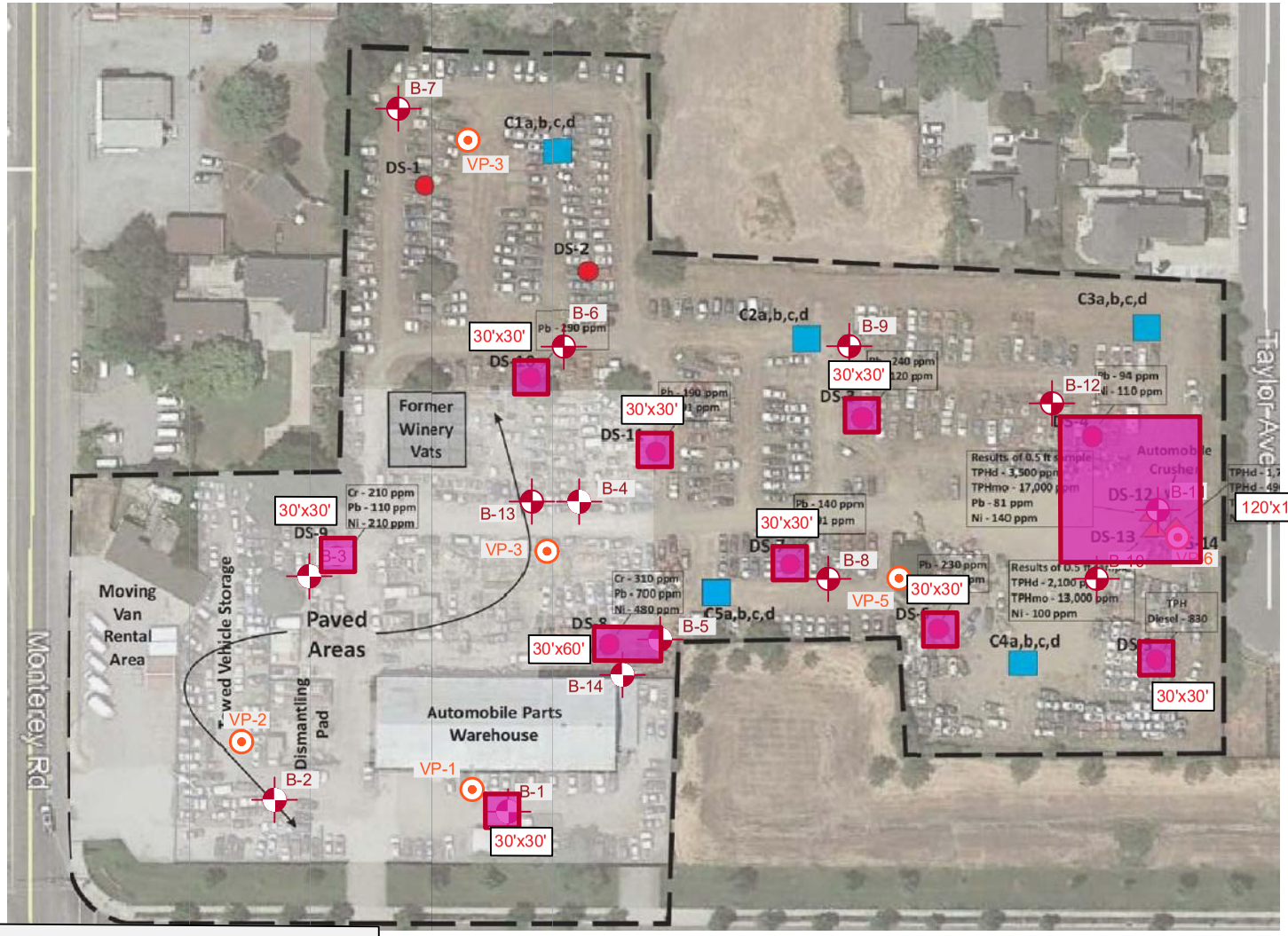
GeoSolve, Inc.
Geoscience solutions rather than Status–Quo
Address: 1807 Santa Rita Rd, Suite D–165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

SITE PLAN

JEMCOR DEVELOPMENT PARTNERS, LLC
WORKPLAN FOR SHALLOW SOIL REMEDIATION
18960 MONTEREY ROAD
MORGAN HILL, CALIFORNIA

Project No.	Drawn by:
2020-06	GC
Scale:	Date:
AS SHOWN	04/2021

Figure No. 2



LEGEND

- Property Line
- B-1 Soil Boring Location
- VP-1 Temporary Vapor Probe Location
- Proposed Excavation Areas to 0.5 feet

N

0 60 120 240

Approximate Scale (feet)

GeoSolve, Inc.
Geoscience solutions rather than Status–Quo
Address: 1807 Santa Rita Rd, Suite D–165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

PROPOSED EXCAVATION PLAN

JEMCOR DEVELOPMENT PARTNERS, LLC
WORKPLAN FOR SHALLOW SOIL REMEDIATION
18960 MONTEREY ROAD
MORGAN HILL, CALIFORNIA

Project No.	Drawn by:
2020-06	GC
Scale:	Date:
AS SHOWN	04/2021

Figure No. 3

APPENDIX A

SOIL MANAGEMENT PLAN

GeoSolve, Inc.®
Geoscience Solutions rather than Status-Quo

Visit us at www.geosolve-inc.com

Project No. 2020-06
April 12, 2021

Mr. Jonathan Emami
JEMCOR Development Partners
1700 South El Camino Real, Suite 400
San Mateo, California 94402

Subject: Parts and Tow
18960 Monterey Road
Morgan Hill, California
SOIL MANAGEMENT PLAN

References:

1) Workplan or Shallow Soil Remediation at 18960 Monterey Road, Morgan Hill, California
By ***GeoSolve, Inc.***
Dated April 6, 2021

2) Phase II Environmental Site Assessment at 18960 Monterey Road, Morgan Hill, California
By ***GeoSolve, Inc.***
Dated October 5, 2020

3) Phase I Environmental Site Assessment and Limited Phase II Environmental Site Assessment at Parts and Tow, 18960 Monterey Road, Morgan Hill, California.
By Earth Systems Pacific, Inc.
Dated March 20, 2020

Dear Mr. Emami:

At your request, ***GeoSolve, Inc.*** has prepared this Soil Management Plan (SMP) for the above-referenced site. The subject property is situated within the South Bay portion of the greater San Francisco Bay region within Santa Clara County. The subject site is the Parts and Tow wrecking yard located at 18960 Monterey Road in Morgan Hill, California. The subject site has Assessor's Parcel Number (APN) 726-36-059 and is occupies approximately 7.58-acres of land. The site vicinity is shown on Figure 1 and the site plan is shown on Figure 2.

The topography at the subject site is approximately 350 feet above mean sea level (msl), which gently slopes northeast towards Coyote Creek, approximately 3.5 miles away. Drainage at the subject site is toward the northeast, along local topography.

The purpose of this SMP is to provide JEMCOR Development Partners, LLC (JEMCOR) with detailed soil management plans associated with excavation and disposal activities at the site once the property is formerly closed by the County of Santa Clara Department of Environmental Health (CSCDEH) and prior to commencement of grading activities at the site.

Based on the results of References 1 through 3, the subject site has been adequately evaluated for environmental concerns and is ready for redevelopment.

SOIL MANAGEMENT PLAN

This SMP has been prepared for JEMCOR and their contractors who are planning to grade the subject site. These sections below detail site-specific steps necessary to adequately remove all subsurface soil. Contingencies if underground storage tanks (USTs), contaminated soil, and/or other potentially adverse conditions are encountered are summarized in this SMP.

Site Preparation

Prior to excavation, the Contractor will be conducting initial mobilization activities that are non-invasive. These activities include setting up field offices, underground utility line location, preparing dust control measures, marking the excavation areas, and other pre-excavation activities.

Decontamination Procedures

Contractor will be responsible for decontaminating all equipment exiting the Site by installing crushed rock pads and street sweeping as needed. The Contractor will decontaminate all field equipment used at the Site prior to (1) exiting a contaminated work area and entering a clean area and (2) before transporting the equipment off-Site. Trucks and earth moving equipment will be inspected for signs of visible contamination upon entering and exiting the site or exiting a contaminated work area and entering a clean area. Sediment tracking due to tires and treads will be minimized to the maximum extent possible. Decontamination of trucks and equipment will include removal of visible soil or mud and will occur on the decontamination pad. Decontamination of trucks will be performed on truck tires, the inside of fenders, tailgates, wheel wells, mud flaps, the outsides of the truck bed, and other areas where significant accumulations of dirt may occur. Decontamination of construction equipment will be performed on treads, and any other surface that touches soil and will be managed in the erosion and sediment control plan

(ESCP). A storm water pollution prevention plan (SWPPP) is not required since the proposed area of soil disturbance will be less than 1-acre in size.

General Grading Activities

All fieldwork must be conducted in accordance with the Dust Control Plan attached as Appendix A as well as Section 4.3 of the Initial Study.

If potentially adverse environmental conditions are encountered during excavation activities at the subject property, then the following contingencies must be followed, depending on the item(s) and/or situation(s) encountered and discussed below.

Procedures if Previously Unknown Contamination is Encountered

Once excavation activities are initiated, previously unknown potentially contaminated soil may be encountered. If potentially contaminated soil is encountered during soil excavation, the protocols summarized below will be followed by all onsite personnel:

1. If visibly stained soil or soil with odors is encountered during the excavation, the ***Geosolve, Inc.*** Project Geologist will notify Morgan Hill Fire Department (MHFD) and CSCDEH and a representative Evaluation Soil Sample will be collected and analyzed to evaluate chemical concentrations in the soil. Chemical analyses of soil samples collected from visibly contaminated or odorous soil, if encountered, will include total extractable petroleum hydrocarbons reported as diesel and motor-oil (TEPHd and TEPHmo) and lead. If the list of chemical analyses for the Evaluation Soil Sample differs from those listed here, CSCDEH will be consulted. The soil samples will be delivered to a State-certified hazardous waste testing laboratory for analysis using EPA Methods SW846/SW8015m and SW6020.

2. Such soil will be handled as potentially hazardous waste until shown otherwise. If chemical concentrations in the soil samples are found to exceed the published screening criteria for residential land use (such as Environmental Screening Levels [ESLs]), impacted soil will be excavated to the extent feasible and stockpiled separately. Confirmation soil samples will be collected from the bottom and sidewalls of the excavation area to verify that the impacted soil has been removed.

Management of Unknown USTs and/or Structures Uncovered During Excavation Activities

In the event an unknown underground container or structure (e.g., underground storage tank, sump, drum, or pipe) that could have potentially hazardous materials is discovered during excavation

activities, all work in the vicinity of the underground container or structure will cease and SCFD and CSCDEH will be notified. Such containers and structures, if any, and all associated piping or other appurtenances will be removed in accordance with applicable laws and regulations, the requirements in this SMP, and the management protocols described below:

- If the structure is a former petroleum-containing UST, ***GeoSolve, Inc.*** will notify MHFD and CSCDEH. The UST will be removed in accordance with MHFD requirements. The MHFD may require a work plan prior to tank removal, investigation, and closure.

- Residual liquid or sludge, if present in the encountered below-grade structure or pipeline, will be removed, placed in sealed storage containers, characterized as required by laws and regulations and as otherwise required by the permitted disposal facility, and appropriately disposed.

- If an additional historical agricultural well is encountered during grading activities, SCS Development will contract with ***GeoSolve, Inc.*** to destroy the well(s) in accordance with SCVWD requirements.

- The below-grade structure will be removed. Any visibly contaminated or odorous soil surrounding the below-grade structure or pipe will be managed according to the protocols described below:

    - If the structure is a pipe, it may not be necessary to remove the entire pipe, especially if the pipe extends beyond construction, if the pipe does not contain contaminated, hazardous, flammable, or explosive liquid, sludge, or gas. Under these conditions, the pipe may be cut, removed, and the ends capped. The removed pipe will be disposed in accordance with applicable laws and regulations. If the pipe material contains asbestos, then the material will be handled in accordance with applicable air quality and hazardous waste management laws and regulations and appropriate protocols for handling asbestos materials. As indicated above, if the pipe contains potentially hazardous materials, the materials will be removed, contained, and appropriately disposed of. The pipe will be removed, and underlying soil inspected for visible contamination or odors.

    - A PID with a 10.6-volt bulb (for VOCs) must be used to evaluate any pipe and/or structures for petroleum and/or VOC vapors. If vapors are detected, ghost-wipe samples must be collected from the structure(s) and analyzed for VOCs and petroleum-hydrocarbons using Environmental Protection Agency (EPA) Methods SW846/SW8260B, SW8015m with silica-gel cleanup, and SW8021.

Based on the results of the ghost wipe samples, handing of the material as a hazardous waste/substance or construction debris will be determined in the field by a ***GeoSolve, Inc.*** Project Geologist.

DISTRIBUTION

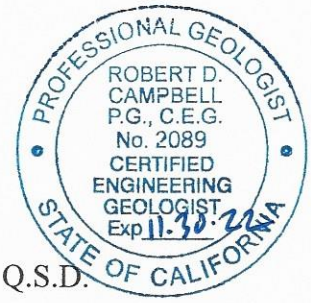
GeoSolve, Inc. recommends submitting this Soil Management Plan to the following:

Mr. Travis L. Flora
Hazardous Materials Specialist II
Site Mitigation Program
County of Santa Clara
Department of Environmental Health
1555 Berger Drive Suite 300
San Jose, California 95112
(408) 918-3486
travis.flora@cep.sccgov.org

Please contact us at your convenience if you have any questions regarding this Soil Management Plan or if you require additional information.

Sincerely,

GeoSolve, Inc.



Robert D. Campbell, M.S., P.G., C.E.G., Q.S.D.
Principal Engineering Geologist

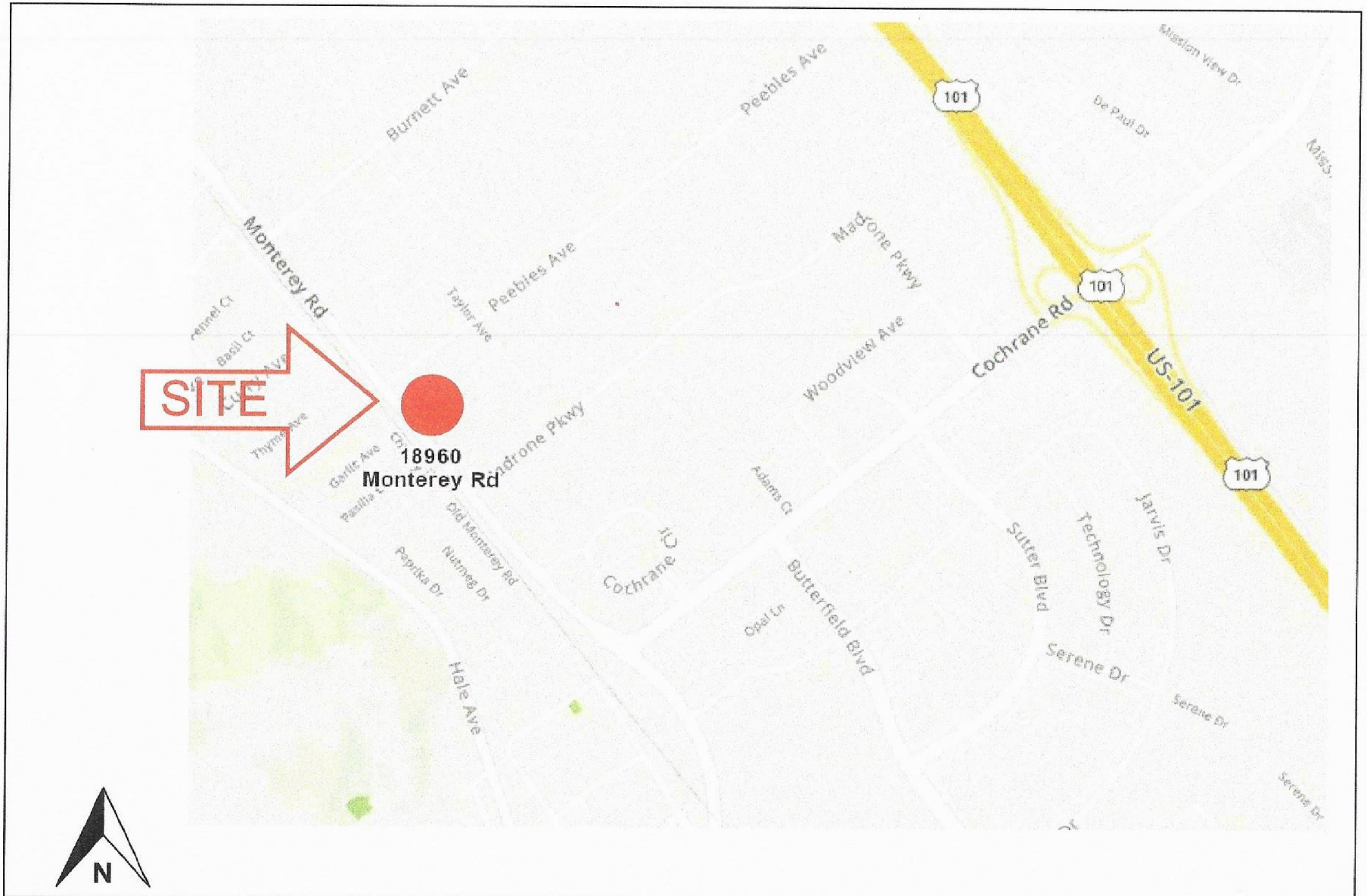
Attachments: Figure 1, Site Vicinity Map
Figure 2, Site Plan
Appendix A: Dust Monitoring Plan

REFERENCES

Earth Systems Pacific, Inc., March 20, 2020. *Phase I Environmental Site Assessment and Limited Phase II Environmental Site Assessment at Parts and Tow, 18960 Monterey Road, Morgan Hill, California.*

GeoSolve, Inc., October 5, 2020. *Phase II Environmental Site Assessment at 18960 Monterey Road, Morgan Hill, California.*

GeoSolve, Inc., April 6, 2021. *Workplan or Shallow Soil Remediation at 18960 Monterey Road, Morgan Hill, California.*



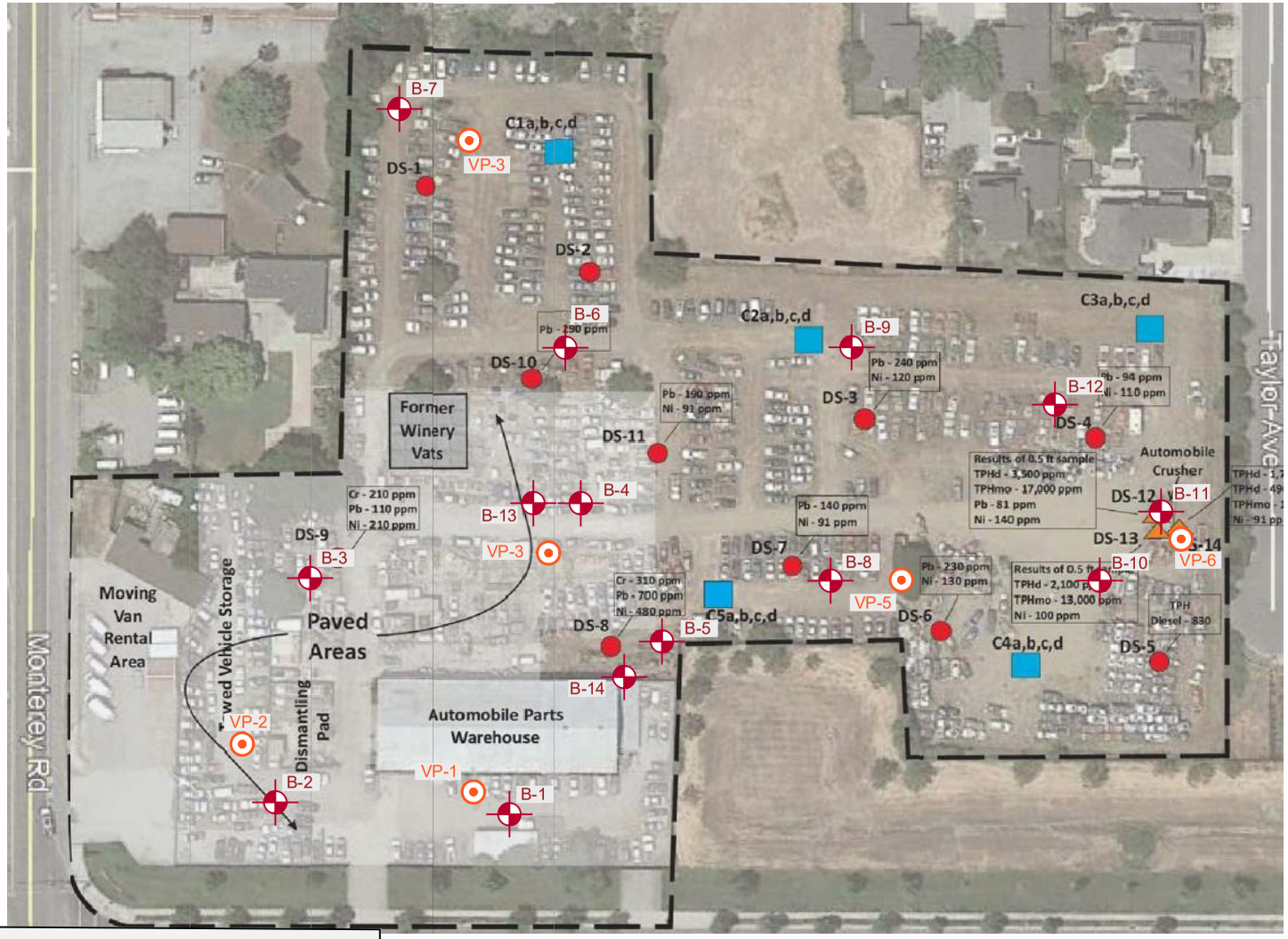
GeoSolve, Inc.
Geoscience solutions rather than Status–Quo
Address: 1807 Santa Rita Rd, Suite D–165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

VICINITY MAP

JEMCOR DEVELOPMENT PARTNERS, LLC
WORKPLAN FOR SHALLOW SOIL REMEDIATION
18960 MONTEREY ROAD
MORGAN HILL, CALIFORNIA

Project No.	Drawn by:
2020-06	GC
Scale:	Date:
NTS	04/2021

Figure No.
1



LEGEND

- Property Line
- B-1 Soil Boring Location
- VP-1 Temporary Vapor Probe Location

GeoSolve, Inc.
Geoscience solutions rather than Status–Quo
Address: 1807 Santa Rita Rd, Suite D–165
Pleasanton, California 94566
Visit us at www.geosolve-inc.com

SITE PLAN

JEMCOR DEVELOPMENT PARTNERS, LLC
WORKPLAN FOR SHALLOW SOIL REMEDIATION
18960 MONTEREY ROAD
MORGAN HILL, CALIFORNIA

Project No.	Drawn by:
2020-06	GC
Scale:	Date:
AS SHOWN	04/2021

Figure No. 2

APPENDIX A

DUST CONTROL PLAN

APPENDIX A
DUST CONTROL PLAN

1.0 INTRODUCTION

GeoSolve, Inc. has prepared this Dust Control Plan for the proposed Monterey-Madrone Apartments on the current Parts and Tow site located at 18960 Monterey Road in Morgan Hill, California (Figures 1 & 2). The property is owned by JEMCOR Development Partners, LLC (JEMCOR). This Dust Control Plan describes the general dust control procedures and protocols that will be employed during implementation of the Soil Management Plan (SMP) prepared by ***GeoSolve, Inc.*** (April 2021) for the Site.

If the Contractor proposes to deviate from the procedures specified in this Dust Control Plan, the Contractor will be required to prepare a letter for JEMCOR approval that will be attached to this Plan. The Contractor will implement the procedures documented in this Dust Control Plan and any additional addendum to this Plan. JEMCOR and their representative (***GeoSolve, Inc.*** or other selected representative) will verify that the Contractor implements this Dust Control Plan and the Contractor's addendum to this Plan.

1.1 Objective

Actions at the Site that may contribute to dust emission, such as soil excavation, stockpiling soil, construction vehicle traffic, and wind flowing over disturbed soil, will be addressed in this Plan. It is the objective of this Dust Control Plan to establish the project-specific requirements for control of dust emissions during excavation and soil management activities at the Site.

1.2 Nature and Extent of Contamination

The chemicals of concern (COCs) at the site include the following:

- Lead
- Petroleum hydrocarbons as diesel and motor-oil

1.3 Regulatory Requirement

Work activities at the Site must comply with the Bay Area Air Quality Management District (BAAQMD) and the California Code of Regulations requirements. Specifically, all excavation and soil management activities must comply with BAAQMD Regulation 6, regulating visible particulate matter. Section 6-1-305 of BAAQMD Regulation 6 states that "A person shall not emit particles from any operation in sufficient number to cause annoyance to any other person, which particles are large enough to be visible as individual particles at the emission point or of such size

and nature as to be visible individually as incandescent particles." Section 6-1-305 shall only apply if such particles fall on real property other than that of the person responsible for the emission.

DUST CONTROL PROCEDURES

Each day (including weekends and holidays) that work activities are conducted, dust control procedures must be implemented.

2.0 Dust Control Measures During Excavation Activities

Dust control measures will be implemented by the Contractor throughout the excavation and management of the contaminated soil. At a minimum, the contractor must meet all applicable dust emission regulations and the project 8-hour time weighted average and 5-minute instantaneous dust monitoring criteria. The following sections present minimum dust control requirements.

2.0.1 General Dust Control Measures

During excavation and soil management activities, the site will be misted or sprayed with water by a water truck as often as needed to prevent formation of dust.

- A speed limit of no more than 10 miles per hour will be used on the Site.
- Drop heights of soil will be kept to a minimum. As soil is loaded in trucks and stockpiled, water will be applied if minimizing the drop heights does not prevent the formation of dust.
- Decontamination of vehicle tires that come into contact with contaminated soil will be performed prior to exiting the Site or entering a clean zone. See Soil Management Plan for decontamination procedures.
- Throughout soil off-hauling activities adjacent streets, both on-Site and off-Site, will be inspected at least three times per day including once at the end of the shift and, if necessary, will be swept using a vacuum street sweeper.
- If wind speeds exceed 20 miles per hour for more than 15 minutes or if dust control measures are not able to prevent visible dust emissions, soil moving activities will be ceased until wind speeds decrease and no visible emissions are observed.
- To minimize dust emissions, water or soil stabilizers will be applied to all unpaved access roads, parking areas, and staging areas at the Site as needed.

- All stockpiles of impacted soil will be covered with weighted plastic sheeting or tarp at the end of each work day and on days, such as weekends and holidays, when excavation and soil management activities are not being conducted.

- Trucks off-hauling impacted soil will be covered with tarps prior to departure to prevent the release of dust once the trucks exit the Site. All non-hazardous waste (e.g., general trash, concrete, asphalt, rock, etc.) will be transported and disposed of in accordance with all applicable laws and regulations.

- A stabilized construction entrance/exit will be constructed and used for any unpaved access.

2.0.2 Stockpile Dust Control Measures

Contractors shall use the following measures to manage on-Site stockpiles:

- Soil excavation should be staged to minimize stockpiling soil by placing excavated soil directly into trucks. Soil excavation, handling, and stockpiling shall be performed in a manner which limits and controls the mixing of impacted material from non-impacted material.

- Stockpiles of soil that contain detectable concentrations of COCs will be securely covered with plastic sheeting (minimum 4-mil thickness) at the end of each work day. Alternatively, stockpiles can be sprayed with a non-toxic chemical soil binder acceptable to CSCDEH. Soil stockpiles will be managed in accordance with procedures outlined in this plan and the ESCP.

- Silt fencing, hay bales, straw rolls, Visqueen covers, or other BMPs shall be implemented and maintained as necessary to control storm water run-on or runoff from all stockpiles, as specified in the ESCP. At a minimum, stockpiles shall be covered or stabilized with a non-toxic chemical soil binder acceptable to CSCDEH prior to inclement weather.

- Construction debris (if encountered) shall be removed from the excavated soil and stockpiled separately for off-Site disposal.

3.0 CONTINGENCY MEASURES FOR DUST CONTROL

Upon observation of visible dust at the Site perimeter, the Contractor will immediately cease dust generating activities. Before resuming work, the Contractor must increase and/or revise dust control measures to the satisfaction of the JEMCOR's Representative. These measures may

include: increasing the magnitude and frequency of dust control measures, the addition of a favorable reviewed dust reducing compound, and/or to use water to control dust. If weather conditions warrant further dust control measures, the Contractor may employ additional dust control fabrics, windscreens, and enclosures for transport loading operations.

4.0 CONTINGENCY MEASURES FOR ODOR CONTROL

Odorous soil is not anticipated to be present at the Site based on the known conditions of the Site. However, if such odorous soil is encountered, or complaints by the Contractor, LMC's Representative, regulatory agencies, air pollution control authorities, or nearby commercial occupants indicate the need for odor control measures, the Contractor will implement odor control measures. Odor control measures employed by the Contractor may include:

- Applying water containing an odor suppressant as needed.
- Using plastic sheeting or soil to cover odorous open pits, exposed sidewalls, or stockpiles to prevent further release of odors.

Appendix G

Exterior Noise Level Assessment at Common Outdoor Activity Areas

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality

429 E. Cotati Avenue
Cotati, CA 94931

Tel: 707-794-0400 *Fax: 707-794-0405*
www.illingworthrodkin.com *illro@illingworthrodkin.com*

October 20, 2020

Jonathan Emami
JEMCOR Development Partners
1700 S El Camino Real, Suite 400
San Mateo, CA 94402

VIA E-Mail: jemami@jemcorpartners.com

SUBJECT: **Monterey & Madrone, Morgan Hill, California –**
Assessment of Exterior Noise Levels at Common Outdoor Activity Areas

Dear Jonathan:

This letter summarizes our assessment of exterior noise levels at common outdoor activity areas proposed by the Monterey & Madrone residential project in Morgan Hill, California. The project site is located at the northwest corner of the intersection of Monterey Road and Madrone Parkway and is currently occupied by California Tow & Salvage and Burke's Upholstery. Figure 1 is the site plan showing the locations of the two common outdoor activity areas proposed by the project; a small open space area proposed near the Amenity Building (Clubhouse), and the patio, tot lot, and open space area proposed on the easternmost portion of the site near Buildings 13 and 14.

Regulatory Criteria

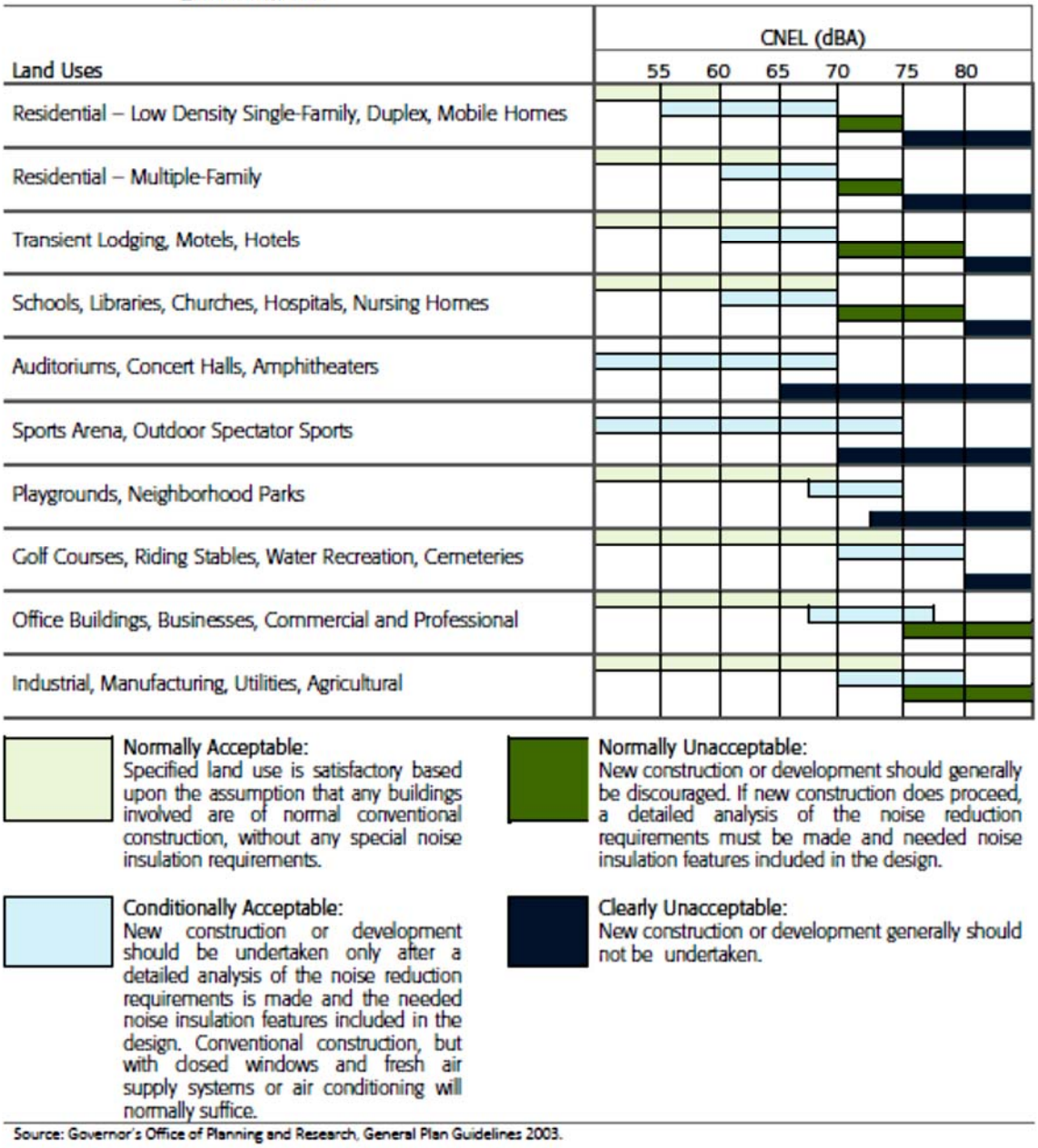
The Safety, Services and Infrastructure Chapter in the Morgan Hill 2035 General Plan sets forth policies with the goal of minimizing the impact of noise on people through noise reduction and suppression techniques, and through appropriate land use policies in the City of Morgan Hill. The following policies are applicable to the proposed project:

Policy SSI-8.1 - *Exterior Noise Level Standards.* Require new development projects to be designed and constructed to meet acceptable exterior noise level standards (as shown in Table SSI-1) as follows:

- Apply a maximum exterior noise level of 60 dBA L_{dn} in residential areas where outdoor use is a major consideration (e.g., backyards in single-family housing developments and recreation areas in multi-family housing projects). Where the City determines that providing an L_{dn} of 60 dBA or lower cannot be achieved after the application of reasonable and feasible mitigation, an L_{dn} of 65 dBA may be permitted.
- Indoor noise levels should not exceed an L_{dn} of 45 dBA in new residential housing units.
- Noise levels in new residential development exposed to an exterior L_{dn} 60 dBA or greater should be limited to a maximum instantaneous noise level (e.g., trucks on busy streets, train warning $_{whistles}$) in bedrooms of 50 dBA. Maximum instantaneous noise levels in all other

habitable rooms should not exceed 55 dBA. The maximum outdoor noise level for new residences near the railroad shall be 70 dBA L_{dn}, recognizing that train noise is characterized by relatively few loud events.

TABLE SSI-1 STATE OF CALIFORNIA LAND USE COMPATIBILITY GUIDELINES FOR COMMUNITY NOISE ENVIRONMENTS



Source: Governor's Office of Planning and Research, General Plan Guidelines 2003.

Policy SSI-8.9 - *Site Planning and Design.* Require attention to site planning and design techniques other than sound walls to reduce noise impacts, including: a) installing earth berms, b) increasing the distance between the noise source and the receiver; c) using non-sensitive structures such as parking lots, utility areas, and garages to shield noise-sensitive areas; d) orienting buildings to shield outdoor spaces from the noise source; and e) minimizing the noise at its source.

Policy SSI-9.2 - *Noise Barrier Dimensions.* If noise barriers are deemed the only effective mitigation for development along major transportation corridors, require an acoustical analysis to determine necessary dimensions.

Policy SSI-9.3 - *Sound Wall Design.* The maximum height of sound walls shall be eight feet. Residential projects adjacent to the freeway shall be designed to minimize sound wall height through location of a frontage road, use of two sound walls or other applicable measures. Sound wall design and location shall be coordinated for an entire project area and shall meet Caltrans noise attenuation criteria for a projected eight-lane freeway condition. If two sound walls are used, the first shall be located immediately adjacent to the freeway right-of-way and the second shall be located as necessary to meet Caltrans noise requirements for primary outdoor areas. The minimum rear yard setback to the second wall shall be 20 feet.

Policy SSI-9.4 - *Sound Barrier Vandalism.* Ensure that sound barriers do not become targets for vandalism and prioritize clean-up if sound walls are vandalized.

Policy SSI-9.6 - *Earth Berms.* Allow and encourage earth berms in new development projects as an alternative to sound walls if adequate space is available.

Policy SSI-9.7 - *Sound Barrier Design.* Require non-earthen sound barriers to be landscaped, vegetated, or otherwise designed and/or obscured to improve aesthetics and discourage graffiti and other vandalism.

Project Condition of Approval 6 also requires the following:

> ***Sound Walls***
> *An Acoustical Analysis shall be provided to demonstrate need for noise impact mitigation. Site planning and design techniques shall be utilized to minimize the use of sound walls. Sound wall is allowed if required to meet noise standards and applicant has demonstrated that other forms of mitigation are not available as described herein.*
>
> *Application demonstrates that other forms of mitigation such as installation of earth berms; increasing the distance between the noise source and the receiver; intervening placement of non-sensitive structures such as parking lots, utility areas, and garages to shield noise sensitive areas; orienting buildings to shield outdoor spaces from the noise sources; and minimizing noise at its source; are not available.*
>
> *If a sound wall is allowed, the maximum height of the sound wall shall be eight feet. Dimension shall be as determined in the acoustical analysis. Residential projects adjacent to the freeway shall meet the criteria as described in SSI-9.3 of the General Plan. The sound wall must be landscaped or vegetated for aesthetic purposes and to prevent graffiti and vandalism. (GP Policy CNF-8.14, SSI-8.9, 9.2, 9.3, 9.4, 9.6, and 9.7.*

Existing Noise Environment

A noise monitoring survey was conducted between 10:00 am on Monday, October 5th and 9:00 am on Thursday, October 8th, 2020 to quantify the existing noise environment on the project site at

locations representative of proposed residential outdoor activity areas. Vehicle traffic was the predominant noise source affecting the site, with local onsite operations and Union Pacific Railroad (UPRR) operations also contributing to measured noise levels.

The noise monitoring survey included one long-term continuous measurements (LT-1 in Figure 1) and one short-term 10-minute duration noise measurement (ST-1 in Figure 1). The noise measurements were made with Larson Davis Laboratories (LDL) Type I Model 820 Sound Level Meters fitted with a ½-inch pre-polarized condenser microphones and windscreens. The meters were calibrated with a Larson Davis Model CAL200 precision acoustic calibrator prior to and following the measurement survey.

The long-term noise monitor was positioned at a height of approximately 12 feet above the ground in a tree approximately 205 feet northwest of the centerline of Madrone Parkway. This location was selected to represent the existing noise environment at the primary outdoor activity areas proposed by the project containing a patio, tot lot, and open space. The measured noise levels at this location for Tuesday, October 6th and Wednesday, October 7th are shown in Figures 2 and 3. The Day/Night Average Noise Level (L_{dn}) was calculated to range from 57 dBA to 58 dBA. On-site operations were likely responsible for the elevated noise levels on the afternoon of October 6th and the morning of October 7th.

The attended short-term noise measurement was made between 9:50 and 10:00 am on October 5th, 2020. This measurement was made east of the small open space area proposed near the Clubhouse. Autos along Madrone Parkway produced noise levels ranging from 52 to 64 dBA while trucks produced noise levels ranging from 61 to 63 dBA. Aircraft produced noise levels ranging from 46 to 68 dBA. Table 1 summarizes the results of these measurements.

Table 1 Summary of Short-term Noise Measurement Data

Noise Measurement Location (Date, Time)	L_{max}	$L_{(1)}$	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	L_{eq}	L_{dn}
ST-1: ~100 feet from the centerline of Madrone Parkway (10/5/20, 9:50 am -10:00 am)	68	67	58	48	44	55	59-60

Note: The L_{dn} level at the short-term site is approximated by correlating data to the corresponding levels at the long-term site.

Future Noise Environment

The future noise environment at the project site would continue to result primarily from vehicular traffic and from conventional trains along the Union Pacific Railroad. High Speed Rail (HSR) is planned, however, operational noise produced by HSR are speculative at this time as the final alignment has not been selected. Potential HSR noise is not included in this analysis.

To determine future traffic noise levels expected along Monterey Road and Madrone Parkway, Year 2025 Cumulative Plus Project peak hour traffic volumes from the nearby Madrone Parkway Carpenters Training Center Project[1] were compared to the existing traffic volumes. The increase in peak hour noise levels was conservatively assumed to correlate to the increase expected in day-

[1] Initial Study/Mitigated Negative Declaration, Madrone Parkway Carpenters Training Center, City of Morgan Hill, September 2019.

night average noise levels. Year 2025 Cumulative traffic volumes along these roadway segments were calculated to result in traffic noise increases 1 dBA L_{dn}. Noise due to conventional rail traffic along the UPRR was also conservatively assumed to increase by 1 dBA L_{dn}. Therefore, the future L_{dn} is expected to range from 60 dBA to 61 dBA at the small open space area proposed near the Clubhouse, and from 58 to 59 dBA at the patio, tot lot, and open space area proposed on the easternmost portion of the site near Buildings 13 and 14. Exterior noise levels would exceed the City's 60 dBA L_{dn} threshold by up to 1 dBA L_{dn} at the small open space area proposed near the Clubhouse, and would not exceed the threshold at the patio, tot lot, or open space area near Buildings 13 and 14.

A review of the site plan shows that the project is consistent with General Plan Policy SSI-8.9. Site planning and design techniques other than sound walls have been implemented to reduce noise impacts, including increasing the distance between the noise source and the receiver, using non-sensitive structures to shield noise-sensitive areas, and orienting buildings to shield outdoor spaces from the noise source.

The small outdoor use area proposed on the north side of the Clubhouse would be acoustically shielded on the west, south, and east sides by the building itself, which is approximately 22 feet tall. Noise emanating from Monterey Road, Madrone Parkway, and the UPRR would be mostly shielded by the intervening project buildings with resultant noise levels less than 60 dBA L_{dn}. An additional noise barrier along the north boundary of this outdoor use area is not recommended as it would not measurably decrease noise levels produced by Monterey Road, Madrone Parkway, and the UPRR.

Exterior noise levels at the patio, tot lot, and open space area would also remain below 60 dBA L_{dn}. With the project, noise produced by the operation of the existing tow and salvage yard would be removed, and additional acoustical shielding of Monterey Road and the UPRR would be provided by 22 to 38-foot tall buildings. An additional noise barrier along the west and south boundary of this outdoor use area is not recommended as resultant noise levels would be less than 60 dBA L_{dn}.

♦ ♦ ♦

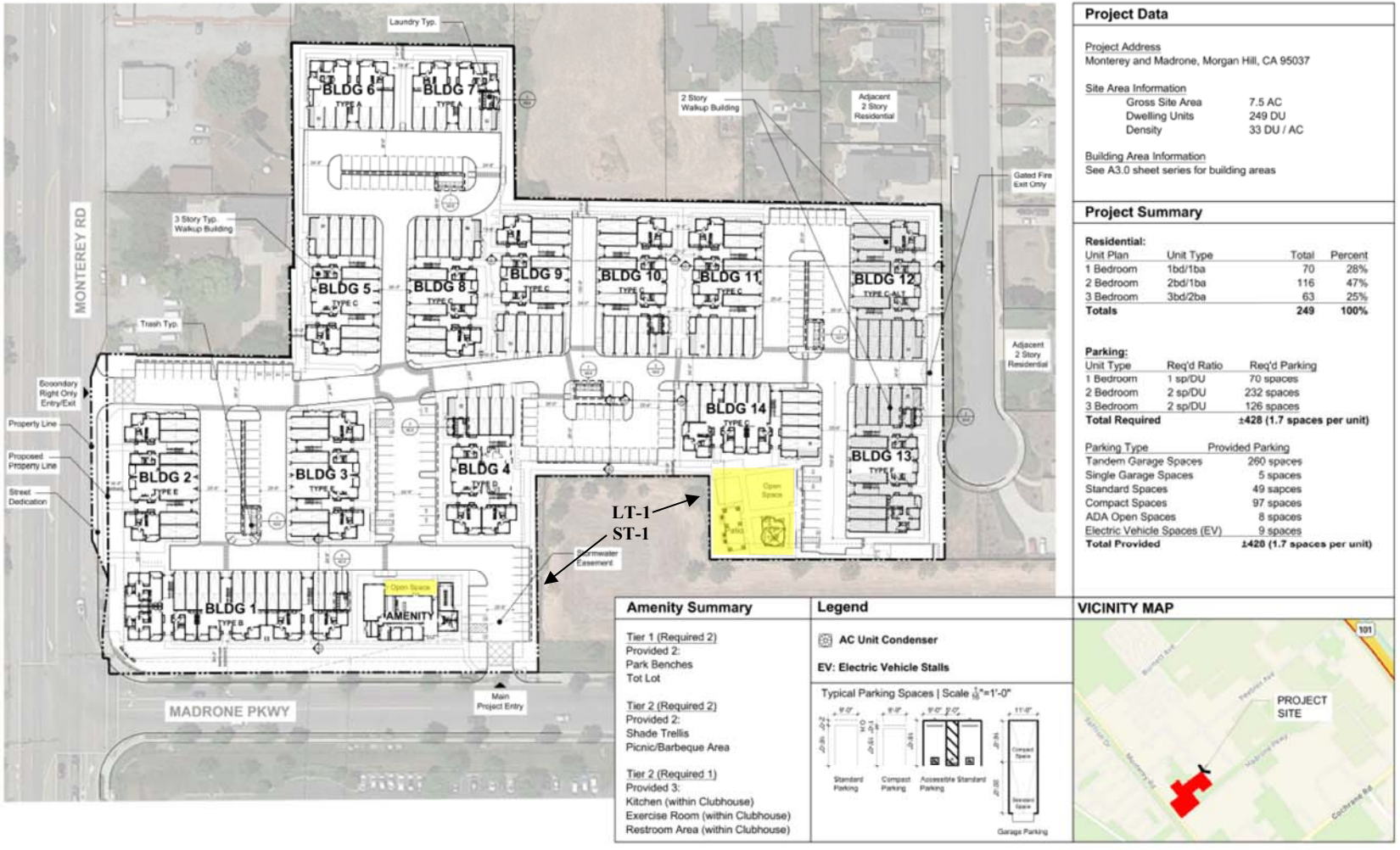
This concludes our assessment of exterior noise levels at the Monterey & Madrone residential project in Morgan Hill. If you have any questions or comments regarding this analysis, please do not hesitate to call.

Sincerely yours,

Michael S. Thill
Principal Consultant
ILLINGWORTH & RODKIN, INC.

(20-154)

Figure 1 – Site Plan Showing Common Outdoor Activity Areas and Noise Measurement Locations



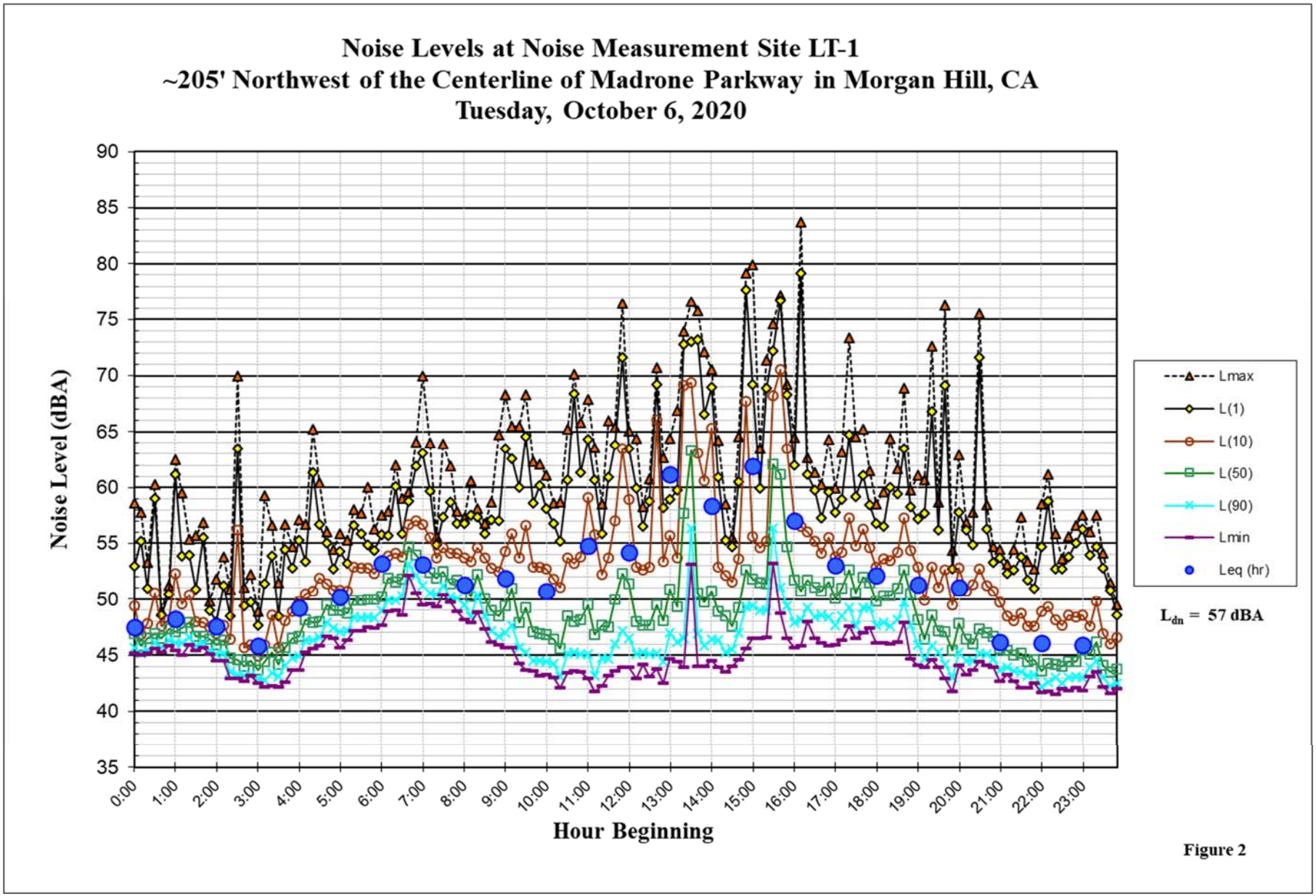

Noise Levels at Noise Measurement Site LT-1
~205' Northwest of the Centerline of Madrone Parkway in Morgan Hill, CA
Tuesday, October 6, 2020
Noise Level (dBA)
90
85
80
75
70
65
60
55
50
45
40
35
0:00
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
Hour Beginning
Lmax
L(1)
L(10)
L(50)
L(90)
Lmin
Leq (hr)
Ldn = 57 dBA

Figure 2

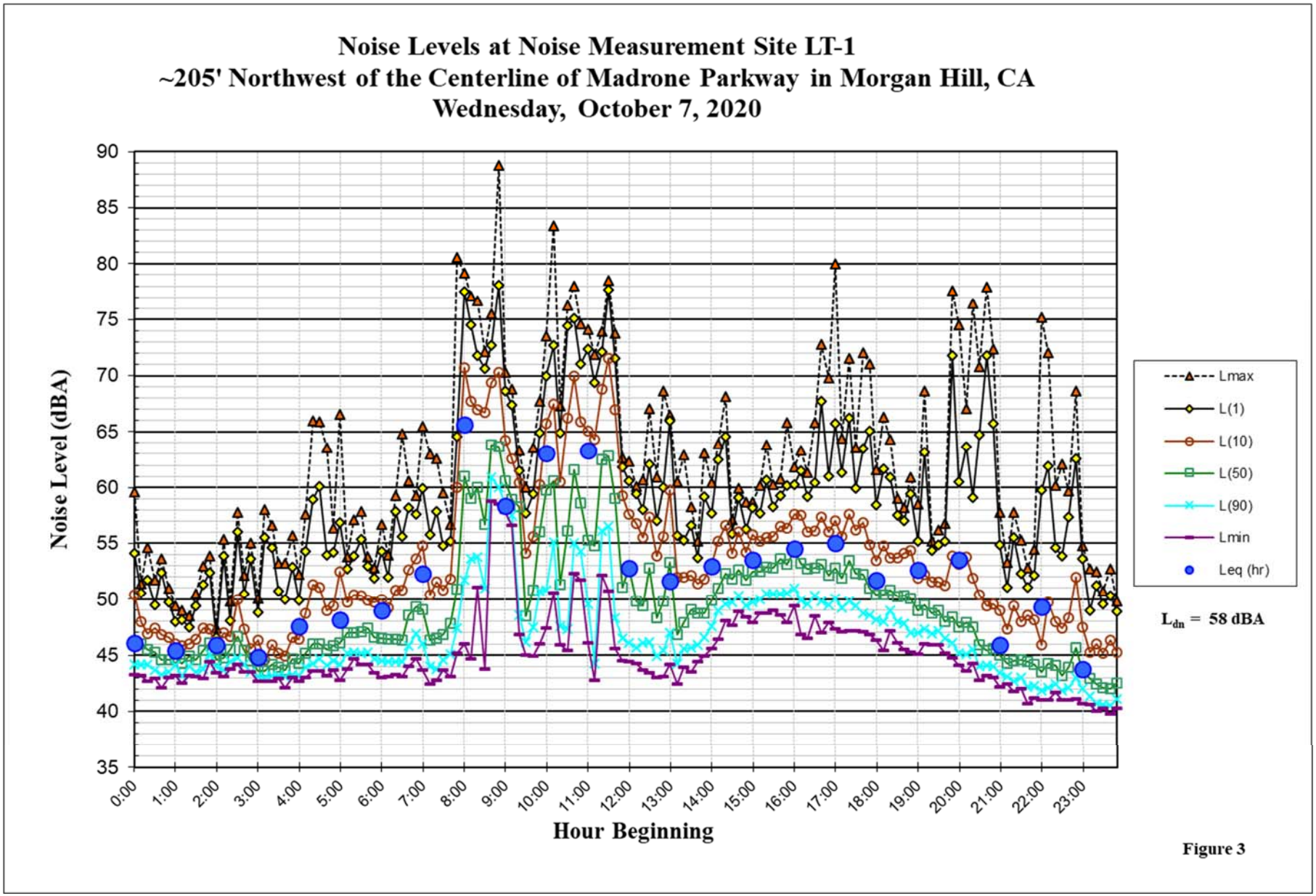

Noise Levels at Noise Measurement Site LT-1
~205' Northwest of the Centerline of Madrone Parkway in Morgan Hill, CA
Wednesday, October 7, 2020
Noise Level (dBA)
90
85
80
75
70
65
60
55
50
45
40
35
0:00
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
Hour Beginning
Lmax
L(1)
L(10)
L(50)
L(90)
Lmin
Leq (hr)
L_{dn} = 58 dBA

Figure 3

Appendix H

Trip Generation and Operations Analysis

Hexagon Transportation Consultants, Inc.

Memorandum

Date: May 6, 2021

To: Nick Pappani, Raney Planning & Management, Inc.

From: Robert Del Rio, T.E.

Subject: Trip Generation and Operations Analysis for the Proposed Monterey-Madrone Affordable Housing Development in Morgan Hill, California

Hexagon Transportation Consultants, Inc. has completed a trip generation and operations analysis for the proposed affordable housing development at the northeast corner of the intersection of Monterey Road and Madrone Parkway in Morgan Hill, California (see Figure 1). The project as proposed consists of the construction of 249 apartment units, which includes three manager units, on a site that is currently occupied by a vehicle tow storage yard and 2,000 square feet (s.f.) of commercial uses (see Figure 2 for site plan). The project would provide 428 parking spaces on-site that would be accessible from driveways along Madrone Parkway and Monterey Road. Emergency vehicle access would be provided via a gated driveway along Taylor Avenue. The methodology, results, and recommendations of the analysis are discussed below.

Scope of Study

The current General Plan, *Morgan Hill 2035 General Plan,* adopted in July 2016 uses Level of Service (LOS) as its primary metric for the evaluation of the projected operation of the City's roadway system. Therefore, this traffic operations analysis based upon peak hour intersection level of service analysis is included for consistency with the General Plan goals and policies. The traffic operations analysis supplements the CEQA required VMT analysis provided in a separate memorandum. However, the determination of project impacts per CEQA requirements is based solely on the VMT analysis.

The purposes of the trip generation and operations analysis are to evaluate the magnitude of traffic that would be added to the roadway system due to the proposed project and to determine whether a comprehensive traffic study is required for the proposed project. The analysis consists of an evaluation of trip generation and peak-hour intersection level of service analysis at intersections in the immediate vicinity of the project site. Traffic conditions were evaluated for the scenarios listed below.

Existing Conditions. Existing conditions represent the existing peak-hour traffic volumes on the existing roadway network. It is not possible to collect new traffic counts due to the current COVID-19 pandemic and its effects on normal traffic conditions. Therefore, existing traffic volumes were represented by traffic counts collected in February 2019 for the intersection of Monterey Road/Madrone Parkway and May 2018 for the remaining study intersections.

Existing Plus Project Conditions. Existing plus project peak-hour traffic volumes were estimated by adding to the existing traffic volumes the additional traffic that would be generated by the proposed project. Existing plus project conditions were evaluated relative to existing conditions in order to determine the effects of the proposed project on existing traffic conditions.

Figure 1
Site Location and Study Intersections

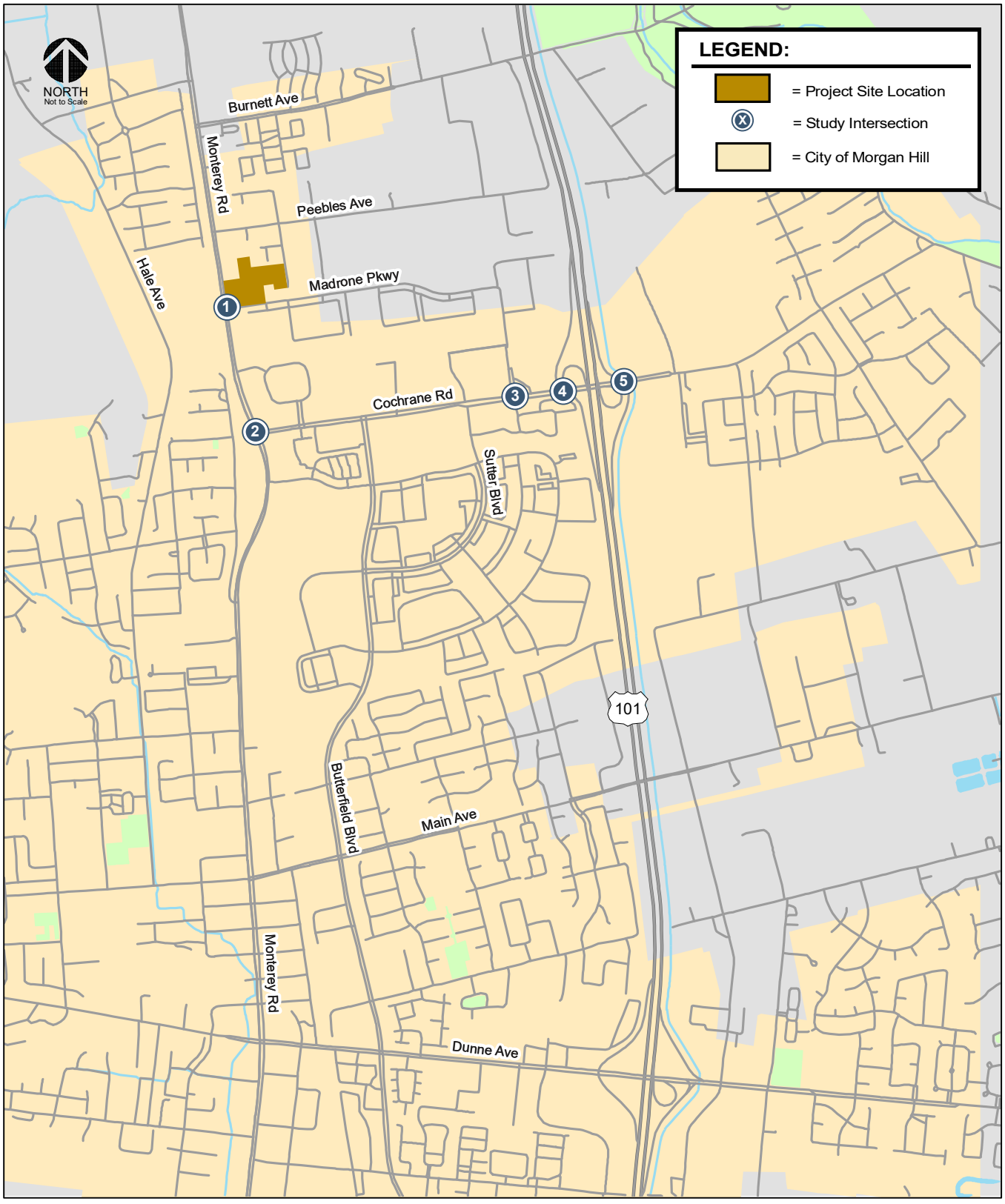
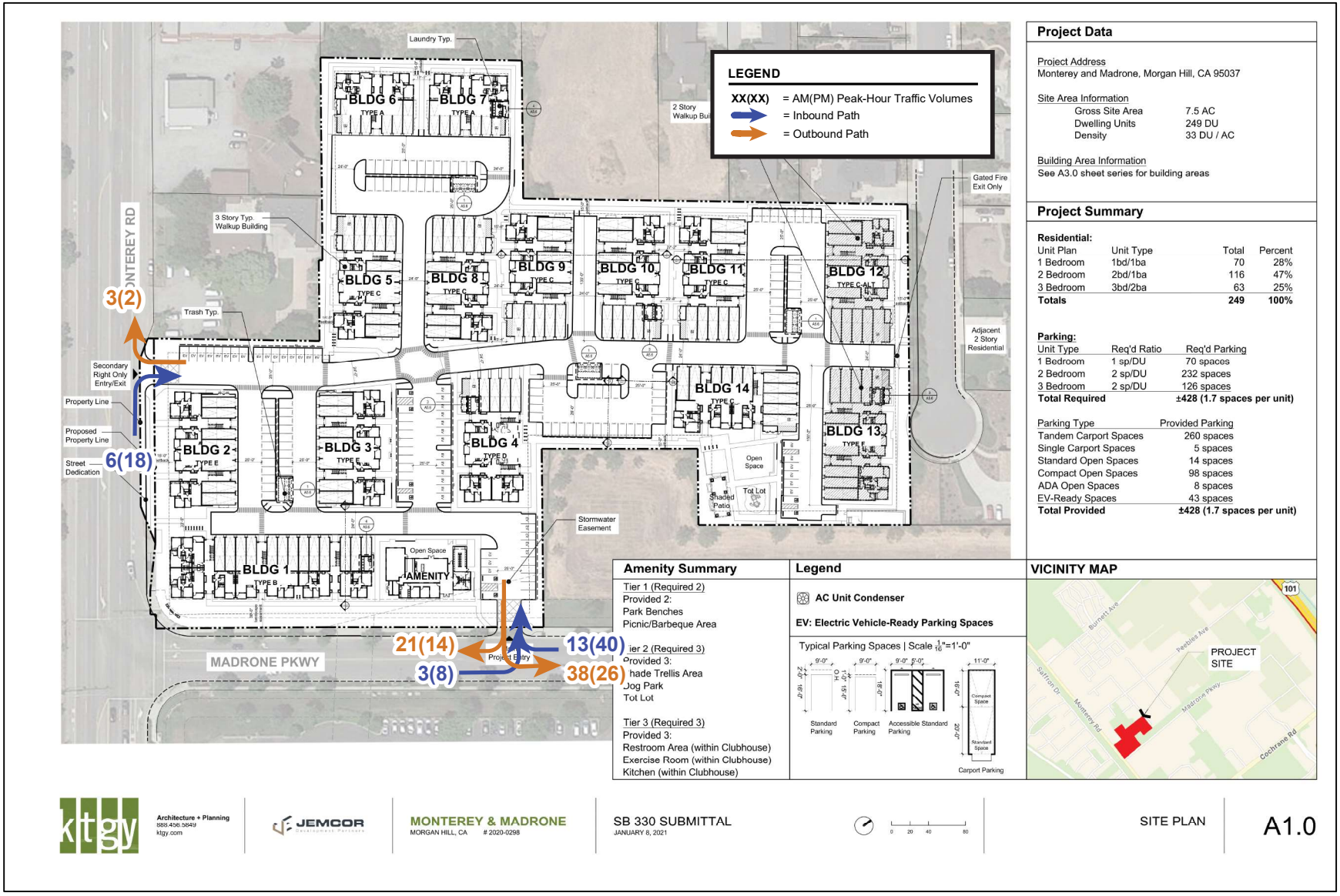


Figure 2
Site Plan and Project Trips at Driveways



Year 2025 Cumulative Conditions. Year 2025 Cumulative conditions represent future traffic volumes on the future transportation network. Year 2025 Cumulative conditions include traffic growth projected to occur in the Year 2025 without the proposed project.

Year 2025 Cumulative with Project Conditions. Year 2025 Cumulative with project consists of Year 2025 Cumulative traffic conditions with the addition of project traffic.

Project Trip Generation Estimates and Assignment

In determining the project trip generation, the magnitude of traffic entering and existing the site is estimated for the AM and PM peak hours. Through empirical research, data have been collected that quantify the amount of traffic produced by many types of land uses. The research is compiled in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 10th Edition (2017)*.The standard trip generation rates can be applied to help predict the future traffic increases that would result from a new development. The rates published for "Multifamily Housing (Mid-Rise)" (ITE Land Use 221) were used to estimate the trips generated by the proposed project. ITE land use #221 includes apartment, townhouse, and condominium developments that have between three and ten levels. As proposed, the site would consist of three-story apartment buildings.

After applying the ITE trip rates, it is estimated that the project would generate 84 vehicle trips (22 inbound and 62 outbound) during the AM peak hour and 107 vehicle trips (65 inbound and 42 outbound) during the PM peak hour (see Table 1). As a conservative approach, trip credit was not applied for the existing tow yard and commercial uses on-site because the uses are likely generating only minimal trips during the peak hours.

Table 1
Trip Generation Summary

			AM Peak Hour				PM Peak Hour			
	ITE Land		Pk-Hr	Trip			Pk-Hr	Trip		
Land Use	Use Code [1]	Size	Rate	In	Out	Total	Rate	In	Out	Total
Proposed Land Use										
Multifamily Housing (Mid-Rise)	221	249 Dwelling Units	0.336	22	62	84	0.43	65	42	107

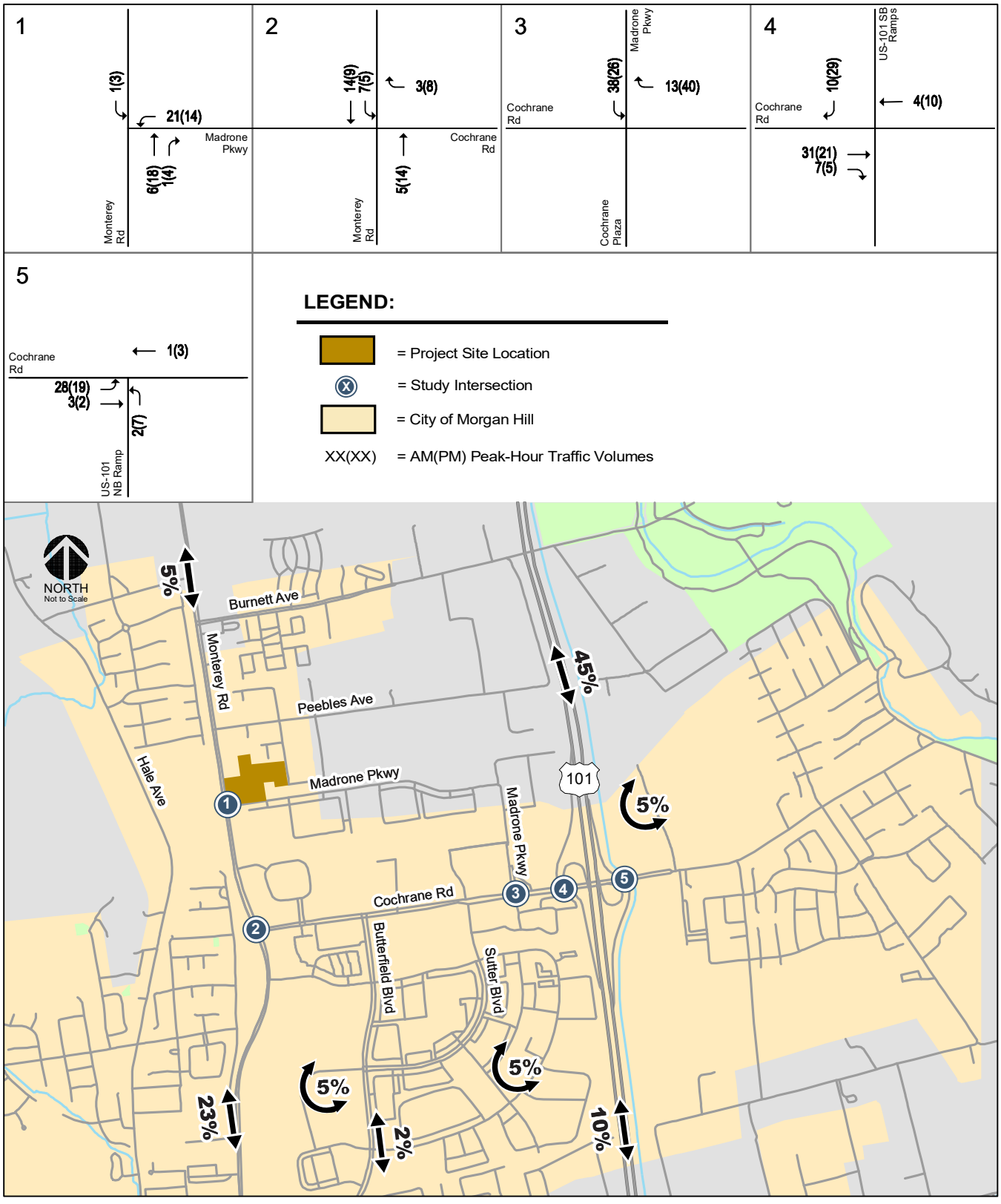
Notes:
[1] Source: ITE *Trip Generation Manual*, 10th Edition 2017.

The directional distribution of site-generated traffic to and from the project site was estimated based on the existing travel patterns on the surrounding roadway network that reflect typical weekday AM and PM peak commute patterns, the location of the project driveways, freeway access points, and the locations of complimentary land uses. The peak-hour project trips associated with the proposed project were added to the transportation network in accordance with the distribution pattern. The project trip distribution pattern and assignment of project trips at the study intersections are shown on Figure 3.

Year 2025 Project Trip Generation Estimates

Peak-hour project trips associated with the adopted General Plan land uses for the project site are included within the 2035 General Plan forecasts and traffic volumes. However, the land use assumed for the project site as part of the General Plan traffic model are general in nature (approximately 46 multi-family dwelling units). The proposed project now provides for a site-specific development plan

Figure 3
Project Trip Distribution



with a defined land use type. Therefore, the development of Year 2025 with Project Cumulative traffic volumes involved adjusting the Year 2025 cumulative traffic volumes to reflect the proposed development plan.

Hexagon prepared trip estimates for the project site land uses included in the City's General Plan traffic model and the proposed development plan. The land use of the proposed development plan is of greater intensity than that assumed in the General Plan traffic model. The proposed development plan would result in 69 more AM peak-hour trips and 87 more PM peak-hour trips at the project site when compared with the land uses included in the City's current General Plan traffic model. The net new project trip generation under Year 2035 General Plan conditions are presented in Table 2.

Table 2
General Plan Project Trip Generation Estimates Comparison

			AM Peak Hour				PM Peak Hour			
	ITE Land		Pk-Hr	Trip			Pk-Hr	Trip		
Land Use	Use Code [1]	Size	Rate	In	Out	Total	Rate	In	Out	Total
Proposed Land Use										
Multifamily Housing (Mid-Rise)	221	249 Dwelling Units	0.336	22	62	84	0.43	65	42	107
Approved Land Use[2]										
Multifamily Housing (Mid-Rise)	221	46 Dwelling Units	0.336	4	11	15	0.43	12	8	20
Net Project Trips				**18**	**51**	**69**		**53**	**34**	**87**

Notes:
[1] Source: ITE *Trip Generation Manual*, 10th Edition 2017.
[2] Approved land uses for the project site were obained from the 2035 General Plan Traffic Demand Forecasting (TDF) model.

Additionally, it should be noted that the following land use designations are currently assigned to the 7.5-acre project site per the City's General Plan Land Use Map:

- Residential Attached Low (6-16 du/ac) – approximately 5.15 acres
- Residential Attached Medium (16-24 du/ac) – approximately 2.35 acres

Per the land use designations and maximum allowable development standards, the project site may support up to 139 dwelling units per the General Plan. However, analysis under cumulative conditions is based on the General Plan traffic model which only assumes development of 46 dwelling units.

Intersection Level of Service Analysis

Traffic conditions at the study intersections were analyzed for the weekday AM and PM peak hours of traffic. The weekday AM peak hour of traffic generally falls within the 7:00 AM to 9:00 AM period and the weekday PM peak hour is typically in the 4:00 PM to 6:00 PM period. It is during these times that the most congested traffic conditions occur on a typical weekday.

Signalized Intersection Analysis

Signalized study intersections are subject to the City of Morgan Hill's level of service standards. The City of Morgan Hill's level of service methodology is TRAFFIX, which is based on the 2000 *Highway Capacity Manual* (HCM) method for signalized intersections. TRAFFIX evaluates signalized intersections operations based on average delay time for all vehicles at the intersection. Since TRAFFIX is also the CMP-designated intersection level of service methodology, the City of Morgan Hill

methodology employs the CMP defaults values for the analysis parameters, which include adjusted saturation flow rates to reflect conditions in Santa Clara County. All intersections within the City of Morgan Hill are required to meet the City's LOS standard of LOS D, with the exception of the following:

- **LOS F** for Downtown intersections and segments including at Main/Monterey, along Monterey Road between Main and Fifth Street, and along Depot Street at First through Fifth Street;

- **LOS E** for the following intersections and freeway zones:
  - Main Avenue and Del Monte Avenue
  - Main Avenue and Depot Street
  - Dunne Avenue and Del Monte Avenue
  - Dunne Avenue and Monterey Avenue
  - Dunne Avenue and Church Street
  - Dunne Avenue and Depot Street
  - Cochrane Road and Monterey Road
  - Tennant Avenue and Monterey Road
  - Tennant Avenue and Butterfield Boulevard
  - Cochrane Road Freeway Zone: from Madrone Parkway/Cochrane Plaza to Cochrane Road/DePaul Drive
  - Dunne Avenue Freeway Zone: from Walnut Grove Drive/East Dunne Avenue to Condit Road/East Dunne Avenue
  - Tennant Avenue Freeway Zone: from Butterfield Boulevard/Tennant Avenue to Condit Road/Tennant Avenue

According to the City of Morgan Hill level of service guidelines, a development is said to create a significant adverse effect on traffic conditions at a signalized intersection if for either peak hour:

1. The level of service at the intersection degrades from an acceptable level (LOS D or LOS E as identified above) under no project conditions to an unacceptable level (LOS E or F) under project conditions, or

2. The level of service at the intersection is an unacceptable level (LOS E or F as identified above) under no project conditions and the addition of project trips causes the average critical delay to increase by four (4) or more seconds *and* the volume-to-capacity ratio (V/C) to increase by 0.01.

An exception to this rule applies when the addition of project traffic reduces the amount of average delay for critical movements (i.e., the change in average delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by 0.01 or more.

Level of Service Results

The results of the intersection level of service analysis show that all study intersections currently operate and are projected to continue to operate at an acceptable LOS C or better conditions under Year 2025 Cumulative conditions, and the addition of project traffic would not result in the degradation of the study intersection's levels of service during the AM and PM peak hours.

Based on the results of the intersection level of service analysis, the project would not have an adverse effect on operations at any of the study intersections. The results of level of service analysis are summarized in Table 3.

Site Access

The evaluation of site access is based on the site plan prepared by KTGY Architecture+Planning dated January 8, 2021. Site access was evaluated to determine the adequacy of the site's access points with regard to the following: traffic volume, geometric design, and sight distance. Site access was evaluated in accordance with generally accepted traffic engineering standards and transportation planning principles.

The project site is proposed to be served by a full-access driveway on Madrone Parkway located approximately 375 feet east of Monterey Road, as shown on Figure 2. The project also proposes a secondary driveway along Monterey Road located approximately 200 feet north of Madrone Parkway.

Driveway Design and Operations

The City of Morgan Hill Design Standards specify a minimum driveway width of 16 feet and a maximum width of 24 feet. The site plan indicates that both driveways along Madrone Parkway and Monterey Road are proposed to be 25 feet wide. The City will determine whether it is necessary to narrow the driveways by 1 foot to meet the maximum driveway width standards.

Based on the project trip generation and trip assignment, it is estimated that a maximum of 65 inbound trips and 62 outbound trips would enter and exit the site during the peak hours. It also is estimated that 3 and 8 trips, respectively, would make inbound left-turns into the project driveway along Madrone Parkway during the AM and PM peak hours, respectively. The estimated project trips at the project driveways are shown on Figure 2.

Though the projected inbound and outbound volumes at the project driveway along Madrone Parkway will be minimal, there may be operational conflicts with traffic flow along Madrone Parkway due to project traffic entering the driveway.

Recommendation: The project will be required to install a dedicated eastbound left-turn lane on Madrone Parkway to serve the project driveway.

Left-turns into and out of the project driveway along Monterey Road are prohibited due to the double solid striped median lane that serves the southbound left-turn lane to Madrone Parkway. Nevertheless, since there currently is no physical restriction, it is possible that illegal left-turns to and from Monterey Road at the project driveway would occur. Additionally, usage of the median lane by project traffic may interfere with the operations of the southbound left-turn lane at the Monterey Road/Madrone Parkway intersection.

Recommendation: It is recommended that a right-turn channelization island be installed at the Monterey Road driveway within the project site, to restrict inbound and outbound left-turns at the proposed driveway. The channelization island will need to be designed to the City's approval and will be reviewed at improvement plan stage.

Sight Distance

The project driveway should be free and clear of any obstructions to provide adequate sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and other vehicles traveling on Madrone Parkway and Monterey Road. Landscaping and signage should be located in such a way to ensure an unobstructed view for drivers existing the site. Sight distance generally should be provided in accordance with Caltrans standards. The minimum acceptable sight distance is most often the stopping sight distance.

Table 3
Intersection Level of Service Summary

Int. #	Intersection	LOS Std	Peak Hour	Count Date	Existing		Existing Plus Project				Year 2025 Cumulative		Year 2025 Cumulative with Project			
					Delay[1]	LOS	Delay[1]	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Delay[1]	LOS	Delay[1]	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C
1	Monterey Road and Madrone Parkway	D	AM	02/28/19	9.4	A	9.6	A	0.2	0.017	10.9	B	11.0	B	0.2	0.017
			PM	02/28/19	9.8	A	9.9	A	0.1	0.009	13.0	B	13.0	B	0.1	0.009
2	Monterey Road and Cochrane Road	E	AM	05/08/18	28.1	C	28.1	C	0.0	0.004	29.2	C	29.2	C	0.0	0.004
			PM	05/08/18	24.0	C	24.1	C	0.2	0.006	25.8	C	26.0	C	0.3	0.006
3	Madrone Parkway/Cochrane Plaza and Cochrane Road	E	AM	05/08/18	19.1	B	19.6	B	0.4	0.022	18.9	B	19.2	B	0.8	0.022
			PM	05/08/18	31.4	C	31.7	C	0.3	0.008	31.8	C	32.1	C	0.3	0.008
4	US 101 Southbound Ramps and Cochrane Road	E	AM	05/08/18	12.8	B	12.8	B	0.2	0.012	13.9	B	14.0	B	0.3	0.012
			PM	05/08/18	16.5	B	16.7	B	0.3	0.015	19.6	B	19.9	B	0.6	0.015
5	US 101 Northbound Ramps and Cochrane Road	E	AM	05/08/18	8.6	A	8.6	A	0.0	0.001	7.9	A	7.9	A	0.0	0.001
			PM	05/08/18	11.3	B	11.2	B	0.1	0.015	11.5	B	11.5	B	0.2	0.018

Notes:
[1]The reported delay and corresponding level of service for signalized intersections represent the average delay for all approaches at the intersection.

Madrone Parkway has a posted speed limit of 35 mph. For a design speed of 35 mph, the recommended Caltrans' stopping sight distance is 250 feet. Based on the project site plan and observations in the field, vehicles exiting the project site driveway would have adequate sight distance in both directions on Madrone Parkway.

Monterey Road has a posted speed limit of 45 mph. For a design speed of 45 mph, the recommended Caltrans' stopping sight distance is 360 feet. Based on the project site plan and observations in the field, vehicles exiting the project site driveway would have sight distance of more than 360 feet in both directions along Monterey Road. It should be noted that the proposed driveway would be located only 250 feet north of Madrone Parkway. However, vehicles turning from Madrone Parkway onto northbound Monterey Road would be traveling at speeds significantly less than 45 mph. Therefore, the proposed site driveway would have adequate sight distance along northbound Monterey Road.

Transit, Pedestrian, and Bicycle Facility Evaluation

The project site is served by VTA bus routes that run along Cochrane Road and Hale Avenue. Frequent Route 68 (Gilroy Transit Center to San Jose Diridon Transit Center) serves bus stops at the intersection of Hale Avenue and Tilton Avenue, approximately 1-mile walking distance from the project site. Local Route 87 (Morgan Hill Civic Center to Burnett Avenue) serves bus stops at Peebles/Monterey, approximately 1,000 feet walking distance and Cochrane Road/Cochrane Circle, approximately ½-mile from the project site. A typical mode split in Morgan Hill would be a three percent transit share. Assuming up to three percent transit mode share for the project equates to no more than three transit riders during each of the peak hours. The transit ridership demands of the proposed project can be accommodated by the existing transit facilities.

Pedestrian generators in the project vicinity include commercial uses along Cochrane Road, Ann Sobrato High School, and bus stops discussed above. In the vicinity of the project site, there are sidewalks along both sides of Madrone Parkway and pedestrian crosswalk facilities at the adjacent nearby signalized intersections. There are no sidewalks along the southbound side of Monterey Road, while sidewalks along the northbound side are not continuous. Although the project will construct a sidewalk along its Monterey Road frontage, there would be missing portions of sidewalk along northbound Monterey Road:

- Between Cochrane Road and 580 feet south of Madrone Parkway
- Between the project site and Peebles Avenue
- Between Peebles Avenue and 200 feet south of Burnett Avenue

Access to nearby pedestrian generators is described below:

- Ann Sobrato High School – Continuous sidewalks provided along both sides of Burnett Avenue between Monterey Road and Ann Sobrato High School. However, no continuous pedestrian route to/from the project site due to missing sidewalks along northbound Monterey Road.
- Route 68 Bus Stop at Hale Avenue/Tilton Avenue - Continuous sidewalks provided along southbound Monterey Road between Burnett Avenue and Tilton Avenue (adjacent to railroad right-of-way) and along eastbound Tilton Avenue between Monterey Road and 550 feet east of Hale Avenue. Crosswalks provided at Monterey/Burnett intersection. No continuous pedestrian route to/from the project site due to missing sidewalks along northbound Monterey Road and 550-foot portion along eastbound Tilton Avenue.
- Route 87 Bus Stop at Peebles Avenue/Monterey Road – Continuous pedestrian route provided via sidewalks along Taylor Avenue and Peebles Avenue. No continuous pedestrian route to/from the project site via northbound Monterey Road due to missing sidewalks.

- Route 87 Bus Stop at Cochrane Road/Cochrane Circle – No continuous pedestrian route to/from the project site due to missing sidewalks along northbound Monterey Road and westbound Cochrane Road.

The implementation of the missing sidewalk segments is beyond the means of the proposed project since their construction would require work within, and possibly acquisition of, right-of-way that is not controlled by the project applicant.

Additionally, none of the curb ramps at the Monterey/Madrone, Monterey/Peebles, Monterey/Burnett, and Monterey/Cochrane intersections are ADA-compliant. The City may require that the project construct ADA-compliant ramps at the north east corner of the Monterey/Madrone intersection and/or contribute to construction of ADA-compliant ramps at the identified intersections.

In the project vicinity, there are bike lanes located along Monterey Road, Cochrane Road, and Burnett Avenue. The project is not expected to generate a significant amount of bicycle trips. The demand generated by the proposed project could be accommodated by the existing bicycle facilities in the vicinity of the project site.

Traffic Study Requirements

The need for the preparation of a comprehensive traffic impact analysis for a particular development is based on its estimated trip generation and its effect on surrounding transportation facilities. The City of Morgan Hill requires the completion of a full traffic impact analysis if one of the following criteria are met:

1. Generates 100 or more net new peak hour trips; except that projects located in the 14-block Downtown Core area are exempt from this requirement. Net new peak hour trips are defined as the number of trips generated by the proposed development minus trips generated by existing development on the project site. (This threshold is consistent with the Valley Transportation Authority (VTA) policy.)

2. Adds 50 to 99 net new peak hour trips to the roadway system where nearby intersections are currently operating at or below the City's LOS standard, or projected to operate at or below the City's LOS standard with traffic added by approved developments; except that projects located in the 14-block Downtown Core area are exempt from this requirement. Adjacent or nearby intersections are defined as intersections to which the proposed development or proposed land use change adds 10 or more vehicle peak hour trips per lane.

3. Creates a transportation issue that City staff requests to have analyzed.

The proposed project will result in the addition of 84 AM peak-hour trips and 107 PM peak-hour trips to the roadway system under existing plus project conditions.

A review of intersection levels of service at the selected study intersections indicates that all study intersections are projected to operate at acceptable conditions during each of the peak hours. The addition of project traffic at each of the study intersections would not result in an adverse effect on operations based on the City's intersection operations standards.

Therefore, the evaluation of trip generation and intersection operations concludes that the proposed project will not result in an adverse effect on operations to intersections in the project area and is consistent with the *Morgan Hill 2035 General Plan* goals and policies. However, City staff ultimately determines the need for traffic studies for new developments.

Monterey-Madrone Affordable Housing Development

Technical Appendices

May 6, 2021

Appendix A

Volume Summary

Intersection Number: 1
Traffix Node Number: 1324
Intersection Name: Monterey Road and Madrone Parkway
Peak Hour: AM
Count Date: 2/28/19

	Movements												
	North Approach			East Approach			South Approach			West Approach			Int.
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing	**0**	**568**	**119**	**209**	**0**	**2**	**18**	**1260**	**0**	**0**	**0**	**0**	**2,176**
Project Trips	0	0	1	0	0	21	1	6	0	0	0	0	29
Existing Plus Project	**0**	**568**	**120**	**209**	**0**	**23**	**19**	**1266**	**0**	**0**	**0**	**0**	**2,205**
2015 Model	0	875	74	50	0	6	39	1288	0	0	0	0	2,332
2025 without Project Model	0	1126	94	136	0	8	46	1589	0	0	0	0	2,999
2025 Cumulative without Project	**0**	**819**	**139**	**295**	**0**	**4**	**25**	**1561**	**0**	**0**	**0**	**0**	**2,843**
2025 Cumulative with Project	**0**	**819**	**140**	**295**	**0**	**25**	**26**	**1567**	**0**	**0**	**0**	**0**	**2,872**

Intersection Number: 2
Traffix Node Number: 101
Intersection Name: Monterey Road and Cochrane Road
Peak Hour: AM
Count Date: 5/8/18

	Movements												
	North Approach			East Approach			South Approach			West Approach			Int.
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing	**44**	**221**	**278**	**582**	**59**	**141**	**320**	**623**	**110**	**6**	**65**	**87**	**2,536**
Project Trips	0	14	7	3	0	0	0	5	0	0	0	0	29
Existing Plus Project	**44**	**235**	**285**	**585**	**59**	**141**	**320**	**628**	**110**	**6**	**65**	**87**	**2,565**
2015 Model	1	331	556	906	2	142	263	462	1	0	1	0	2,665
2025 without Project Model	1	380	756	982	2	167	254	684	1	0	1	1	3,229
2025 Cumulative without Project	**44**	**270**	**478**	**658**	**59**	**166**	**320**	**845**	**110**	**6**	**65**	**88**	**3,109**
2025 Cumulative with Project	**44**	**284**	**485**	**661**	**59**	**166**	**320**	**850**	**110**	**6**	**65**	**88**	**3,138**

Intersection Number: 3
Traffix Node Number: 106
Intersection Name: Madrone Parkway/Cochrane Plaza and Cochrane Road
Peak Hour: AM
Count Date: 5/8/18

	Movements												
	North Approach			East Approach			South Approach			West Approach			Int.
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing	**16**	**16**	**206**	**347**	**729**	**119**	**23**	**16**	**11**	**5**	**773**	**95**	**2,356**
Project Trips	0	0	38	13	0	0	0	0	0	0	0	0	51
Existing Plus Project	**16**	**16**	**244**	**360**	**729**	**119**	**23**	**16**	**11**	**5**	**773**	**95**	**2,407**
2015 Model	19	2	84	214	1025	174	82	2	0	0	894	78	2,574
2025 without Project Model	25	2	97	313	1078	164	81	1	0	0	1063	95	2,919
2025 Cumulative without Project	**22**	**16**	**219**	**446**	**782**	**119**	**23**	**16**	**11**	**5**	**942**	**112**	**2,713**
2025 Cumulative with Project	**22**	**16**	**257**	**459**	**782**	**119**	**23**	**16**	**11**	**5**	**942**	**112**	**2,764**

Intersection Number: 4
Traffix Node Number: 107
Intersection Name: US 101 Southbound Ramps and Cochrane Road
Peak Hour: AM
Count Date: 5/8/18

	Movements												
	North Approach			East Approach			South Approach			West Approach			Int.
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing	**725**	**1**	**185**	**108**	**528**	**0**	**0**	**0**	**0**	**238**	**810**	**0**	**2,595**
Project Trips	10	0	0	0	4	0	0	0	0	7	31	0	52
Existing Plus Project	**735**	**1**	**185**	**108**	**532**	**0**	**0**	**0**	**0**	**245**	**841**	**0**	**2,647**
2015 Model	438	0	182	157	976	0	0	0	0	234	825	0	2,812
2025 without Project Model	508	0	250	193	1048	0	0	0	0	253	988	0	3,240
2025 Cumulative without Project	**795**	**1**	**253**	**144**	**600**	**0**	**0**	**0**	**0**	**257**	**973**	**0**	**3,023**
2025 Cumulative with Project	**805**	**1**	**253**	**144**	**604**	**0**	**0**	**0**	**0**	**264**	**1004**	**0**	**3,075**

Intersection Number: 5
Traffix Node Number: 108
Intersection Name: US 101 Northbound Ramps and Cochrane Road
Peak Hour: AM
Count Date: 5/8/18

	Movements												
	North Approach			East Approach			South Approach			West Approach			Int.
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing	**0**	**0**	**0**	**464**	**382**	**0**	**117**	**0**	**260**	**0**	**405**	**0**	**1,628**
Project Trips	0	0	0	0	1	0	0	0	2	0	3	28	34
Existing Plus Project	**0**	**0**	**0**	**464**	**383**	**0**	**117**	**0**	**262**	**0**	**408**	**28**	**1,662**
2015 Model	0	0	0	427	593	0	192	0	540	0	440	0	2,192
2025 without Project Model	0	0	0	558	801	0	204	0	441	0	656	0	2,660
2025 Cumulative without Project	**0**	**0**	**0**	**595**	**590**	**0**	**129**	**0**	**260**	**0**	**621**	**0**	**2,195**
2025 Cumulative with Project	**0**	**0**	**0**	**595**	**591**	**0**	**129**	**0**	**262**	**0**	**624**	**28**	**2,229**

Intersection Number: 1
Traffix Node Number: 1324
Intersection Name: Monterey Road and Madrone Parkway
Peak Hour: PM
Count Date: 2/28/19

	Movements												
	North Approach			East Approach			South Approach			West Approach			Int.
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing	**0**	**2032**	**274**	**143**	**0**	**17**	**15**	**408**	**0**	**0**	**0**	**0**	**2,889**
Project Trips	0	0	3	0	0	14	4	18	0	0	0	0	39
Existing Plus Project	**0**	**2032**	**277**	**143**	**0**	**31**	**19**	**426**	**0**	**0**	**0**	**0**	**2,928**
2015 Model	0	1347	71	80	0	49	18	721	0	0	0	0	2,286
2025 without Project Model	0	1612	142	101	0	53	23	969	0	0	0	0	2,900
2025 Cumulative without Project	**0**	**2297**	**345**	**164**	**0**	**21**	**20**	**656**	**0**	**0**	**0**	**0**	**3,503**
2025 Cumulative with Project	**0**	**2297**	**348**	**164**	**0**	**35**	**24**	**674**	**0**	**0**	**0**	**0**	**3,542**

Intersection Number: 2
Traffix Node Number: 101
Intersection Name: Monterey Road and Cochrane Road
Peak Hour: PM
Count Date: 5/8/18

	Movements												
	North Approach			East Approach			South Approach			West Approach			Int.
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing	**111**	**783**	**1074**	**180**	**50**	**243**	**198**	**157**	**36**	**24**	**77**	**26**	**2,959**
Project Trips	0	9	5	8	0	0	0	14	0	0	0	0	36
Existing Plus Project	**111**	**792**	**1079**	**188**	**50**	**243**	**198**	**171**	**36**	**24**	**77**	**26**	**2,995**
2015 Model	1	629	813	621	2	227	155	130	1	2	3	1	2,585
2025 without Project Model	1	738	963	819	2	298	181	178	1	2	3	1	3,187
2025 Cumulative without Project	**111**	**892**	**1224**	**378**	**50**	**314**	**224**	**205**	**36**	**24**	**77**	**26**	**3,561**
2025 Cumulative with Project	**111**	**901**	**1229**	**386**	**50**	**314**	**224**	**219**	**36**	**24**	**77**	**26**	**3,597**

Intersection Number: 3
Traffix Node Number: 106
Intersection Name: Madrone Parkway/Cochrane Plaza and Cochrane Road
Peak Hour: PM
Count Date: 5/8/18

	Movements												
	North Approach			East Approach			South Approach			West Approach			Int.
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing	**69**	**35**	**428**	**196**	**627**	**237**	**94**	**30**	**36**	**22**	**1212**	**114**	**3,100**
Project Trips	0	0	26	40	0	0	0	0	0	0	0	0	66
Existing Plus Project	**69**	**35**	**454**	**236**	**627**	**237**	**94**	**30**	**36**	**22**	**1212**	**114**	**3,166**
2015 Model	97	7	270	110	714	117	229	7	0	0	946	59	2,556
2025 without Project Model	116	6	357	128	925	120	220	6	0	0	1073	69	3,020
2025 Cumulative without Project	**88**	**35**	**515**	**214**	**838**	**240**	**94**	**30**	**36**	**22**	**1339**	**124**	**3,575**
2025 Cumulative with Project	**88**	**35**	**541**	**254**	**838**	**240**	**94**	**30**	**36**	**22**	**1339**	**124**	**3,641**

Intersection Number: 4
Traffix Node Number: 107
Intersection Name: US 101 Southbound Ramps and Cochrane Road
Peak Hour: PM
Count Date: 5/8/18

	Movements												
	North Approach			East Approach			South Approach			West Approach			Int.
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing	**510**	**1**	**300**	**157**	**635**	**0**	**0**	**0**	**0**	**741**	**1046**	**0**	**3,390**
Project Trips	29	0	0	0	10	0	0	0	0	5	21	0	65
Existing Plus Project	**539**	**1**	**300**	**157**	**645**	**0**	**0**	**0**	**0**	**746**	**1067**	**0**	**3,455**
2015 Model	403	0	369	271	537	0	0	0	0	492	953	0	3,025
2025 without Project Model	462	0	499	268	710	0	0	0	0	463	1188	0	3,590
2025 Cumulative without Project	**569**	**1**	**430**	**157**	**808**	**0**	**0**	**0**	**0**	**741**	**1281**	**0**	**3,987**
2025 Cumulative with Project	**598**	**1**	**430**	**157**	**818**	**0**	**0**	**0**	**0**	**746**	**1302**	**0**	**4,052**

Intersection Number: 5
Traffix Node Number: 108
Intersection Name: US 101 Northbound Ramps and Cochrane Road
Peak Hour: PM
Count Date: 5/8/18

	Movements												
	North Approach			East Approach			South Approach			West Approach			Int.
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing	**0**	**0**	**0**	**208**	**499**	**0**	**230**	**0**	**315**	**0**	**832**	**0**	**2,084**
Project Trips	0	0	0	0	3	0	0	0	7	0	2	19	31
Existing Plus Project	**0**	**0**	**0**	**208**	**502**	**0**	**230**	**0**	**322**	**0**	**834**	**19**	**2,115**
2015 Model	0	0	0	208	563	0	219	0	245	0	877	0	2,112
2025 without Project Model	0	0	0	286	723	0	274	0	255	0	1187	0	2,725
2025 Cumulative without Project	**0**	**0**	**0**	**286**	**659**	**0**	**285**	**0**	**325**	**0**	**1142**	**0**	**2,697**
2025 Cumulative with Project	**0**	**0**	**0**	**286**	**662**	**0**	**285**	**0**	**332**	**0**	**1144**	**19**	**2,728**

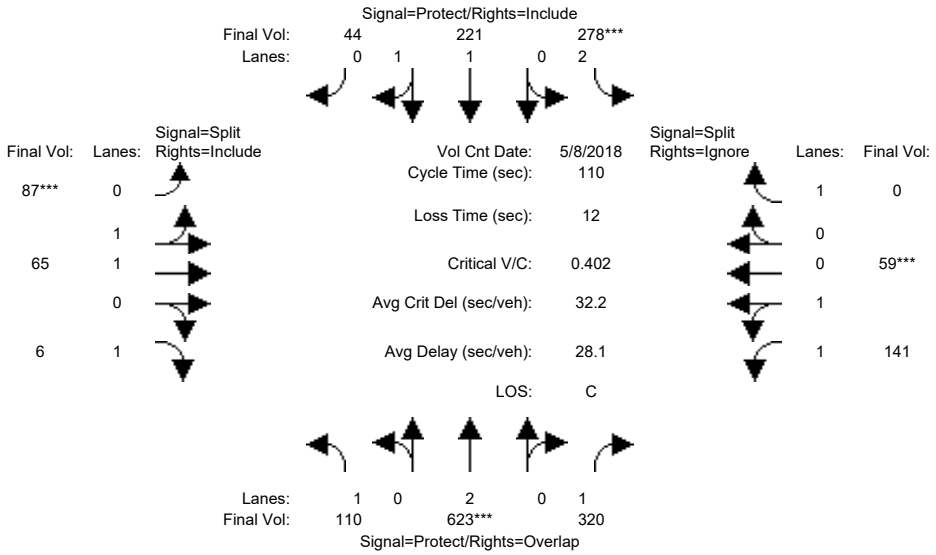
Appendix B

Level of Service Calculations

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #101: Monterey Road and Cochrane Road



Street Name:	Monterey Road						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	110	623	320	278	221	44	87	65	6	141	59	582
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	110	623	320	278	221	44	87	65	6	141	59	582
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	110	623	320	278	221	44	87	65	6	141	59	582
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	110	623	320	278	221	44	87	65	6	141	59	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	623	320	278	221	44	87	65	6	141	59	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	110	623	320	278	221	44	87	65	6	141	59	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	2.00	1.66	0.34	1.00	1.00	1.00	1.42	0.58	1.00
Final Sat.:	1750	3800	1750	3150	3085	614	1750	1900	1750	2503	1047	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.16	0.18	0.09	0.07	0.07	0.05	0.03	0.00	0.06	0.06	0.00
Crit Moves:		****		****			****				****	
Green Time:	28.4	44.8	60.3	24.1	40.6	40.6	13.6	13.6	13.6	15.4	15.4	0.0
Volume/Cap:	0.24	0.40	0.33	0.40	0.19	0.19	0.40	0.28	0.03	0.40	0.40	0.00
Delay/Veh:	32.6	23.3	14.0	37.1	23.7	23.7	45.2	44.0	42.4	43.6	43.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.6	23.3	14.0	37.1	23.7	23.7	45.2	44.0	42.4	43.6	43.6	0.0
LOS by Move:	C	C	B	D	C	C	D	D	D	D	D	A
HCM2k95thQ:	6	14	12	9	6	6	7	4	0	6	6	0

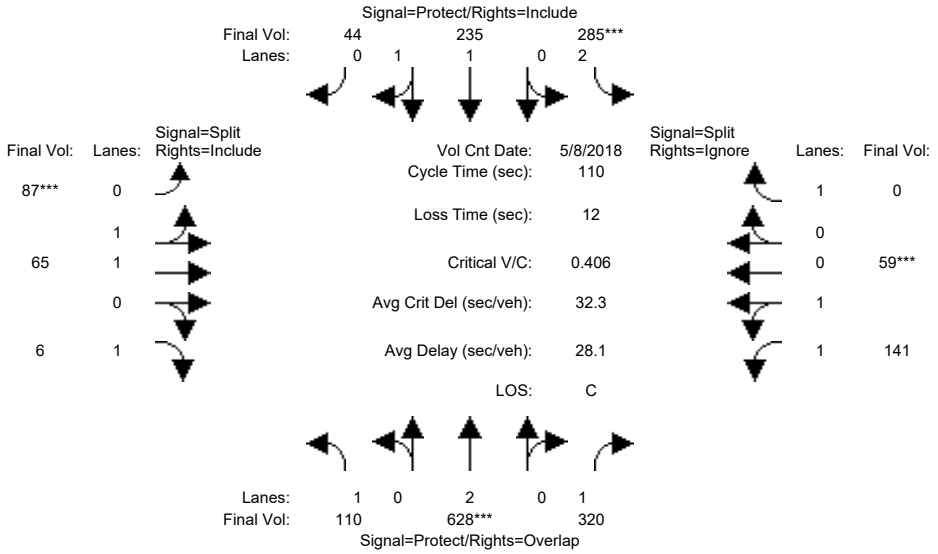
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #101: Monterey Road and Cochrane Road



Street Name:	Monterey Road						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	110	623	320	278	221	44	87	65	6	141	59	582
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	110	623	320	278	221	44	87	65	6	141	59	582
Added Vol:	0	5	0	7	14	0	0	0	0	0	0	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	110	628	320	285	235	44	87	65	6	141	59	585
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	110	628	320	285	235	44	87	65	6	141	59	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	628	320	285	235	44	87	65	6	141	59	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	110	628	320	285	235	44	87	65	6	141	59	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	2.00	1.68	0.32	1.00	1.00	1.00	1.42	0.58	1.00
Final Sat.:	1750	3800	1750	3150	3116	583	1750	1900	1750	2503	1047	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.17	0.18	0.09	0.08	0.08	0.05	0.03	0.00	0.06	0.06	0.00
Crit Moves:		****		****			****				****	
Green Time:	28.5	44.8	60.0	24.5	40.7	40.7	13.5	13.5	13.5	15.3	15.3	0.0
Volume/Cap:	0.24	0.41	0.34	0.41	0.20	0.20	0.41	0.28	0.03	0.41	0.41	0.00
Delay/Veh:	32.5	23.3	14.1	36.9	23.7	23.7	45.3	44.1	42.6	43.8	43.8	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.5	23.3	14.1	36.9	23.7	23.7	45.3	44.1	42.6	43.8	43.8	0.0
LOS by Move:	C	C	B	D	C	C	D	D	D	D	D	A
HCM2k95thQ:	6	14	12	9	6	6	7	4	0	6	6	0

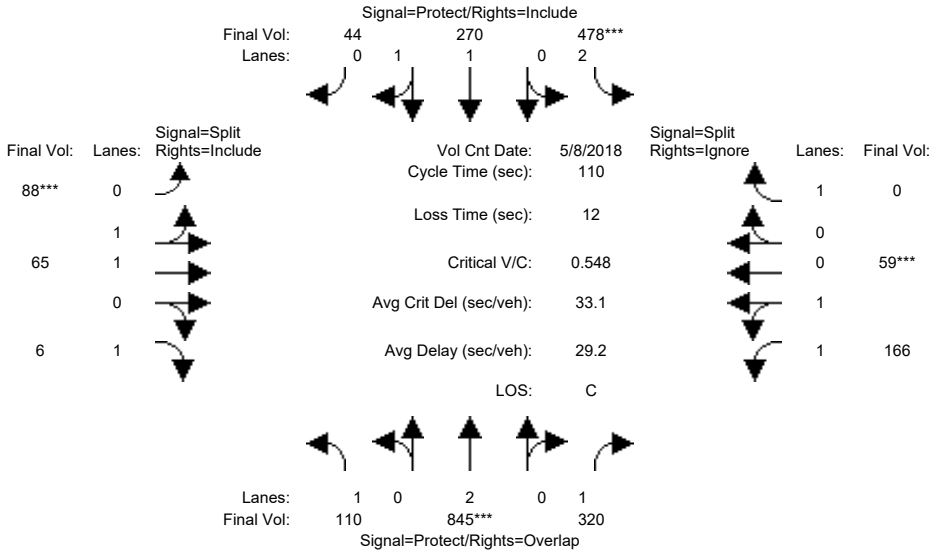
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative without Project AM

Intersection #101: Monterey Road and Cochrane Road



Street Name:	Monterey Road						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	110	845	320	478	270	44	88	65	6	166	59	658
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	110	845	320	478	270	44	88	65	6	166	59	658
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	110	845	320	478	270	44	88	65	6	166	59	658
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	110	845	320	478	270	44	88	65	6	166	59	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	845	320	478	270	44	88	65	6	166	59	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	110	845	320	478	270	44	88	65	6	166	59	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	2.00	1.71	0.29	1.00	1.00	1.00	1.48	0.52	1.00
Final Sat.:	1750	3800	1750	3150	3181	518	1750	1900	1750	2619	931	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.22	0.18	0.15	0.08	0.08	0.05	0.03	0.00	0.06	0.06	0.00
Crit Moves:		****		****			****				****	
Green Time:	30.9	44.7	57.4	30.5	44.2	44.2	10.1	10.1	10.1	12.7	12.7	0.0
Volume/Cap:	0.22	0.55	0.35	0.55	0.21	0.21	0.55	0.37	0.04	0.55	0.55	0.00
Delay/Veh:	30.5	25.4	15.6	34.6	21.6	21.6	50.0	47.5	45.6	47.5	47.5	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	30.5	25.4	15.6	34.6	21.6	21.6	50.0	47.5	45.6	47.5	47.5	0.0
LOS by Move:	C	C	B	C	C	C	D	D	D	D	D	A
HCM2k95thQ:	6	20	13	15	7	7	8	5	0	8	8	0

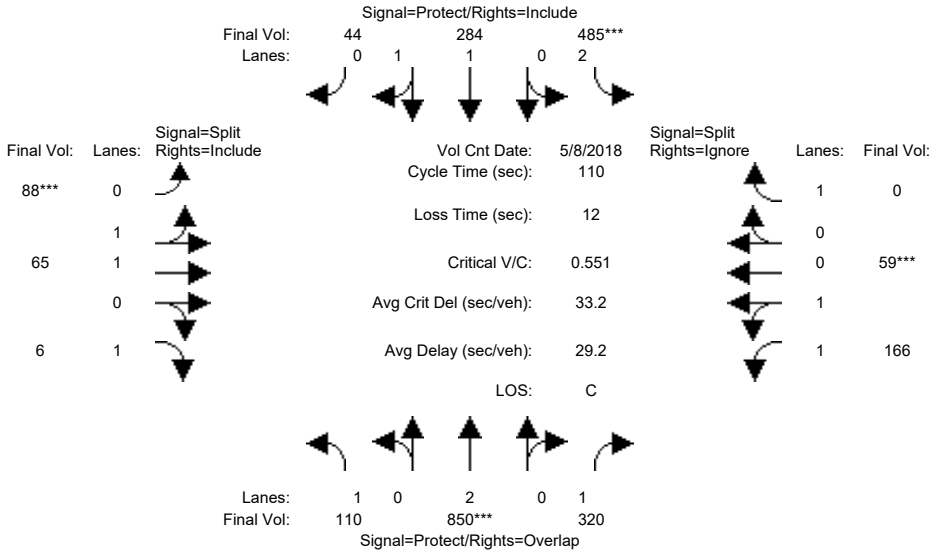
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative with Project AM

Intersection #101: Monterey Road and Cochrane Road



Street Name:	Monterey Road						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	110	845	320	478	270	44	88	65	6	166	59	658
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	110	845	320	478	270	44	88	65	6	166	59	658
Added Vol:	0	5	0	7	14	0	0	0	0	0	0	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	110	850	320	485	284	44	88	65	6	166	59	661
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	110	850	320	485	284	44	88	65	6	166	59	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	850	320	485	284	44	88	65	6	166	59	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	110	850	320	485	284	44	88	65	6	166	59	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	2.00	1.72	0.28	1.00	1.00	1.00	1.48	0.52	1.00
Final Sat.:	1750	3800	1750	3150	3203	496	1750	1900	1750	2619	931	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.22	0.18	0.15	0.09	0.09	0.05	0.03	0.00	0.06	0.06	0.00
Crit Moves:		****		****			****				****	
Green Time:	31.0	44.6	57.3	30.7	44.3	44.3	10.0	10.0	10.0	12.6	12.6	0.0
Volume/Cap:	0.22	0.55	0.35	0.55	0.22	0.22	0.55	0.38	0.04	0.55	0.55	0.00
Delay/Veh:	30.5	25.5	15.7	34.5	21.6	21.6	50.2	47.6	45.7	47.6	47.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	30.5	25.5	15.7	34.5	21.6	21.6	50.2	47.6	45.7	47.6	47.6	0.0
LOS by Move:	C	C	B	C	C	C	D	D	D	D	D	A
HCM2k95thQ:	6	20	13	15	7	7	8	5	0	8	8	0

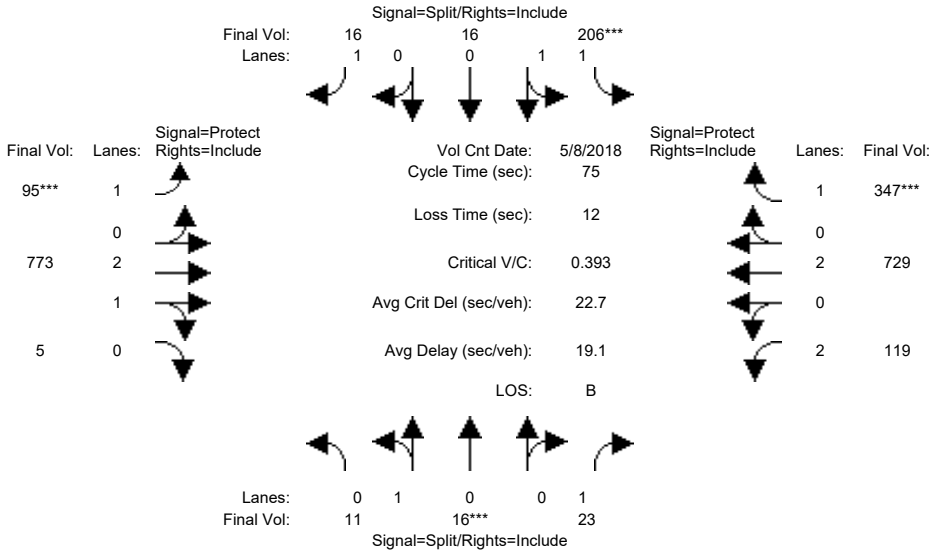
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #106: Madrone Parkway/Cochrane Plaza and Cochrane Road



Street Name:	Madrone Parkway/Cochrane Plaza						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	11	16	23	206	16	16	95	773	5	119	729	347
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	16	23	206	16	16	95	773	5	119	729	347
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	16	23	206	16	16	95	773	5	119	729	347
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	16	23	206	16	16	95	773	5	119	729	347
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	16	23	206	16	16	95	773	5	119	729	347
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	16	23	206	16	16	95	773	5	119	729	347
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.93	0.95	0.92	0.92	0.98	0.95	0.83	1.00	0.92
Lanes:	0.41	0.59	1.00	1.86	0.14	1.00	1.00	2.98	0.02	2.00	2.00	1.00
Final Sat.:	733	1067	1750	3294	256	1750	1750	5564	36	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.01	0.06	0.06	0.01	0.05	0.14	0.14	0.04	0.19	0.20
Crit Moves:		****		****			****					****
Green Time:	10.0	10.0	10.0	10.5	10.5	10.5	9.1	25.4	25.4	17.1	33.4	33.4
Volume/Cap:	0.11	0.11	0.10	0.45	0.45	0.07	0.45	0.41	0.41	0.17	0.43	0.45
Delay/Veh:	28.8	28.8	28.7	30.2	30.2	28.1	32.1	19.2	19.2	23.4	14.5	14.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.8	28.8	28.7	30.2	30.2	28.1	32.1	19.2	19.2	23.4	14.5	14.8
LOS by Move:	C	C	C	C	C	C	C	B	B	C	B	B
HCM2k95thQ:	1	1	1	6	6	1	4	9	9	3	11	11

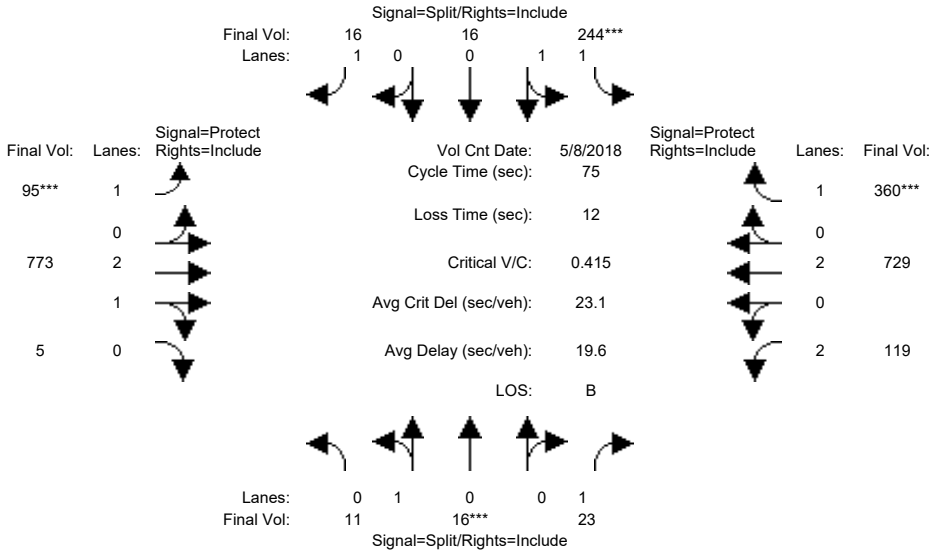
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #106: Madrone Parkway/Cochrane Plaza and Cochrane Road



Street Name:	Madrone Parkway/Cochrane Plaza						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	11	16	23	206	16	16	95	773	5	119	729	347
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	16	23	206	16	16	95	773	5	119	729	347
Added Vol:	0	0	0	38	0	0	0	0	0	0	0	13
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	16	23	244	16	16	95	773	5	119	729	360
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	16	23	244	16	16	95	773	5	119	729	360
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	16	23	244	16	16	95	773	5	119	729	360
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	16	23	244	16	16	95	773	5	119	729	360
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.93	0.95	0.92	0.92	0.98	0.95	0.83	1.00	0.92
Lanes:	0.41	0.59	1.00	1.88	0.12	1.00	1.00	2.98	0.02	2.00	2.00	1.00
Final Sat.:	733	1067	1750	3331	218	1750	1750	5564	36	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.01	0.07	0.07	0.01	0.05	0.14	0.14	0.04	0.19	0.21
Crit Moves:		****		****			****					****
Green Time:	10.0	10.0	10.0	11.6	11.6	11.6	8.6	24.7	24.7	16.6	32.7	32.7
Volume/Cap:	0.11	0.11	0.10	0.47	0.47	0.06	0.47	0.42	0.42	0.17	0.44	0.47
Delay/Veh:	28.8	28.8	28.7	29.5	29.5	27.1	32.8	19.7	19.7	23.7	14.9	15.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.8	28.8	28.7	29.5	29.5	27.1	32.8	19.7	19.7	23.7	14.9	15.5
LOS by Move:	C	C	C	C	C	C	C	B	B	C	B	B
HCM2k95thQ:	1	1	1	7	7	1	4	9	9	3	11	12

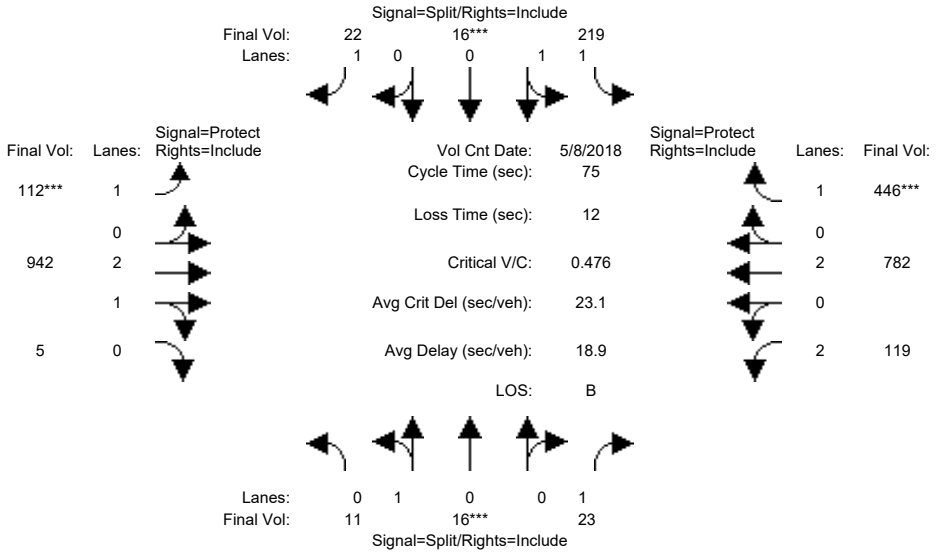
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative without Project AM

Intersection #106: Madrone Parkway/Cochrane Plaza and Cochrane Road



Street Name:	Madrone Parkway/Cochrane Plaza						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	11	16	23	219	16	22	112	942	5	119	782	446
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	16	23	219	16	22	112	942	5	119	782	446
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	16	23	219	16	22	112	942	5	119	782	446
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	16	23	219	16	22	112	942	5	119	782	446
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	16	23	219	16	22	112	942	5	119	782	446
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	16	23	219	16	22	112	942	5	119	782	446
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.93	0.95	0.92	0.92	0.98	0.95	0.83	1.00	0.92
Lanes:	0.41	0.59	1.00	1.87	0.13	1.00	1.00	2.98	0.02	2.00	2.00	1.00
Final Sat.:	733	1067	1750	3308	242	1750	1750	5570	30	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.01	0.07	0.07	0.01	0.06	0.17	0.17	0.04	0.21	0.25
Crit Moves:		****			****		****					****
Green Time:	10.0	10.0	10.0	10.0	10.0	10.0	8.6	27.7	27.7	15.3	34.4	34.4
Volume/Cap:	0.11	0.11	0.10	0.50	0.50	0.09	0.56	0.46	0.46	0.19	0.45	0.56
Delay/Veh:	28.8	28.8	28.7	31.0	31.0	28.7	34.8	18.1	18.1	24.8	14.0	15.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.8	28.8	28.7	31.0	31.0	28.7	34.8	18.1	18.1	24.8	14.0	15.6
LOS by Move:	C	C	C	C	C	C	C	B	B	C	B	B
HCM2k95thQ:	1	1	1	7	7	1	5	11	11	3	12	15

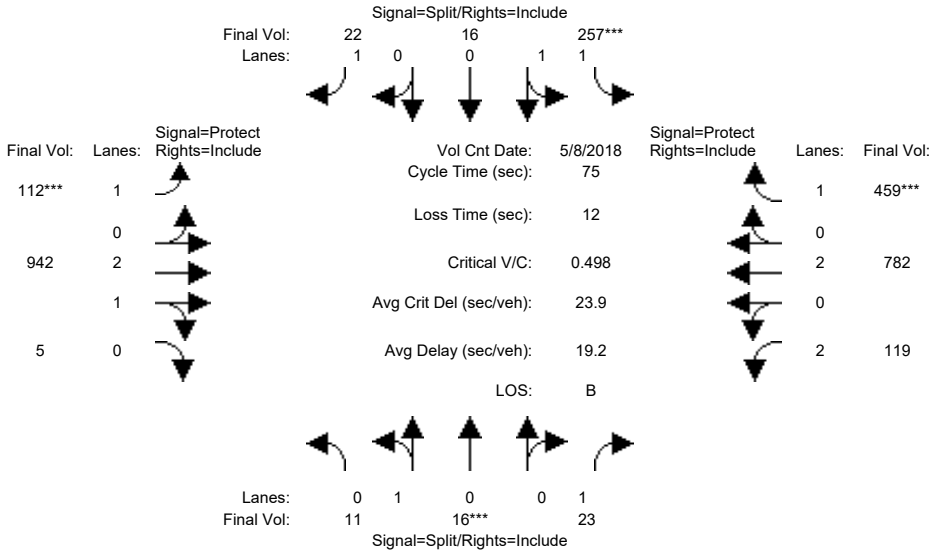
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative with Project AM

Intersection #106: Madrone Parkway/Cochrane Plaza and Cochrane Road



Street Name:	Madrone Parkway/Cochrane Plaza						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	11	16	23	219	16	22	112	942	5	119	782	446
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	16	23	219	16	22	112	942	5	119	782	446
Added Vol:	0	0	0	38	0	0	0	0	0	0	0	13
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	16	23	257	16	22	112	942	5	119	782	459
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	16	23	257	16	22	112	942	5	119	782	459
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	16	23	257	16	22	112	942	5	119	782	459
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	16	23	257	16	22	112	942	5	119	782	459
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.93	0.95	0.92	0.92	0.98	0.95	0.83	1.00	0.92
Lanes:	0.41	0.59	1.00	1.88	0.12	1.00	1.00	2.98	0.02	2.00	2.00	1.00
Final Sat.:	733	1067	1750	3342	208	1750	1750	5570	30	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.01	0.08	0.08	0.01	0.06	0.17	0.17	0.04	0.21	0.26
Crit Moves:		****		****			****					****
Green Time:	10.0	10.0	10.0	10.1	10.1	10.1	8.4	27.6	27.6	15.3	34.5	34.5
Volume/Cap:	0.11	0.11	0.10	0.57	0.57	0.09	0.57	0.46	0.46	0.19	0.45	0.57
Delay/Veh:	28.8	28.8	28.7	32.1	32.1	28.6	35.6	18.2	18.2	24.9	14.0	15.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.8	28.8	28.7	32.1	32.1	28.6	35.6	18.2	18.2	24.9	14.0	15.8
LOS by Move:	C	C	C	C	C	C	D	B	B	C	B	B
HCM2k95thQ:	1	1	1	8	8	1	5	11	11	3	12	16

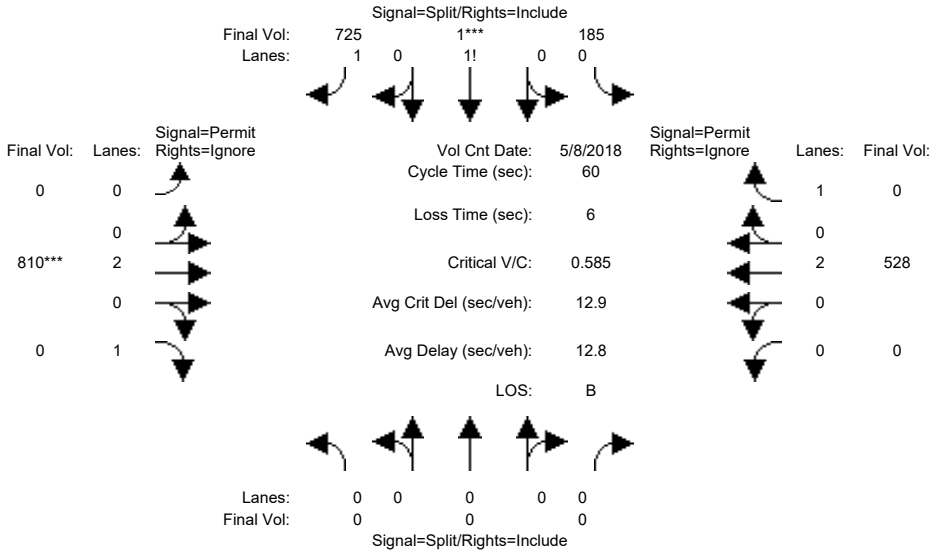
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #107: US 101 Southbound Ramps and Cochrane Road



Street Name:	US 101 Southbound Ramps						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	0	0	0	185	1	725	0	810	238	0	528	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	185	1	725	0	810	238	0	528	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	185	1	725	0	810	238	0	528	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	0	185	1	725	0	810	0	0	528	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	185	1	725	0	810	0	0	528	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	0	185	1	725	0	810	0	0	528	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.33	0.01	1.66	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	0	0	0	590	3	2907	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.31	0.31	0.25	0.00	0.21	0.00	0.00	0.14	0.00
Crit Moves:					****			****				
Green Time:	0.0	0.0	0.0	32.1	32.1	32.1	0.0	21.9	0.0	0.0	21.9	0.0
Volume/Cap:	0.00	0.00	0.00	0.59	0.59	0.47	0.00	0.59	0.00	0.00	0.38	0.00
Delay/Veh:	0.0	0.0	0.0	10.0	10.0	8.8	0.0	16.1	0.0	0.0	14.3	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	10.0	10.0	8.8	0.0	16.1	0.0	0.0	14.3	0.0
LOS by Move:	A	A	A	A	A	A	A	B	A	A	B	A
HCM2k95thQ:	0	0	0	15	15	11	0	12	0	0	7	0

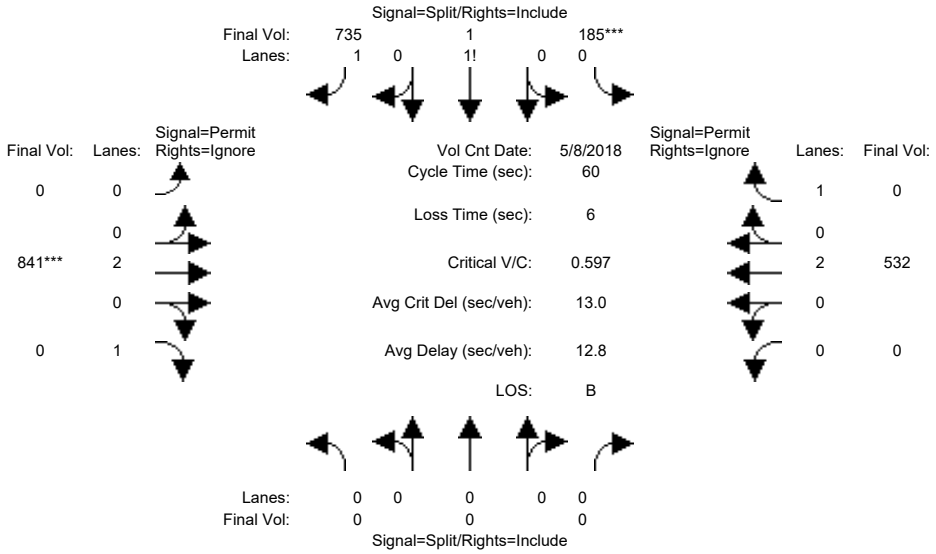
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #107: US 101 Southbound Ramps and Cochrane Road



Street Name:	US 101 Southbound Ramps						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	0	0	10	0	10	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	0	0	0	185	1	725	0	810	238	0	528	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	185	1	725	0	810	238	0	528	0
Added Vol:	0	0	0	0	0	10	0	31	7	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	185	1	735	0	841	245	0	532	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	0	185	1	735	0	841	0	0	532	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	185	1	735	0	841	0	0	532	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	0	185	1	735	0	841	0	0	532	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.33	0.01	1.66	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	0	0	0	585	3	2912	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.32	0.32	0.25	0.00	0.22	0.00	0.00	0.14	0.00
Crit Moves:				****				****				
Green Time:	0.0	0.0	0.0	31.8	31.8	31.8	0.0	22.2	0.0	0.0	22.2	0.0
Volume/Cap:	0.00	0.00	0.00	0.60	0.60	0.48	0.00	0.60	0.00	0.00	0.38	0.00
Delay/Veh:	0.0	0.0	0.0	10.4	10.4	9.1	0.0	16.0	0.0	0.0	14.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	10.4	10.4	9.1	0.0	16.0	0.0	0.0	14.0	0.0
LOS by Move:	A	A	A	B	B	A	A	B	A	A	B	A
HCM2k95thQ:	0	0	0	16	16	11	0	12	0	0	7	0

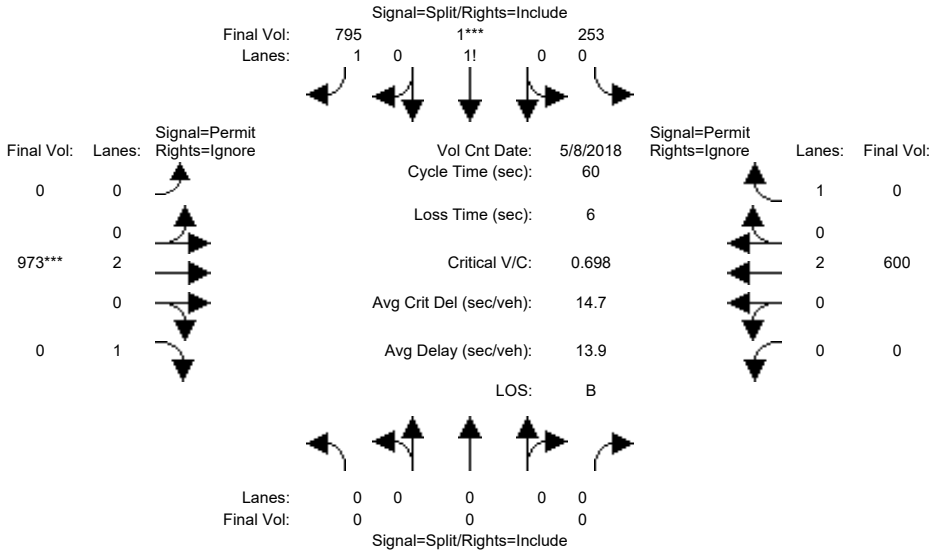
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative without Project AM

Intersection #107: US 101 Southbound Ramps and Cochrane Road



Street Name:	US 101 Southbound Ramps						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	0	0	0	253	1	795	0	973	257	0	600	144
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	253	1	795	0	973	257	0	600	144
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	253	1	795	0	973	257	0	600	144
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	0	253	1	795	0	973	0	0	600	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	253	1	795	0	973	0	0	600	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	0	253	1	795	0	973	0	0	600	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.38	0.01	1.61	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	0	0	0	680	3	2818	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.37	0.37	0.28	0.00	0.26	0.00	0.00	0.16	0.00
Crit Moves:					****			****				
Green Time:	0.0	0.0	0.0	32.0	32.0	32.0	0.0	22.0	0.0	0.0	22.0	0.0
Volume/Cap:	0.00	0.00	0.00	0.70	0.70	0.53	0.00	0.70	0.00	0.00	0.43	0.00
Delay/Veh:	0.0	0.0	0.0	11.9	11.9	9.4	0.0	17.8	0.0	0.0	14.5	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	11.9	11.9	9.4	0.0	17.8	0.0	0.0	14.5	0.0
LOS by Move:	A	A	A	B	B	A	A	B	A	A	B	A
HCM2k95thQ:	0	0	0	20	20	13	0	15	0	0	8	0

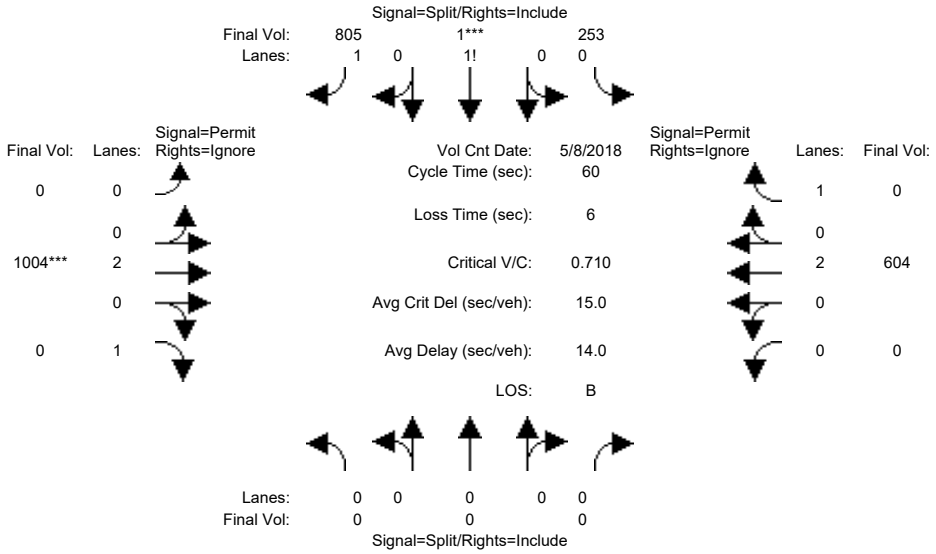
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative with Project AM

Intersection #107: US 101 Southbound Ramps and Cochrane Road



Street Name:	US 101 Southbound Ramps						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	0	0	10	0	10	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	0	0	0	253	1	795	0	973	257	0	600	144
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	253	1	795	0	973	257	0	600	144
Added Vol:	0	0	0	0	0	10	0	31	7	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	253	1	805	0	1004	264	0	604	144
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	0	253	1	805	0	1004	0	0	604	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	253	1	805	0	1004	0	0	604	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	0	253	1	805	0	1004	0	0	604	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.38	0.01	1.61	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	0	0	0	674	3	2823	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.38	0.38	0.29	0.00	0.26	0.00	0.00	0.16	0.00
Crit Moves:					****			****				
Green Time:	0.0	0.0	0.0	31.7	31.7	31.7	0.0	22.3	0.0	0.0	22.3	0.0
Volume/Cap:	0.00	0.00	0.00	0.71	0.71	0.54	0.00	0.71	0.00	0.00	0.43	0.00
Delay/Veh:	0.0	0.0	0.0	12.3	12.3	9.7	0.0	17.8	0.0	0.0	14.3	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	12.3	12.3	9.7	0.0	17.8	0.0	0.0	14.3	0.0
LOS by Move:	A	A	A	B	B	A	A	B	A	A	B	A
HCM2k95thQ:	0	0	0	21	21	14	0	15	0	0	8	0

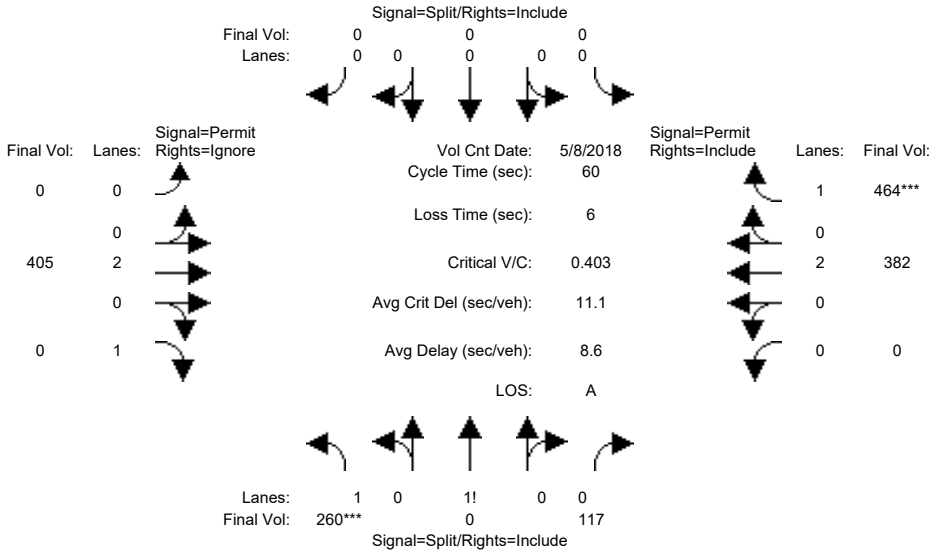
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #108: US 101 Northbound Ramps and Cochrane Road



Street Name:	US 101 Northbound Ramps						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	260	0	117	0	0	0	0	405	0	0	382	464
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	260	0	117	0	0	0	0	405	0	0	382	464
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	260	0	117	0	0	0	0	405	0	0	382	464
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	260	0	117	0	0	0	0	405	0	0	382	464
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	260	0	117	0	0	0	0	405	0	0	382	464
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	260	0	117	0	0	0	0	405	0	0	382	464
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.53	0.00	0.47	0.00	0.00	0.00	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	2671	0	829	0	0	0	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.14	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.10	0.27
Crit Moves:	****											****
Green Time:	18.8	0.0	18.8	0.0	0.0	0.0	0.0	35.2	0.0	0.0	35.2	35.2
Volume/Cap:	0.31	0.00	0.45	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.17	0.45
Delay/Veh:	15.8	0.0	16.9	0.0	0.0	0.0	0.0	5.8	0.0	0.0	5.7	7.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	15.8	0.0	16.9	0.0	0.0	0.0	0.0	5.8	0.0	0.0	5.7	7.3
LOS by Move:	B	A	B	A	A	A	A	A	A	A	A	A
HCM2k95thQ:	6	0	9	0	0	0	0	3	0	0	3	11

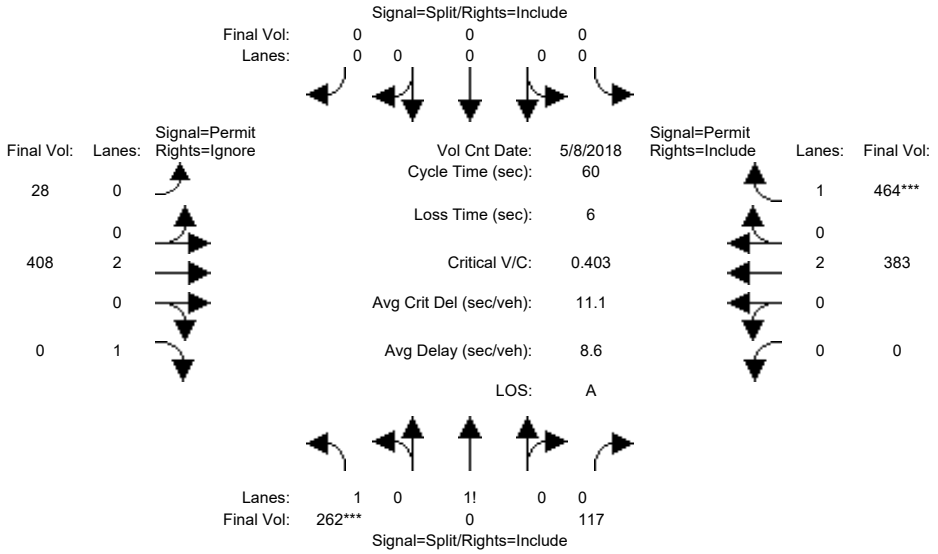
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #108: US 101 Northbound Ramps and Cochrane Road



Street Name:	US 101 Northbound Ramps						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	260	0	117	0	0	0	0	405	0	0	382	464
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	260	0	117	0	0	0	0	405	0	0	382	464
Added Vol:	2	0	0	0	0	0	28	3	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	262	0	117	0	0	0	28	408	0	0	383	464
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	262	0	117	0	0	0	28	408	0	0	383	464
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	262	0	117	0	0	0	28	408	0	0	383	464
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	262	0	117	0	0	0	28	408	0	0	383	464
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.98	0.92	0.92	1.00	0.92
Lanes:	1.53	0.00	0.47	0.00	0.00	0.00	0.13	1.87	1.00	0.00	2.00	1.00
Final Sat.:	2674	0	826	0	0	0	238	3462	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.14	0.00	0.00	0.00	0.12	0.12	0.00	0.00	0.10	0.27
Crit Moves:	****											****
Green Time:	18.8	0.0	18.8	0.0	0.0	0.0	35.2	35.2	0.0	0.0	35.2	35.2
Volume/Cap:	0.31	0.00	0.45	0.00	0.00	0.00	0.20	0.20	0.00	0.00	0.17	0.45
Delay/Veh:	15.8	0.0	16.9	0.0	0.0	0.0	5.9	5.9	0.0	0.0	5.7	7.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	15.8	0.0	16.9	0.0	0.0	0.0	5.9	5.9	0.0	0.0	5.7	7.3
LOS by Move:	B	A	B	A	A	A	A	A	A	A	A	A
HCM2k95thQ:	6	0	9	0	0	0	4	4	0	0	3	11

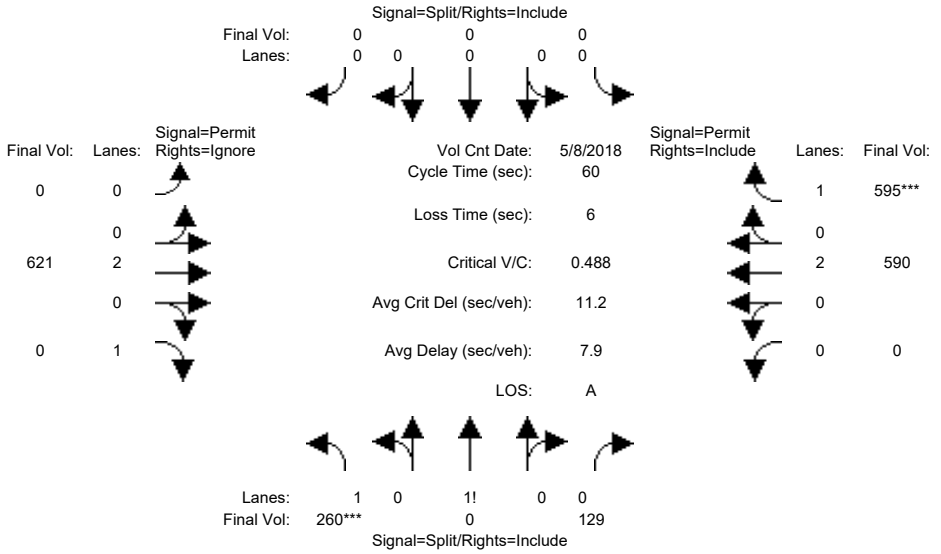
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative without Project AM

Intersection #108: US 101 Northbound Ramps and Cochrane Road



Street Name:	US 101 Northbound Ramps						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	260	0	129	0	0	0	0	621	0	0	590	595
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	260	0	129	0	0	0	0	621	0	0	590	595
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	260	0	129	0	0	0	0	621	0	0	590	595
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	260	0	129	0	0	0	0	621	0	0	590	595
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	260	0	129	0	0	0	0	621	0	0	590	595
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	260	0	129	0	0	0	0	621	0	0	590	595
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.50	0.00	0.50	0.00	0.00	0.00	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	2628	0	872	0	0	0	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.15	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.16	0.34
Crit Moves:	****											****
Green Time:	16.4	0.0	16.4	0.0	0.0	0.0	0.0	37.6	0.0	0.0	37.6	37.6
Volume/Cap:	0.36	0.00	0.54	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.25	0.54
Delay/Veh:	17.8	0.0	19.5	0.0	0.0	0.0	0.0	5.0	0.0	0.0	5.0	6.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	17.8	0.0	19.5	0.0	0.0	0.0	0.0	5.0	0.0	0.0	5.0	6.9
LOS by Move:	B	A	B	A	A	A	A	A	A	A	A	A
HCM2k95thQ:	6	0	10	0	0	0	0	5	0	0	5	14

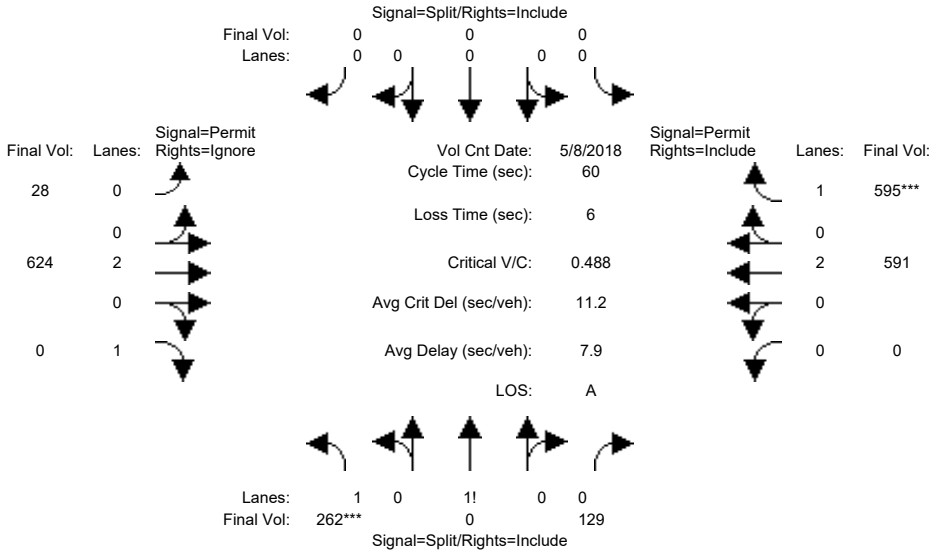
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative with Project AM

Intersection #108: US 101 Northbound Ramps and Cochrane Road



Street Name:	US 101 Northbound Ramps						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	260	0	129	0	0	0	0	621	0	0	590	595
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	260	0	129	0	0	0	0	621	0	0	590	595
Added Vol:	2	0	0	0	0	0	28	3	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	262	0	129	0	0	0	28	624	0	0	591	595
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	262	0	129	0	0	0	28	624	0	0	591	595
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	262	0	129	0	0	0	28	624	0	0	591	595
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	262	0	129	0	0	0	28	624	0	0	591	595
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.97	0.92	0.92	1.00	0.92
Lanes:	1.50	0.00	0.50	0.00	0.00	0.00	0.09	1.91	1.00	0.00	2.00	1.00
Final Sat.:	2632	0	868	0	0	0	159	3541	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.15	0.00	0.00	0.00	0.18	0.18	0.00	0.00	0.16	0.34
Crit Moves:	****											****
Green Time:	16.4	0.0	16.4	0.0	0.0	0.0	37.6	37.6	0.0	0.0	37.6	37.6
Volume/Cap:	0.36	0.00	0.54	0.00	0.00	0.00	0.28	0.28	0.00	0.00	0.25	0.54
Delay/Veh:	17.8	0.0	19.4	0.0	0.0	0.0	5.2	5.2	0.0	0.0	5.0	6.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	17.8	0.0	19.4	0.0	0.0	0.0	5.2	5.2	0.0	0.0	5.0	6.9
LOS by Move:	B	A	B	A	A	A	A	A	A	A	A	A
HCM2k95thQ:	6	0	10	0	0	0	5	5	0	0	5	14

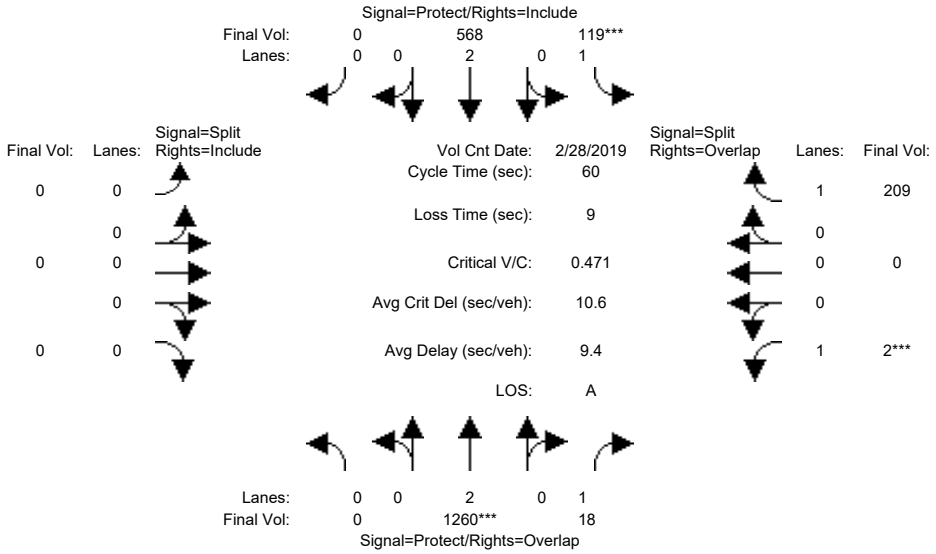
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #1324: Monterey Road and Madrone Parkway



Street Name:	Monterey Road						Madrone Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 28 Feb 2019 <<												
Base Vol:	0	1260	18	119	568	0	0	0	0	2	0	209
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1260	18	119	568	0	0	0	0	2	0	209
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1260	18	119	568	0	0	0	0	2	0	209
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1260	18	119	568	0	0	0	0	2	0	209
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1260	18	119	568	0	0	0	0	2	0	209
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1260	18	119	568	0	0	0	0	2	0	209
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3800	1750	1750	3800	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.33	0.01	0.07	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.12
Crit Moves:		****		****						****		
Green Time:	0.0	34.0	44.0	7.0	41.0	0.0	0.0	0.0	0.0	10.0	0.0	17.0
Volume/Cap:	0.00	0.59	0.01	0.58	0.22	0.00	0.00	0.00	0.00	0.01	0.00	0.42
Delay/Veh:	0.0	8.8	2.2	29.4	3.6	0.0	0.0	0.0	0.0	20.9	0.0	18.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	8.8	2.2	29.4	3.6	0.0	0.0	0.0	0.0	20.9	0.0	18.1
LOS by Move:	A	A	A	C	A	A	A	A	A	C	A	B
HCM2k95thQ:	0	14	0	5	4	0	0	0	0	0	0	8

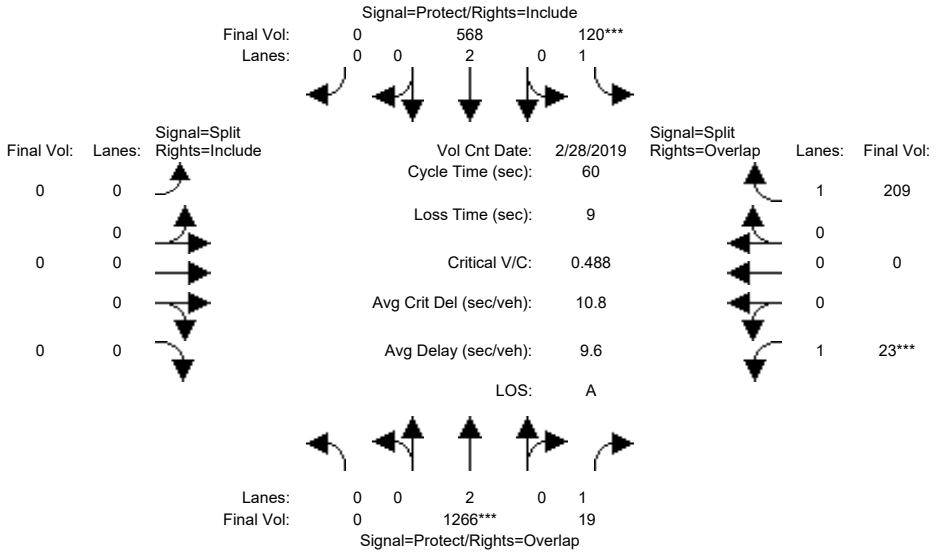
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #1324: Monterey Road and Madrone Parkway



Street Name:	Monterey Road						Madrone Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 28 Feb 2019 <<												
Base Vol:	0	1260	18	119	568	0	0	0	0	2	0	209
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1260	18	119	568	0	0	0	0	2	0	209
Added Vol:	0	6	1	1	0	0	0	0	0	21	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1266	19	120	568	0	0	0	0	23	0	209
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1266	19	120	568	0	0	0	0	23	0	209
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1266	19	120	568	0	0	0	0	23	0	209
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1266	19	120	568	0	0	0	0	23	0	209
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3800	1750	1750	3800	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.33	0.01	0.07	0.15	0.00	0.00	0.00	0.00	0.01	0.00	0.12
Crit Moves:		****		****						****		
Green Time:	0.0	34.0	44.0	7.0	41.0	0.0	0.0	0.0	0.0	10.0	0.0	17.0
Volume/Cap:	0.00	0.59	0.01	0.59	0.22	0.00	0.00	0.00	0.00	0.08	0.00	0.42
Delay/Veh:	0.0	8.9	2.2	29.6	3.6	0.0	0.0	0.0	0.0	21.2	0.0	18.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	8.9	2.2	29.6	3.6	0.0	0.0	0.0	0.0	21.2	0.0	18.1
LOS by Move:	A	A	A	C	A	A	A	A	A	C	A	B
HCM2k95thQ:	0	14	0	5	4	0	0	0	0	1	0	8

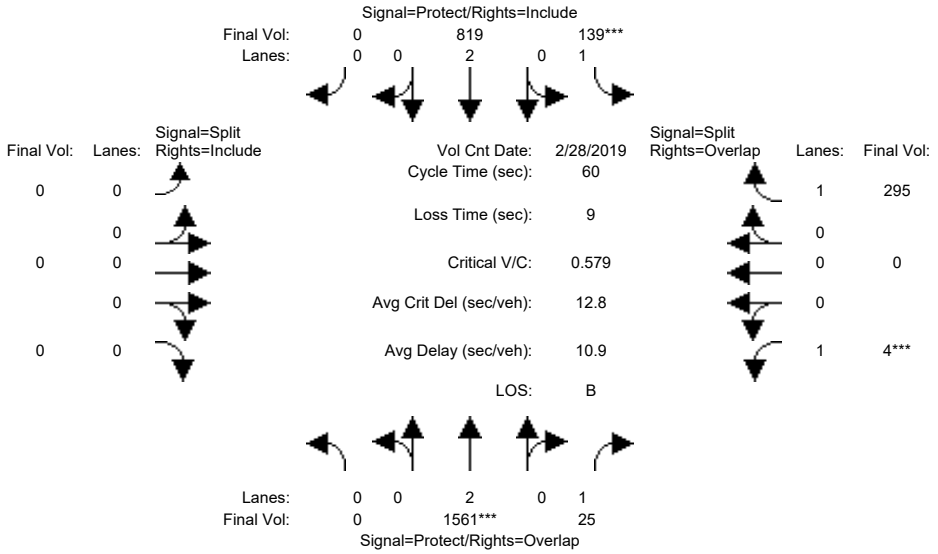
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative without Project AM

Intersection #1324: Monterey Road and Madrone Parkway



Street Name:	Monterey Road						Madrone Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 28 Feb 2019 <<												
Base Vol:	0	1561	25	139	819	0	0	0	0	4	0	295
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1561	25	139	819	0	0	0	0	4	0	295
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1561	25	139	819	0	0	0	0	4	0	295
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1561	25	139	819	0	0	0	0	4	0	295
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1561	25	139	819	0	0	0	0	4	0	295
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1561	25	139	819	0	0	0	0	4	0	295
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3800	1750	1750	3800	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.41	0.01	0.08	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.17
Crit Moves:		****		****						****		
Green Time:	0.0	34.0	44.0	7.0	41.0	0.0	0.0	0.0	0.0	10.0	0.0	17.0
Volume/Cap:	0.00	0.72	0.02	0.68	0.32	0.00	0.00	0.00	0.00	0.01	0.00	0.59
Delay/Veh:	0.0	10.8	2.2	34.4	3.9	0.0	0.0	0.0	0.0	20.9	0.0	20.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	10.8	2.2	34.4	3.9	0.0	0.0	0.0	0.0	20.9	0.0	20.5
LOS by Move:	A	B	A	C	A	A	A	A	A	C	A	C
HCM2k95thQ:	0	20	0	6	6	0	0	0	0	0	0	12

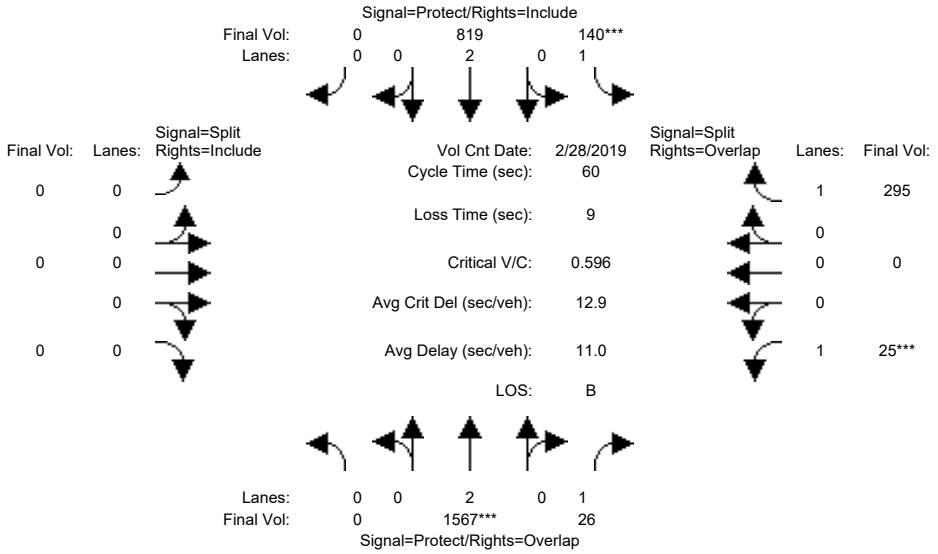
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative with Project AM

Intersection #1324: Monterey Road and Madrone Parkway



Street Name:	Monterey Road						Madrone Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 28 Feb 2019 <<												
Base Vol:	0	1561	25	139	819	0	0	0	0	4	0	295
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1561	25	139	819	0	0	0	0	4	0	295
Added Vol:	0	6	1	1	0	0	0	0	0	21	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1567	26	140	819	0	0	0	0	25	0	295
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1567	26	140	819	0	0	0	0	25	0	295
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1567	26	140	819	0	0	0	0	25	0	295
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1567	26	140	819	0	0	0	0	25	0	295
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3800	1750	1750	3800	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.41	0.01	0.08	0.22	0.00	0.00	0.00	0.00	0.01	0.00	0.17
Crit Moves:		****		****						****		
Green Time:	0.0	34.0	44.0	7.0	41.0	0.0	0.0	0.0	0.0	10.0	0.0	17.0
Volume/Cap:	0.00	0.73	0.02	0.69	0.32	0.00	0.00	0.00	0.00	0.09	0.00	0.59
Delay/Veh:	0.0	10.9	2.2	34.8	3.9	0.0	0.0	0.0	0.0	21.3	0.0	20.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	10.9	2.2	34.8	3.9	0.0	0.0	0.0	0.0	21.3	0.0	20.5
LOS by Move:	A	B	A	C	A	A	A	A	A	C	A	C
HCM2k95thQ:	0	20	0	6	6	0	0	0	0	1	0	12

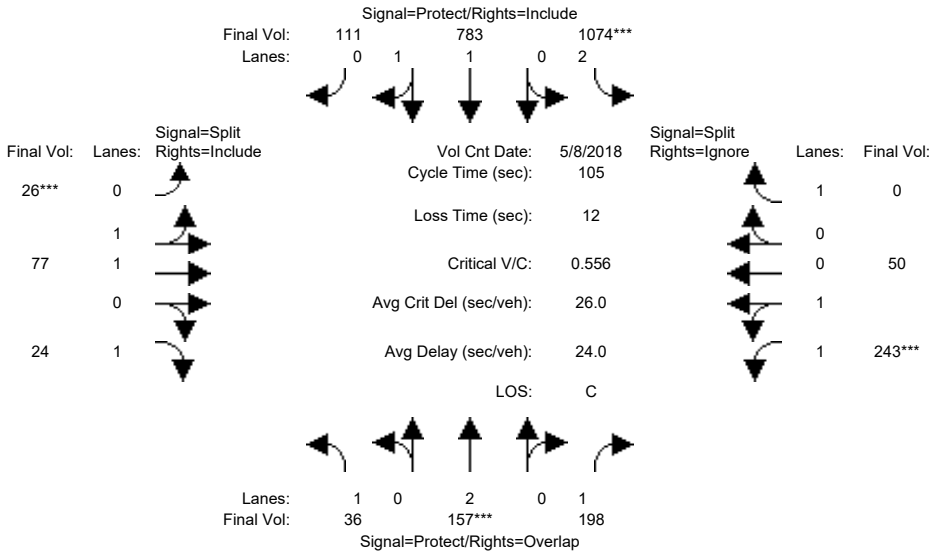
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #101: Monterey Road and Cochrane Road



Street Name:	Monterey Road						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	36	157	198	1074	783	111	26	77	24	243	50	180
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	36	157	198	1074	783	111	26	77	24	243	50	180
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	157	198	1074	783	111	26	77	24	243	50	180
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	36	157	198	1074	783	111	26	77	24	243	50	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	157	198	1074	783	111	26	77	24	243	50	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	36	157	198	1074	783	111	26	77	24	243	50	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.95	0.98	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	2.00	1.74	0.26	0.52	1.48	1.00	1.66	0.34	1.00
Final Sat.:	1750	3800	1750	3150	3240	459	934	2765	1750	2944	606	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.04	0.11	0.34	0.24	0.24	0.03	0.03	0.01	0.08	0.08	0.00
Crit Moves:		****		****			****			****		
Green Time:	14.9	10.0	24.2	58.8	53.9	53.9	10.0	10.0	10.0	14.2	14.2	0.0
Volume/Cap:	0.15	0.43	0.49	0.61	0.47	0.47	0.29	0.29	0.14	0.61	0.61	0.00
Delay/Veh:	39.8	45.7	36.0	16.1	16.6	16.6	44.7	44.7	44.0	45.0	45.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.8	45.7	36.0	16.1	16.6	16.6	44.7	44.7	44.0	45.0	45.0	0.0
LOS by Move:	D	D	D	B	B	B	D	D	D	D	D	A
HCM2k95thQ:	2	6	12	24	17	17	4	4	2	9	9	0

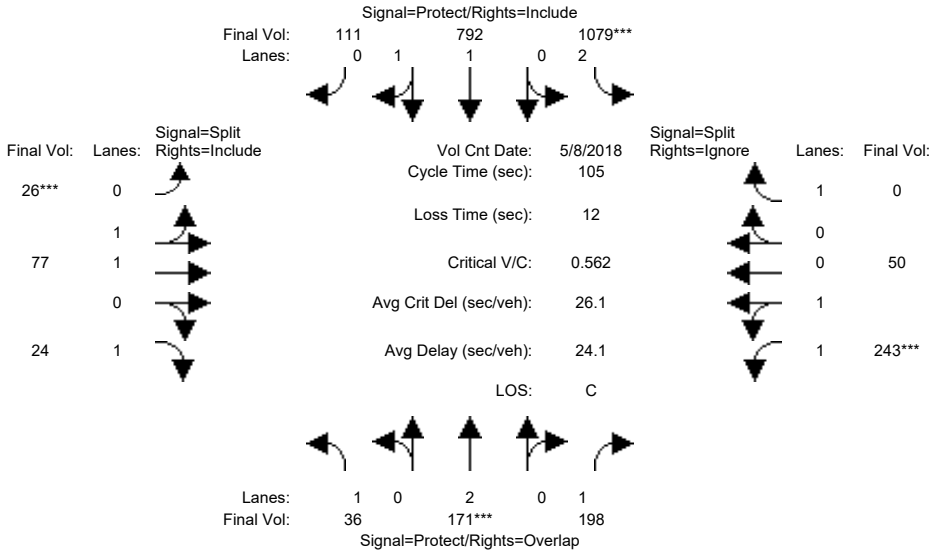
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project PM

Intersection #101: Monterey Road and Cochrane Road



Street Name:	Monterey Road						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	36	157	198	1074	783	111	26	77	24	243	50	180
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	36	157	198	1074	783	111	26	77	24	243	50	180
Added Vol:	0	14	0	5	9	0	0	0	0	0	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	171	198	1079	792	111	26	77	24	243	50	188
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	36	171	198	1079	792	111	26	77	24	243	50	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	171	198	1079	792	111	26	77	24	243	50	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	36	171	198	1079	792	111	26	77	24	243	50	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.95	0.98	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	2.00	1.75	0.25	0.52	1.48	1.00	1.66	0.34	1.00
Final Sat.:	1750	3800	1750	3150	3245	455	934	2765	1750	2944	606	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.05	0.11	0.34	0.24	0.24	0.03	0.03	0.01	0.08	0.08	0.00
Crit Moves:		****		****			****			****		
Green Time:	14.8	10.0	24.2	58.8	54.1	54.1	10.0	10.0	10.0	14.2	14.2	0.0
Volume/Cap:	0.15	0.47	0.49	0.61	0.47	0.47	0.29	0.29	0.14	0.61	0.61	0.00
Delay/Veh:	39.9	46.0	36.0	16.1	16.5	16.5	44.7	44.7	44.0	45.1	45.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.9	46.0	36.0	16.1	16.5	16.5	44.7	44.7	44.0	45.1	45.1	0.0
LOS by Move:	D	D	D	B	B	B	D	D	D	D	D	A
HCM2k95thQ:	2	6	12	24	17	17	4	4	2	9	9	0

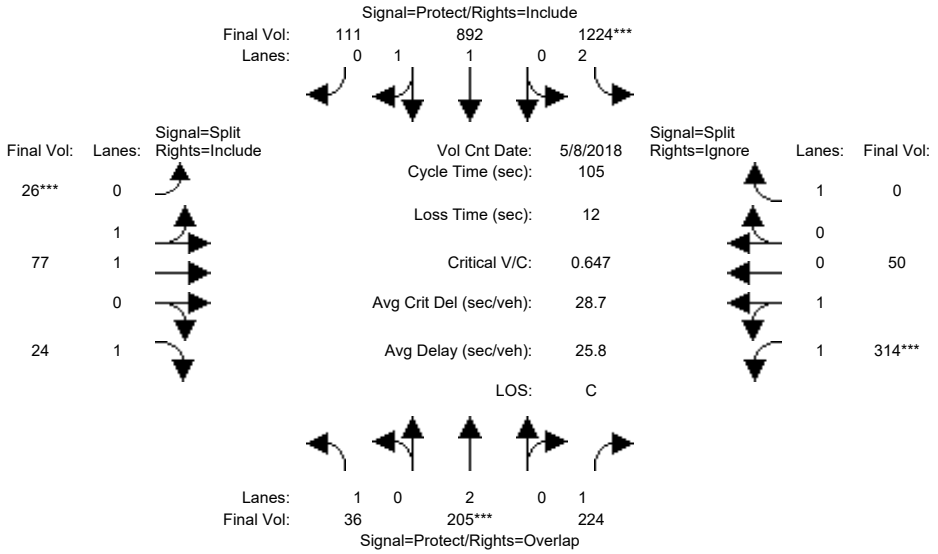
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative without Project PM

Intersection #101: Monterey Road and Cochrane Road



Street Name:	Monterey Road						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	36	205	224	1224	892	111	26	77	24	314	50	378
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	36	205	224	1224	892	111	26	77	24	314	50	378
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	205	224	1224	892	111	26	77	24	314	50	378
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	36	205	224	1224	892	111	26	77	24	314	50	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	205	224	1224	892	111	26	77	24	314	50	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	36	205	224	1224	892	111	26	77	24	314	50	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.95	0.98	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	2.00	1.77	0.23	0.52	1.48	1.00	1.73	0.27	1.00
Final Sat.:	1750	3800	1750	3150	3290	409	934	2765	1750	3062	488	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.05	0.13	0.39	0.27	0.27	0.03	0.03	0.01	0.10	0.10	0.00
Crit Moves:		****		****			****			****		
Green Time:	13.4	10.0	25.2	57.8	54.4	54.4	10.0	10.0	10.0	15.2	15.2	0.0
Volume/Cap:	0.16	0.57	0.53	0.71	0.52	0.52	0.29	0.29	0.14	0.71	0.71	0.00
Delay/Veh:	41.2	47.5	36.1	18.7	17.0	17.0	44.7	44.7	44.0	47.2	47.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.2	47.5	36.1	18.7	17.0	17.0	44.7	44.7	44.0	47.2	47.2	0.0
LOS by Move:	D	D	D	B	B	B	D	D	D	D	D	A
HCM2k95thQ:	2	8	14	29	19	19	4	4	2	12	12	0

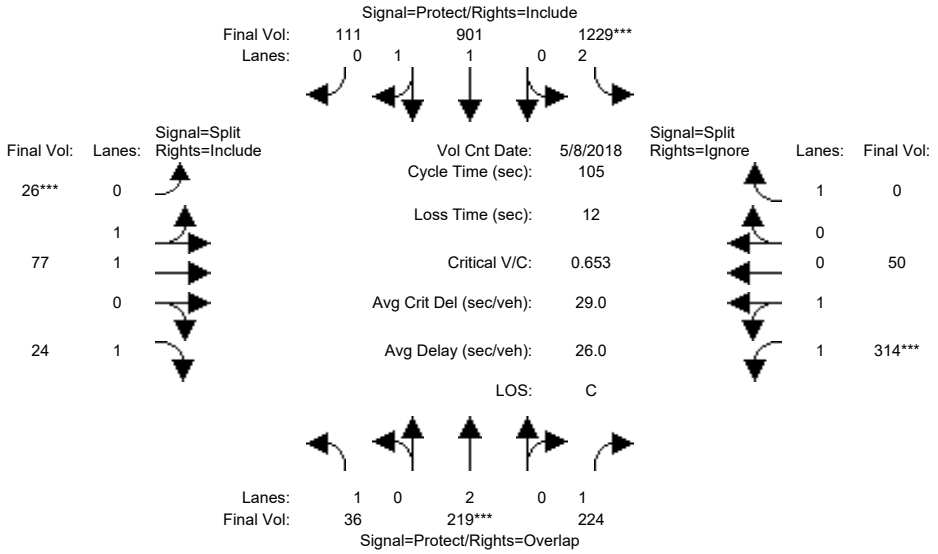
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative with Project PM

Intersection #101: Monterey Road and Cochrane Road



Street Name:	Monterey Road						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	36	205	224	1224	892	111	26	77	24	314	50	378
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	36	205	224	1224	892	111	26	77	24	314	50	378
Added Vol:	0	14	0	5	9	0	0	0	0	0	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	219	224	1229	901	111	26	77	24	314	50	386
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	36	219	224	1229	901	111	26	77	24	314	50	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	219	224	1229	901	111	26	77	24	314	50	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	36	219	224	1229	901	111	26	77	24	314	50	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.95	0.98	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	2.00	1.77	0.23	0.52	1.48	1.00	1.73	0.27	1.00
Final Sat.:	1750	3800	1750	3150	3294	406	934	2765	1750	3062	488	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.06	0.13	0.39	0.27	0.27	0.03	0.03	0.01	0.10	0.10	0.00
Crit Moves:		****		****			****			****		
Green Time:	13.3	10.0	25.2	57.8	54.5	54.5	10.0	10.0	10.0	15.2	15.2	0.0
Volume/Cap:	0.16	0.61	0.53	0.71	0.53	0.53	0.29	0.29	0.14	0.71	0.71	0.00
Delay/Veh:	41.2	48.5	36.1	18.8	17.0	17.0	44.7	44.7	44.0	47.3	47.3	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.2	48.5	36.1	18.8	17.0	17.0	44.7	44.7	44.0	47.3	47.3	0.0
LOS by Move:	D	D	D	B	B	B	D	D	D	D	D	A
HCM2k95thQ:	2	9	14	29	19	19	4	4	2	12	12	0

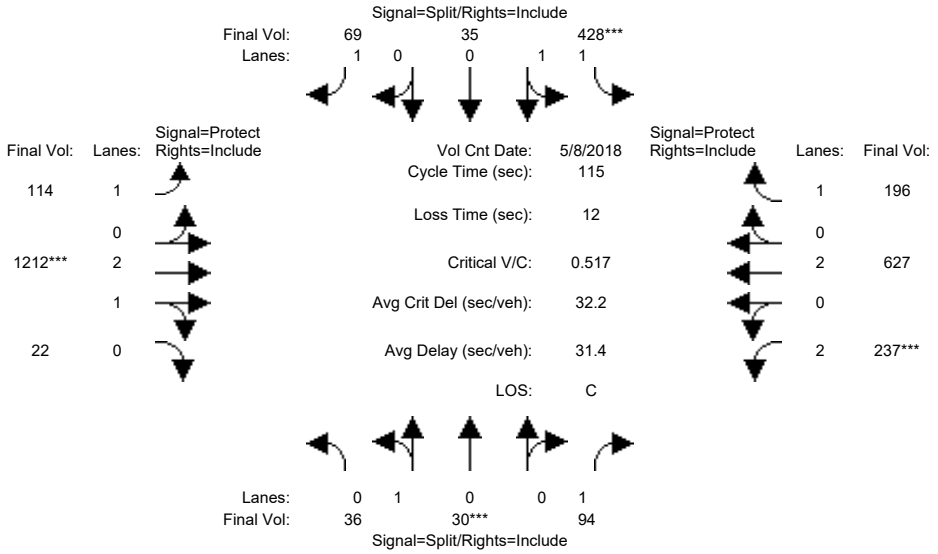
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #106: Madrone Parkway/Cochrane Plaza and Cochrane Road



Street Name:	Madrone Parkway/Cochrane Plaza						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	36	30	94	428	35	69	114	1212	22	237	627	196
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	36	30	94	428	35	69	114	1212	22	237	627	196
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	30	94	428	35	69	114	1212	22	237	627	196
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	30	94	428	35	69	114	1212	22	237	627	196
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	30	94	428	35	69	114	1212	22	237	627	196
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	30	94	428	35	69	114	1212	22	237	627	196
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.93	0.95	0.92	0.92	0.98	0.95	0.83	1.00	0.92
Lanes:	0.55	0.45	1.00	1.85	0.15	1.00	1.00	2.94	0.06	2.00	2.00	1.00
Final Sat.:	982	818	1750	3282	268	1750	1750	5500	100	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.05	0.13	0.13	0.04	0.07	0.22	0.22	0.08	0.17	0.11
Crit Moves:		****		****				****		****		
Green Time:	12.0	12.0	12.0	27.9	27.9	27.9	17.9	47.1	47.1	16.1	45.3	45.3
Volume/Cap:	0.35	0.35	0.52	0.54	0.54	0.16	0.42	0.54	0.54	0.54	0.42	0.28
Delay/Veh:	49.1	49.1	51.4	38.6	38.6	34.5	44.9	26.0	26.0	47.3	25.5	24.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.1	49.1	51.4	38.6	38.6	34.5	44.9	26.0	26.0	47.3	25.5	24.0
LOS by Move:	D	D	D	D	D	C	D	C	C	D	C	C
HCM2k95thQ:	5	5	8	15	15	4	8	20	20	9	15	10

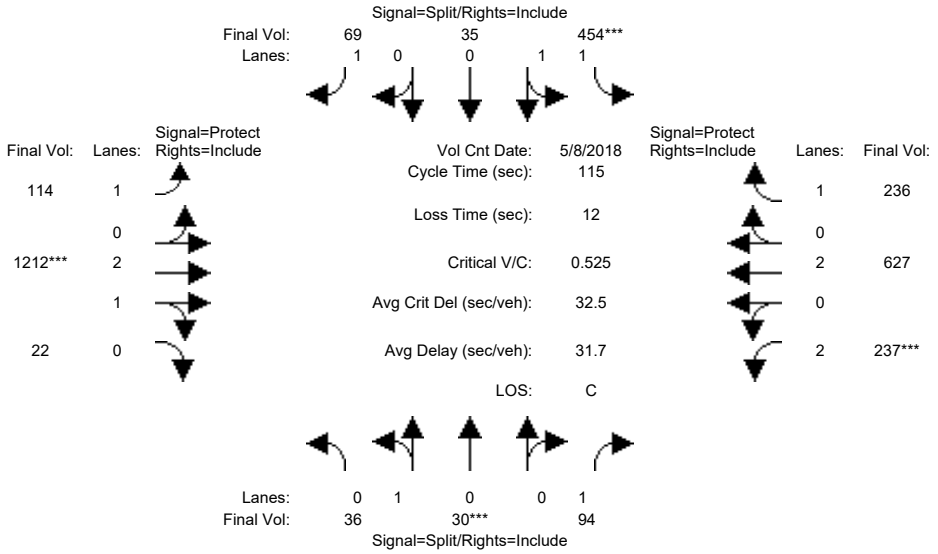
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project PM

Intersection #106: Madrone Parkway/Cochrane Plaza and Cochrane Road



Street Name:	Madrone Parkway/Cochrane Plaza						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	36	30	94	428	35	69	114	1212	22	237	627	196
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	36	30	94	428	35	69	114	1212	22	237	627	196
Added Vol:	0	0	0	26	0	0	0	0	0	0	0	40
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	30	94	454	35	69	114	1212	22	237	627	236
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	30	94	454	35	69	114	1212	22	237	627	236
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	30	94	454	35	69	114	1212	22	237	627	236
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	30	94	454	35	69	114	1212	22	237	627	236
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.93	0.95	0.92	0.92	0.98	0.95	0.83	1.00	0.92
Lanes:	0.55	0.45	1.00	1.86	0.14	1.00	1.00	2.94	0.06	2.00	2.00	1.00
Final Sat.:	982	818	1750	3296	254	1750	1750	5500	100	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.05	0.14	0.14	0.04	0.07	0.22	0.22	0.08	0.17	0.13
Crit Moves:		****		****				****		****		
Green Time:	11.8	11.8	11.8	29.0	29.0	29.0	17.6	46.4	46.4	15.8	44.6	44.6
Volume/Cap:	0.36	0.36	0.52	0.55	0.55	0.16	0.43	0.55	0.55	0.55	0.43	0.35
Delay/Veh:	49.3	49.3	51.8	38.0	38.0	33.6	45.2	26.5	26.5	47.7	26.0	25.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.3	49.3	51.8	38.0	38.0	33.6	45.2	26.5	26.5	47.7	26.0	25.2
LOS by Move:	D	D	D	D	D	C	D	C	C	D	C	C
HCM2k95thQ:	5	5	8	16	16	4	8	20	20	9	15	12

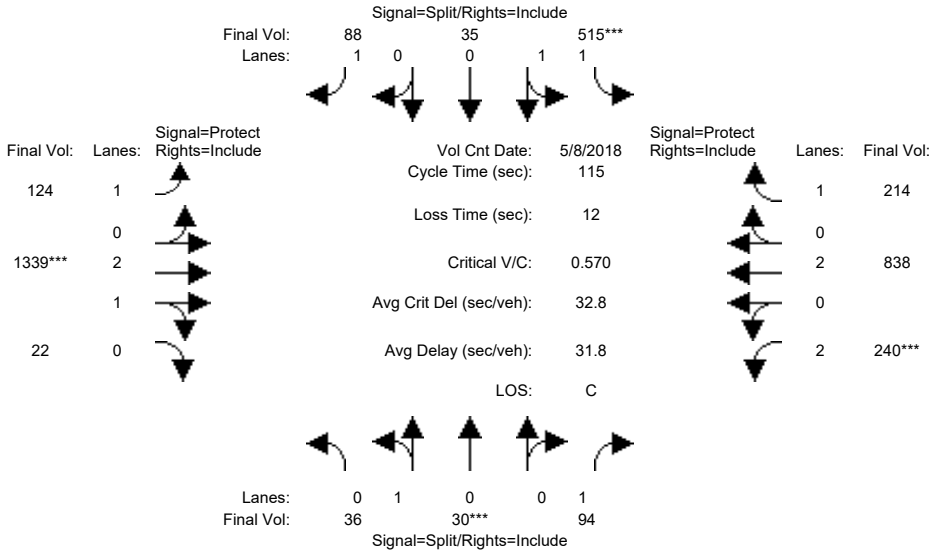
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative without Project PM

Intersection #106: Madrone Parkway/Cochrane Plaza and Cochrane Road



Street Name:	Madrone Parkway/Cochrane Plaza						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	36	30	94	515	35	88	124	1339	22	240	838	214
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	36	30	94	515	35	88	124	1339	22	240	838	214
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	30	94	515	35	88	124	1339	22	240	838	214
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	30	94	515	35	88	124	1339	22	240	838	214
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	30	94	515	35	88	124	1339	22	240	838	214
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	30	94	515	35	88	124	1339	22	240	838	214
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.93	0.95	0.92	0.92	0.98	0.95	0.83	1.00	0.92
Lanes:	0.55	0.45	1.00	1.87	0.13	1.00	1.00	2.95	0.05	2.00	2.00	1.00
Final Sat.:	982	818	1750	3324	226	1750	1750	5509	91	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.05	0.15	0.15	0.05	0.07	0.24	0.24	0.08	0.22	0.12
Crit Moves:		****		****				****		****		
Green Time:	10.8	10.8	10.8	30.1	30.1	30.1	15.1	47.2	47.2	14.8	47.0	47.0
Volume/Cap:	0.39	0.39	0.57	0.59	0.59	0.19	0.54	0.59	0.59	0.59	0.54	0.30
Delay/Veh:	50.5	50.5	54.6	38.1	38.1	33.2	49.3	26.8	26.8	49.6	26.2	23.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.5	50.5	54.6	38.1	38.1	33.2	49.3	26.8	26.8	49.6	26.2	23.2
LOS by Move:	D	D	D	D	D	C	D	C	C	D	C	C
HCM2k95thQ:	5	5	8	18	18	5	9	22	22	9	20	10

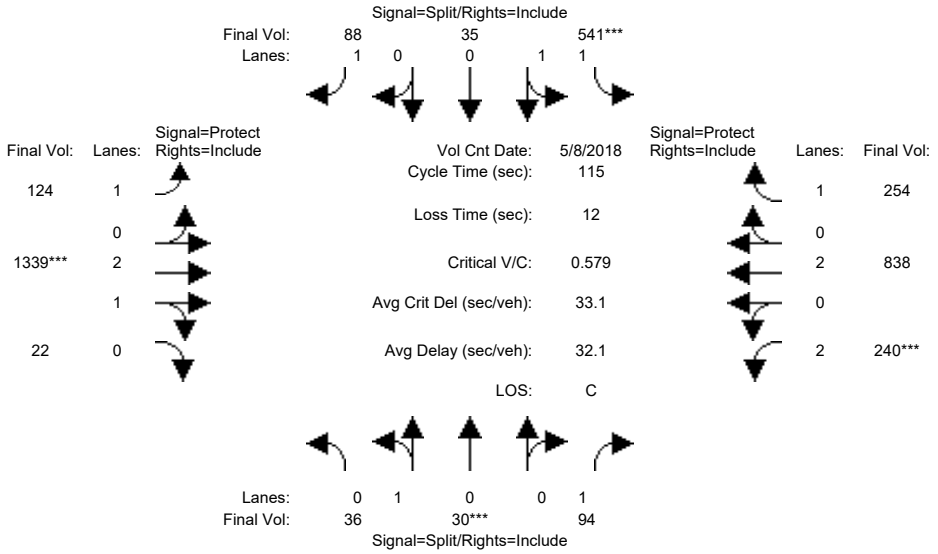
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative with Project PM

Intersection #106: Madrone Parkway/Cochrane Plaza and Cochrane Road



Street Name:	Madrone Parkway/Cochrane Plaza						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	36	30	94	515	35	88	124	1339	22	240	838	214
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	36	30	94	515	35	88	124	1339	22	240	838	214
Added Vol:	0	0	0	26	0	0	0	0	0	0	0	40
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	30	94	541	35	88	124	1339	22	240	838	254
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	30	94	541	35	88	124	1339	22	240	838	254
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	30	94	541	35	88	124	1339	22	240	838	254
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	30	94	541	35	88	124	1339	22	240	838	254
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.93	0.95	0.92	0.92	0.98	0.95	0.83	1.00	0.92
Lanes:	0.55	0.45	1.00	1.88	0.12	1.00	1.00	2.95	0.05	2.00	2.00	1.00
Final Sat.:	982	818	1750	3334	216	1750	1750	5509	91	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.05	0.16	0.16	0.05	0.07	0.24	0.24	0.08	0.22	0.15
Crit Moves:		****		****				****		****		
Green Time:	10.7	10.7	10.7	31.1	31.1	31.1	14.9	46.6	46.6	14.6	46.3	46.3
Volume/Cap:	0.39	0.39	0.58	0.60	0.60	0.19	0.55	0.60	0.60	0.60	0.55	0.36
Delay/Veh:	50.7	50.7	55.1	37.6	37.6	32.4	49.7	27.3	27.3	50.0	26.7	24.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.7	50.7	55.1	37.6	37.6	32.4	49.7	27.3	27.3	50.0	26.7	24.3
LOS by Move:	D	D	E	D	D	C	D	C	C	D	C	C
HCM2k95thQ:	5	5	9	18	18	5	9	22	22	9	20	12

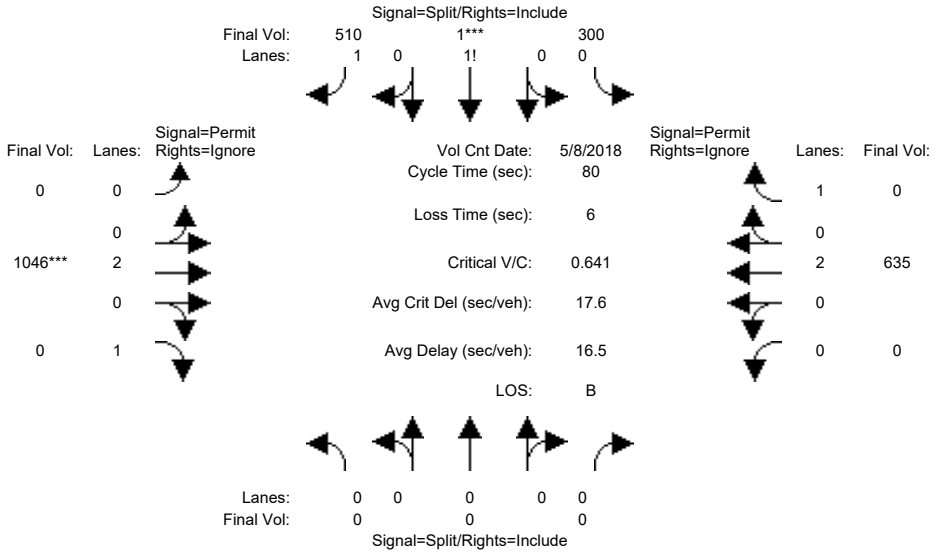
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #107: US 101 Southbound Ramps and Cochrane Road



Street Name:	US 101 Southbound Ramps						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	0	0	10	0	10	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	0	0	0	300	1	510	0	1046	741	0	635	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	300	1	510	0	1046	741	0	635	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	300	1	510	0	1046	741	0	635	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	0	300	1	510	0	1046	0	0	635	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	300	1	510	0	1046	0	0	635	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	0	300	1	510	0	1046	0	0	635	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.54	0.01	1.45	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	0	0	0	944	3	2553	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.32	0.32	0.20	0.00	0.28	0.00	0.00	0.17	0.00
Crit Moves:					****			****				
Green Time:	0.0	0.0	0.0	39.6	39.6	39.6	0.0	34.4	0.0	0.0	34.4	0.0
Volume/Cap:	0.00	0.00	0.00	0.64	0.64	0.40	0.00	0.64	0.00	0.00	0.39	0.00
Delay/Veh:	0.0	0.0	0.0	16.0	16.0	12.9	0.0	18.8	0.0	0.0	15.8	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	16.0	16.0	12.9	0.0	18.8	0.0	0.0	15.8	0.0
LOS by Move:	A	A	A	B	B	B	A	B	A	A	B	A
HCM2k95thQ:	0	0	0	21	21	12	0	18	0	0	10	0

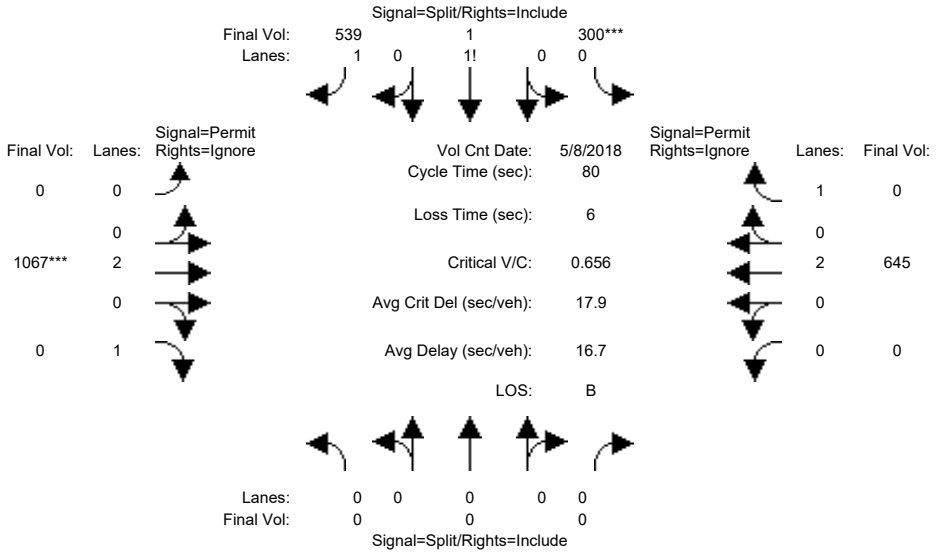
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project PM

Intersection #107: US 101 Southbound Ramps and Cochrane Road



Street Name:	US 101 Southbound Ramps						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	0	0	10	0	10	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	0	0	0	300	1	510	0	1046	741	0	635	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	300	1	510	0	1046	741	0	635	0
Added Vol:	0	0	0	0	0	29	0	21	5	0	10	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	300	1	539	0	1067	746	0	645	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	0	300	1	539	0	1067	0	0	645	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	300	1	539	0	1067	0	0	645	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	0	300	1	539	0	1067	0	0	645	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.52	0.01	1.47	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	0	0	0	920	3	2577	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.33	0.33	0.21	0.00	0.28	0.00	0.00	0.17	0.00
Crit Moves:				****				****				
Green Time:	0.0	0.0	0.0	39.8	39.8	39.8	0.0	34.2	0.0	0.0	34.2	0.0
Volume/Cap:	0.00	0.00	0.00	0.66	0.66	0.42	0.00	0.66	0.00	0.00	0.40	0.00
Delay/Veh:	0.0	0.0	0.0	16.3	16.3	12.9	0.0	19.2	0.0	0.0	15.9	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	16.3	16.3	12.9	0.0	19.2	0.0	0.0	15.9	0.0
LOS by Move:	A	A	A	B	B	B	A	B	A	A	B	A
HCM2k95thQ:	0	0	0	22	22	12	0	19	0	0	10	0

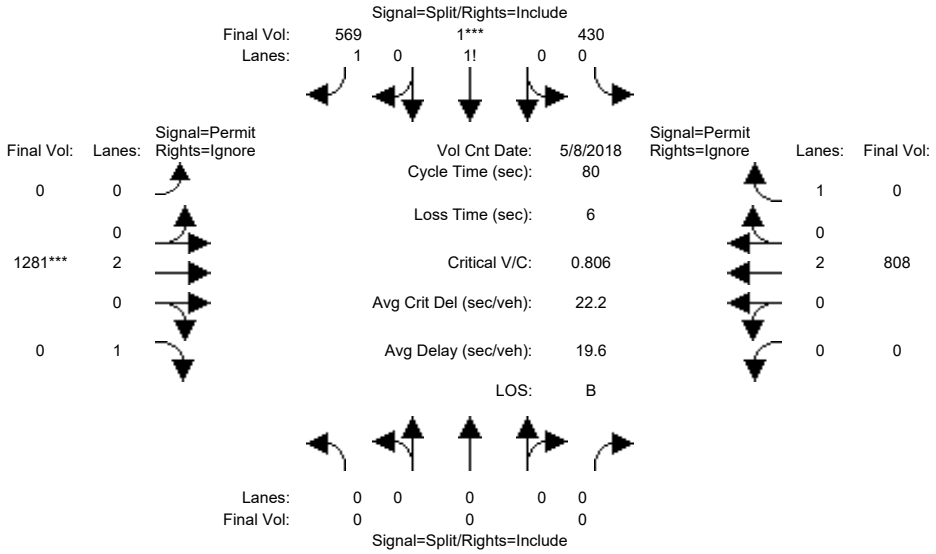
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative without Project PM

Intersection #107: US 101 Southbound Ramps and Cochrane Road



Street Name:	US 101 Southbound Ramps						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	0	0	0	430	1	569	0	1281	741	0	808	157
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	430	1	569	0	1281	741	0	808	157
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	430	1	569	0	1281	741	0	808	157
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	0	430	1	569	0	1281	0	0	808	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	430	1	569	0	1281	0	0	808	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	0	430	1	569	0	1281	0	0	808	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.60	0.01	1.39	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1052	2	2446	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.41	0.41	0.23	0.00	0.34	0.00	0.00	0.21	0.00
Crit Moves:					****			****				
Green Time:	0.0	0.0	0.0	40.6	40.6	40.6	0.0	33.4	0.0	0.0	33.4	0.0
Volume/Cap:	0.00	0.00	0.00	0.81	0.81	0.46	0.00	0.81	0.00	0.00	0.51	0.00
Delay/Veh:	0.0	0.0	0.0	20.4	20.4	12.8	0.0	23.6	0.0	0.0	17.5	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	20.4	20.4	12.8	0.0	23.6	0.0	0.0	17.5	0.0
LOS by Move:	A	A	A	C	C	B	A	C	A	A	B	A
HCM2k95thQ:	0	0	0	31	31	14	0	25	0	0	14	0

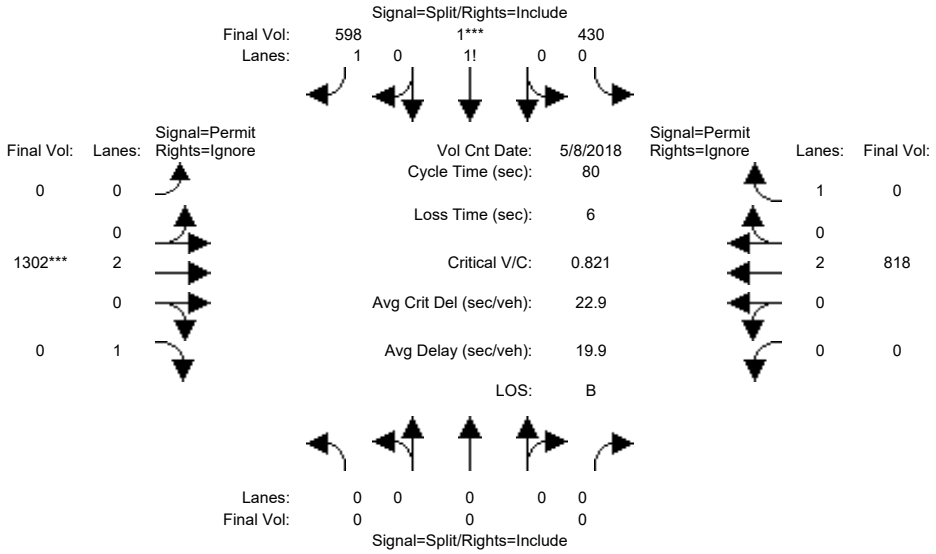
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative with Project PM

Intersection #107: US 101 Southbound Ramps and Cochrane Road



Street Name:	US 101 Southbound Ramps						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	0	0	0	430	1	569	0	1281	741	0	808	157
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	430	1	569	0	1281	741	0	808	157
Added Vol:	0	0	0	0	0	29	0	21	5	0	10	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	430	1	598	0	1302	746	0	818	157
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	0	430	1	598	0	1302	0	0	818	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	430	1	598	0	1302	0	0	818	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	0	430	1	598	0	1302	0	0	818	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.58	0.01	1.41	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1031	2	2467	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.42	0.42	0.24	0.00	0.34	0.00	0.00	0.22	0.00
Crit Moves:					****			****				
Green Time:	0.0	0.0	0.0	40.6	40.6	40.6	0.0	33.4	0.0	0.0	33.4	0.0
Volume/Cap:	0.00	0.00	0.00	0.82	0.82	0.48	0.00	0.82	0.00	0.00	0.52	0.00
Delay/Veh:	0.0	0.0	0.0	21.1	21.1	13.0	0.0	24.2	0.0	0.0	17.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	21.1	21.1	13.0	0.0	24.2	0.0	0.0	17.6	0.0
LOS by Move:	A	A	A	C	C	B	A	C	A	A	B	A
HCM2k95thQ:	0	0	0	32	32	14	0	26	0	0	14	0

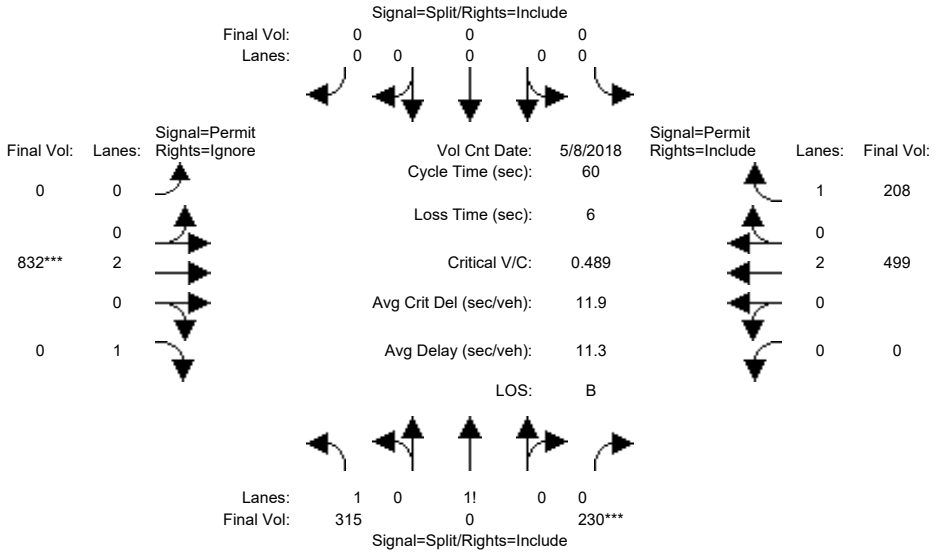
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #108: US 101 Northbound Ramps and Cochrane Road



Street Name:	US 101 Northbound Ramps						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	315	0	230	0	0	0	0	832	0	0	499	208
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	315	0	230	0	0	0	0	832	0	0	499	208
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	315	0	230	0	0	0	0	832	0	0	499	208
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	315	0	230	0	0	0	0	832	0	0	499	208
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	315	0	230	0	0	0	0	832	0	0	499	208
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	315	0	230	0	0	0	0	832	0	0	499	208
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.41	0.00	0.59	0.00	0.00	0.00	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	2461	0	1039	0	0	0	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.13	0.00	0.22	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.13	0.12
Crit Moves:			****					****				
Green Time:	27.2	0.0	27.2	0.0	0.0	0.0	0.0	26.8	0.0	0.0	26.8	26.8
Volume/Cap:	0.28	0.00	0.49	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.29	0.27
Delay/Veh:	10.4	0.0	11.9	0.0	0.0	0.0	0.0	11.9	0.0	0.0	10.6	10.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.4	0.0	11.9	0.0	0.0	0.0	0.0	11.9	0.0	0.0	10.6	10.6
LOS by Move:	B	A	B	A	A	A	A	B	A	A	B	B
HCM2k95thQ:	6	0	11	0	0	0	0	10	0	0	6	5

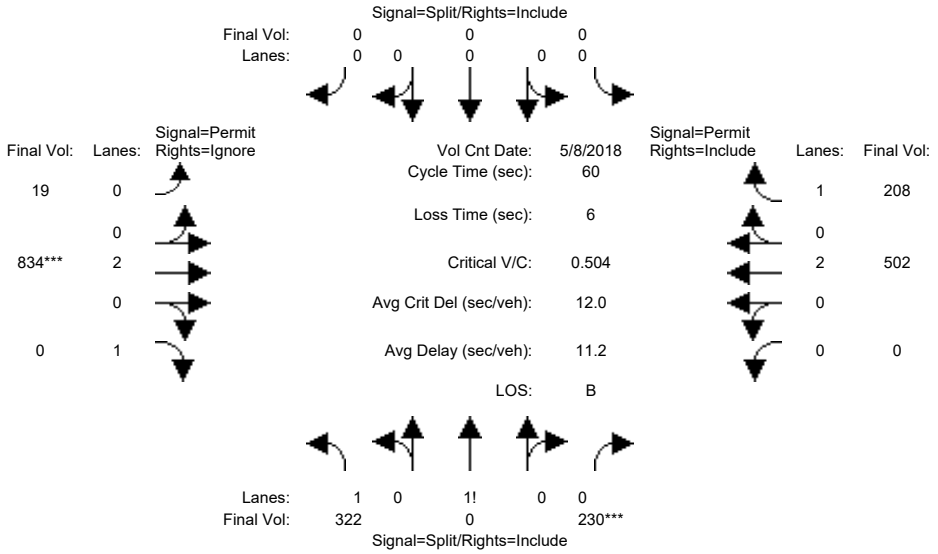
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project PM

Intersection #108: US 101 Northbound Ramps and Cochrane Road



Street Name:	US 101 Northbound Ramps						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	315	0	230	0	0	0	0	832	0	0	499	208
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	315	0	230	0	0	0	0	832	0	0	499	208
Added Vol:	7	0	0	0	0	0	19	2	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	322	0	230	0	0	0	19	834	0	0	502	208
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	322	0	230	0	0	0	19	834	0	0	502	208
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	322	0	230	0	0	0	19	834	0	0	502	208
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	322	0	230	0	0	0	19	834	0	0	502	208
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.97	0.92	0.92	1.00	0.92
Lanes:	1.41	0.00	0.59	0.00	0.00	0.00	0.05	1.95	1.00	0.00	2.00	1.00
Final Sat.:	2471	0	1029	0	0	0	82	3618	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.13	0.00	0.22	0.00	0.00	0.00	0.23	0.23	0.00	0.00	0.13	0.12
Crit Moves:			****					****				
Green Time:	26.6	0.0	26.6	0.0	0.0	0.0	27.4	27.4	0.0	0.0	27.4	27.4
Volume/Cap:	0.29	0.00	0.50	0.00	0.00	0.00	0.50	0.50	0.00	0.00	0.29	0.26
Delay/Veh:	10.8	0.0	12.4	0.0	0.0	0.0	11.7	11.7	0.0	0.0	10.3	10.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.8	0.0	12.4	0.0	0.0	0.0	11.7	11.7	0.0	0.0	10.3	10.2
LOS by Move:	B	A	B	A	A	A	B	B	A	A	B	B
HCM2k95thQ:	6	0	12	0	0	0	11	11	0	0	6	5

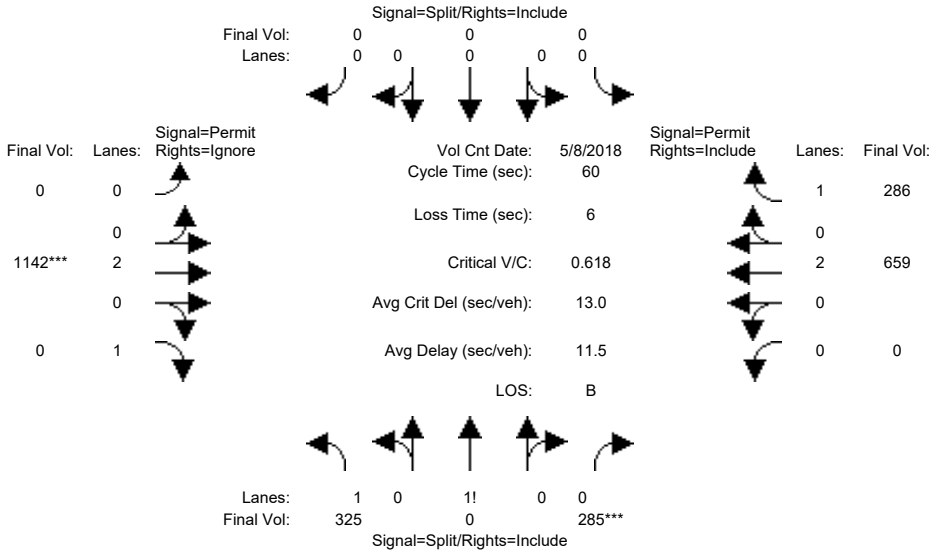
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative without Project PM

Intersection #108: US 101 Northbound Ramps and Cochrane Road



Street Name:	US 101 Northbound Ramps						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	325	0	285	0	0	0	0	1142	0	0	659	286
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	325	0	285	0	0	0	0	1142	0	0	659	286
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	325	0	285	0	0	0	0	1142	0	0	659	286
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	325	0	285	0	0	0	0	1142	0	0	659	286
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	325	0	285	0	0	0	0	1142	0	0	659	286
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	325	0	285	0	0	0	0	1142	0	0	659	286
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.36	0.00	0.64	0.00	0.00	0.00	0.00	2.00	1.00	0.00	2.00	1.00
Final Sat.:	2385	0	1115	0	0	0	0	3800	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.14	0.00	0.26	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.17	0.16
Crit Moves:			****					****				
Green Time:	24.8	0.0	24.8	0.0	0.0	0.0	0.0	29.2	0.0	0.0	29.2	29.2
Volume/Cap:	0.33	0.00	0.62	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.36	0.34
Delay/Veh:	12.0	0.0	15.1	0.0	0.0	0.0	0.0	12.0	0.0	0.0	9.7	9.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.0	0.0	15.1	0.0	0.0	0.0	0.0	12.0	0.0	0.0	9.7	9.7
LOS by Move:	B	A	B	A	A	A	A	B	A	A	A	A
HCM2k95thQ:	7	0	15	0	0	0	0	14	0	0	8	7

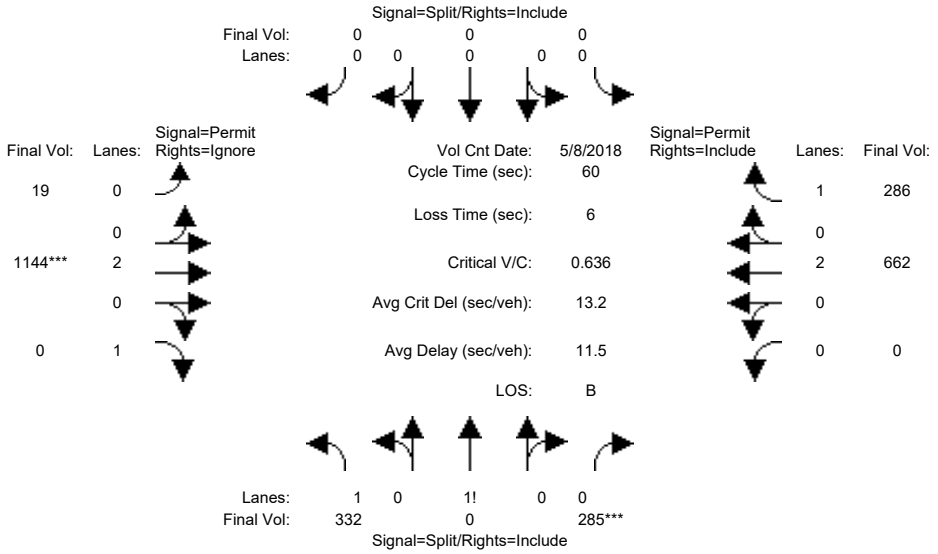
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative with Project PM

Intersection #108: US 101 Northbound Ramps and Cochrane Road



Street Name:	US 101 Northbound Ramps						Cochrane Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	325	0	285	0	0	0	0	1142	0	0	659	286
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	325	0	285	0	0	0	0	1142	0	0	659	286
Added Vol:	7	0	0	0	0	0	19	2	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	332	0	285	0	0	0	19	1144	0	0	662	286
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	332	0	285	0	0	0	19	1144	0	0	662	286
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	332	0	285	0	0	0	19	1144	0	0	662	286
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	332	0	285	0	0	0	19	1144	0	0	662	286
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.97	0.92	0.92	1.00	0.92
Lanes:	1.37	0.00	0.63	0.00	0.00	0.00	0.03	1.97	1.00	0.00	2.00	1.00
Final Sat.:	2394	0	1106	0	0	0	60	3640	1750	0	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.14	0.00	0.26	0.00	0.00	0.00	0.31	0.31	0.00	0.00	0.17	0.16
Crit Moves:			****					****				
Green Time:	24.3	0.0	24.3	0.0	0.0	0.0	29.7	29.7	0.0	0.0	29.7	29.7
Volume/Cap:	0.34	0.00	0.64	0.00	0.00	0.00	0.64	0.64	0.00	0.00	0.35	0.33
Delay/Veh:	12.4	0.0	15.7	0.0	0.0	0.0	11.9	11.9	0.0	0.0	9.4	9.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.4	0.0	15.7	0.0	0.0	0.0	11.9	11.9	0.0	0.0	9.4	9.4
LOS by Move:	B	A	B	A	A	A	B	B	A	A	A	A
HCM2k95thQ:	7	0	15	0	0	0	15	15	0	0	8	7

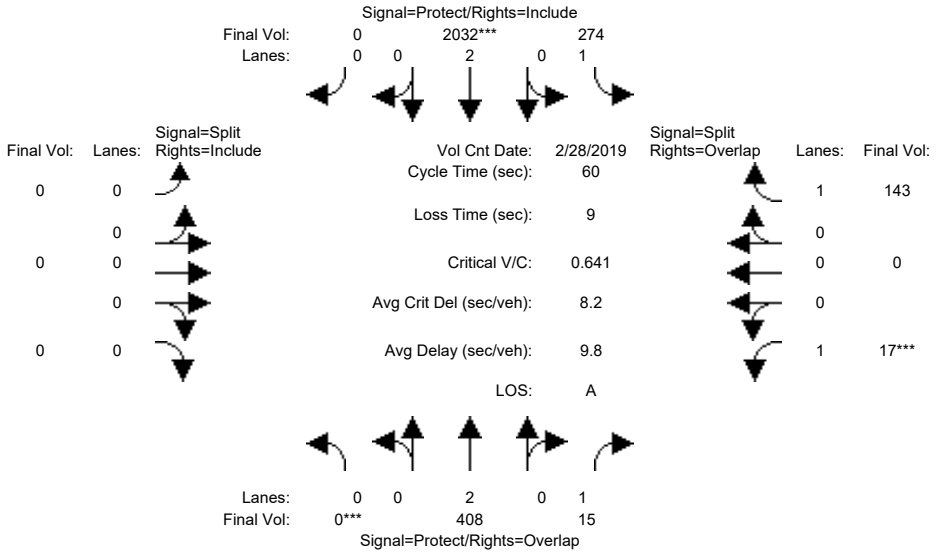
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #1324: Monterey Road and Madrone Parkway



Street Name:	Monterey Road						Madrone Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 28 Feb 2019 <<												
Base Vol:	0	408	15	274	2032	0	0	0	0	17	0	143
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	408	15	274	2032	0	0	0	0	17	0	143
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	408	15	274	2032	0	0	0	0	17	0	143
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	408	15	274	2032	0	0	0	0	17	0	143
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	408	15	274	2032	0	0	0	0	17	0	143
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	408	15	274	2032	0	0	0	0	17	0	143
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3800	1750	1750	3800	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.11	0.01	0.16	0.53	0.00	0.00	0.00	0.00	0.01	0.00	0.08
Crit Moves:	****				****					****		
Green Time:	0.0	21.1	31.1	19.9	41.0	0.0	0.0	0.0	0.0	10.0	0.0	29.9
Volume/Cap:	0.00	0.30	0.02	0.47	0.78	0.00	0.00	0.00	0.00	0.06	0.00	0.16
Delay/Veh:	0.0	14.2	7.0	16.5	8.1	0.0	0.0	0.0	0.0	21.1	0.0	8.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	14.2	7.0	16.5	8.1	0.0	0.0	0.0	0.0	21.1	0.0	8.3
LOS by Move:	A	B	A	B	A	A	A	A	A	C	A	A
HCM2k95thQ:	0	5	0	8	23	0	0	0	0	1	0	3

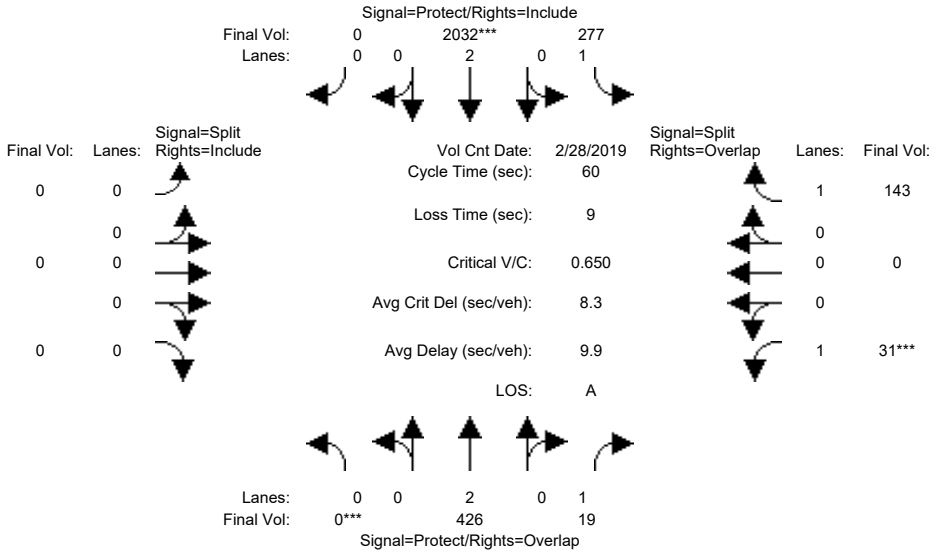
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project PM

Intersection #1324: Monterey Road and Madrone Parkway



Street Name:	Monterey Road						Madrone Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 28 Feb 2019 <<												
Base Vol:	0	408	15	274	2032	0	0	0	0	17	0	143
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	408	15	274	2032	0	0	0	0	17	0	143
Added Vol:	0	18	4	3	0	0	0	0	0	14	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	426	19	277	2032	0	0	0	0	31	0	143
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	426	19	277	2032	0	0	0	0	31	0	143
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	426	19	277	2032	0	0	0	0	31	0	143
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	426	19	277	2032	0	0	0	0	31	0	143
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3800	1750	1750	3800	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.11	0.01	0.16	0.53	0.00	0.00	0.00	0.00	0.02	0.00	0.08
Crit Moves:	****				****					****		
Green Time:	0.0	21.0	31.0	20.0	41.0	0.0	0.0	0.0	0.0	10.0	0.0	30.0
Volume/Cap:	0.00	0.32	0.02	0.48	0.78	0.00	0.00	0.00	0.00	0.11	0.00	0.16
Delay/Veh:	0.0	14.4	7.1	16.5	8.1	0.0	0.0	0.0	0.0	21.4	0.0	8.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	14.4	7.1	16.5	8.1	0.0	0.0	0.0	0.0	21.4	0.0	8.3
LOS by Move:	A	B	A	B	A	A	A	A	A	C	A	A
HCM2k95thQ:	0	6	0	8	23	0	0	0	0	1	0	3

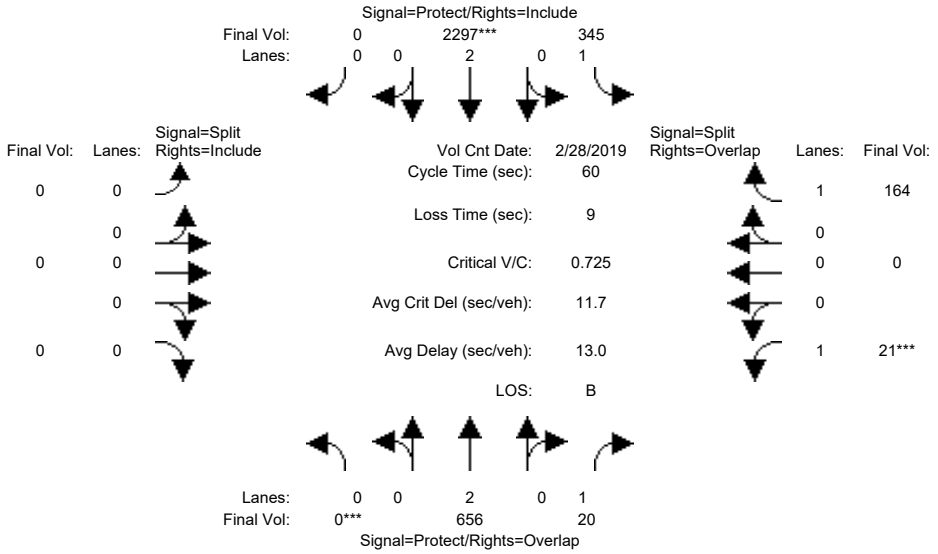
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative without Project PM

Intersection #1324: Monterey Road and Madrone Parkway



Street Name:	Monterey Road						Madrone Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 28 Feb 2019 <<												
Base Vol:	0	656	20	345	2297	0	0	0	0	21	0	164
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	656	20	345	2297	0	0	0	0	21	0	164
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	656	20	345	2297	0	0	0	0	21	0	164
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	656	20	345	2297	0	0	0	0	21	0	164
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	656	20	345	2297	0	0	0	0	21	0	164
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	656	20	345	2297	0	0	0	0	21	0	164
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3800	1750	1750	3800	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.17	0.01	0.20	0.60	0.00	0.00	0.00	0.00	0.01	0.00	0.09
Crit Moves:	****				****					****		
Green Time:	0.0	19.1	29.1	21.9	41.0	0.0	0.0	0.0	0.0	10.0	0.0	31.9
Volume/Cap:	0.00	0.54	0.02	0.54	0.88	0.00	0.00	0.00	0.00	0.07	0.00	0.18
Delay/Veh:	0.0	17.3	8.0	16.0	11.6	0.0	0.0	0.0	0.0	21.2	0.0	7.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	17.3	8.0	16.0	11.6	0.0	0.0	0.0	0.0	21.2	0.0	7.4
LOS by Move:	A	B	A	B	B	A	A	A	A	C	A	A
HCM2k95thQ:	0	10	0	10	29	0	0	0	0	1	0	4

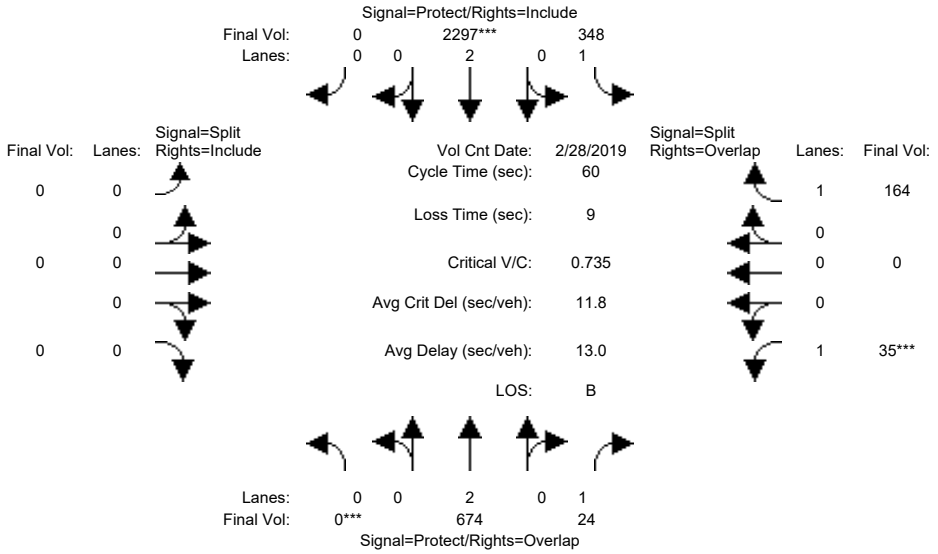
Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

City of Morgan Hill
Monterey-Madrone Residential Development

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Year 2025 Cumulative with Project PM

Intersection #1324: Monterey Road and Madrone Parkway



Street Name:	Monterey Road						Madrone Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 28 Feb 2019 <<												
Base Vol:	0	656	20	345	2297	0	0	0	0	21	0	164
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	656	20	345	2297	0	0	0	0	21	0	164
Added Vol:	0	18	4	3	0	0	0	0	0	14	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	674	24	348	2297	0	0	0	0	35	0	164
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	674	24	348	2297	0	0	0	0	35	0	164
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	674	24	348	2297	0	0	0	0	35	0	164
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	674	24	348	2297	0	0	0	0	35	0	164
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3800	1750	1750	3800	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.01	0.20	0.60	0.00	0.00	0.00	0.00	0.02	0.00	0.09
Crit Moves:	****				****					****		
Green Time:	0.0	19.3	29.3	21.7	41.0	0.0	0.0	0.0	0.0	10.0	0.0	31.7
Volume/Cap:	0.00	0.55	0.03	0.55	0.88	0.00	0.00	0.00	0.00	0.12	0.00	0.18
Delay/Veh:	0.0	17.3	8.0	16.3	11.6	0.0	0.0	0.0	0.0	21.4	0.0	7.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	17.3	8.0	16.3	11.6	0.0	0.0	0.0	0.0	21.4	0.0	7.5
LOS by Move:	A	B	A	B	B	A	A	A	A	C	A	A
HCM2k95thQ:	0	10	0	10	29	0	0	0	0	1	0	4

Note: Queue reported is the number of cars per lane.

Copyright (c) 2008 Dowling Associates, Inc.

Appendix I

VMT Assessment

Hexagon Transportation Consultants, Inc.

Memorandum

Date: March 19, 2021

To: Nick Pappani, Raney Planning & Management, Inc.

From: Robert Del Rio, T.E., Luis Descanzo

Subject: VMT Assessment for the Proposed Monterey-Madrone Residential Development in Morgan Hill, California

Hexagon Transportation Consultants, Inc. has completed a vehicle-miles traveled (VMT) assessment for the proposed affordable housing development at 18960 Monterey Road in Morgan Hill, California (APN: 726-36-059). The project site is located at the northeast corner of the intersection of Monterey Road and Madrone Parkway in Morgan Hill, California (see Figure 1). The project as proposed consists of the construction of 249 affordable apartment units, which includes three manager units, on the site that is currently occupied by a vehicle tow storage yard (see Figure 2 for site plan). The purpose of this memorandum is to provide an assessment of the project's effect on VMT. The VMT assessment methodology and results are discussed below.

VMT Assessment Methodology and Results

Pursuant to Senate Bill (SB) 743, the California Environmental Quality Act (CEQA) 2019 Update Guidelines Section 15064.3, subdivision (b) states that VMT will be the metric in analyzing transportation impacts for land use projects for CEQA purposes. VMT is the total miles of travel by personal motorized vehicles a project is expected to generate in a day. VMT measures the full distance of personal motorized vehicle-trips with one end within the project. Typically, development projects that are farther from other, complementary land uses (such as a business park far from housing) and in areas without transit or active transportation infrastructure (bike lanes, sidewalks, etc.) generate more driving than development near complementary land uses with more robust transportation options. Therefore, developments located in a central business district with high density and diversity of complementary land uses and frequent transit services are expected to internalize trips and generate shorter and fewer vehicle trips than developments located in a suburban area with low density of residential developments and no transit serve in the project vicinity.

The *Technical Advisory on Evaluating Transportation Impacts in CEQA* published by the Governor's Office of Planning and Research (OPR) in December 2018 provides recommendations regarding VMT evaluation methodology, significance thresholds, and screening thresholds for land use projects. The OPR screening thresholds recommendations are intended to identify when a project should be expected to cause a less-than-significant impact without conducting a detailed VMT evaluation. The OPR screening thresholds recommendations are based on project size, maps, transit availability, and provision of affordable housing. The OPR recommendations include the screening thresholds criteria listed below.

- OPR recommends that office or residential projects not exceeding a level of 15 percent below existing VMT per capita may indicate a less-than-significant impact on VMT.
- OPR recommends that projects (including office, residential, retail, and mixed-use developments) proposed within ½ mile of an existing major transit stop or within ¼ mile of an existing stop along a high-quality transit corridor may be presumed to have a less-than-significant impact on VMT.
- OPR recommends that 100 percent affordable residential development in infill locations be presumed to have a less-than-significant impact on VMT.
- OPR recommends that projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant impact on VMT.

The City of Morgan Hill, at the time of this report, is undertaking a process of updating its General Plan policies to incorporate VMT methodologies and significance thresholds to be consistent with SB 743 but has not released draft thresholds. In the absence of an adopted, or even draft, City policy with numeric thresholds, this assessment relies on OPR guidelines in analyzing the project's effects on VMT.

The proposed project would consist of 249 affordable housing apartment units. According to the OPR recommendations, since the proposed project would be a 100 percent affordable residential development it may be presumed to have a less-than-significant impact on VMT. The OPR guidelines state that adding affordable housing to infill locations generally improves jobs-housing match, in turn shortening commutes and reducing VMT. In addition, the OPR guidelines state that in areas where existing jobs-housing match is closer to optimal, low-income housing nevertheless generates less VMT than market-rate housing.

Furthermore, the pedestrian generators near the project vicinity would help support a reduced project VMT. Pedestrian generators in the project vicinity (within ¼ to 1-mile radius) include transit bus stops along Cochrane Road and Hale Avenue. These transit services would provide access to commercial uses (restaurant, retail, etc.) along Cochrane Road, Monterey Road and Downtown Morgan Hill, approximately 1.5 miles south of the project site. There are also many existing employment uses (light industrial and manufacturing) within walking distance of the site. As a result of the project proposing 100 percent affordable units and due to pedestrian generators located less than a 1-mile radius, it can be presumed that the project would have a less-than-significant impact on VMT.

Figure 1
Site Location

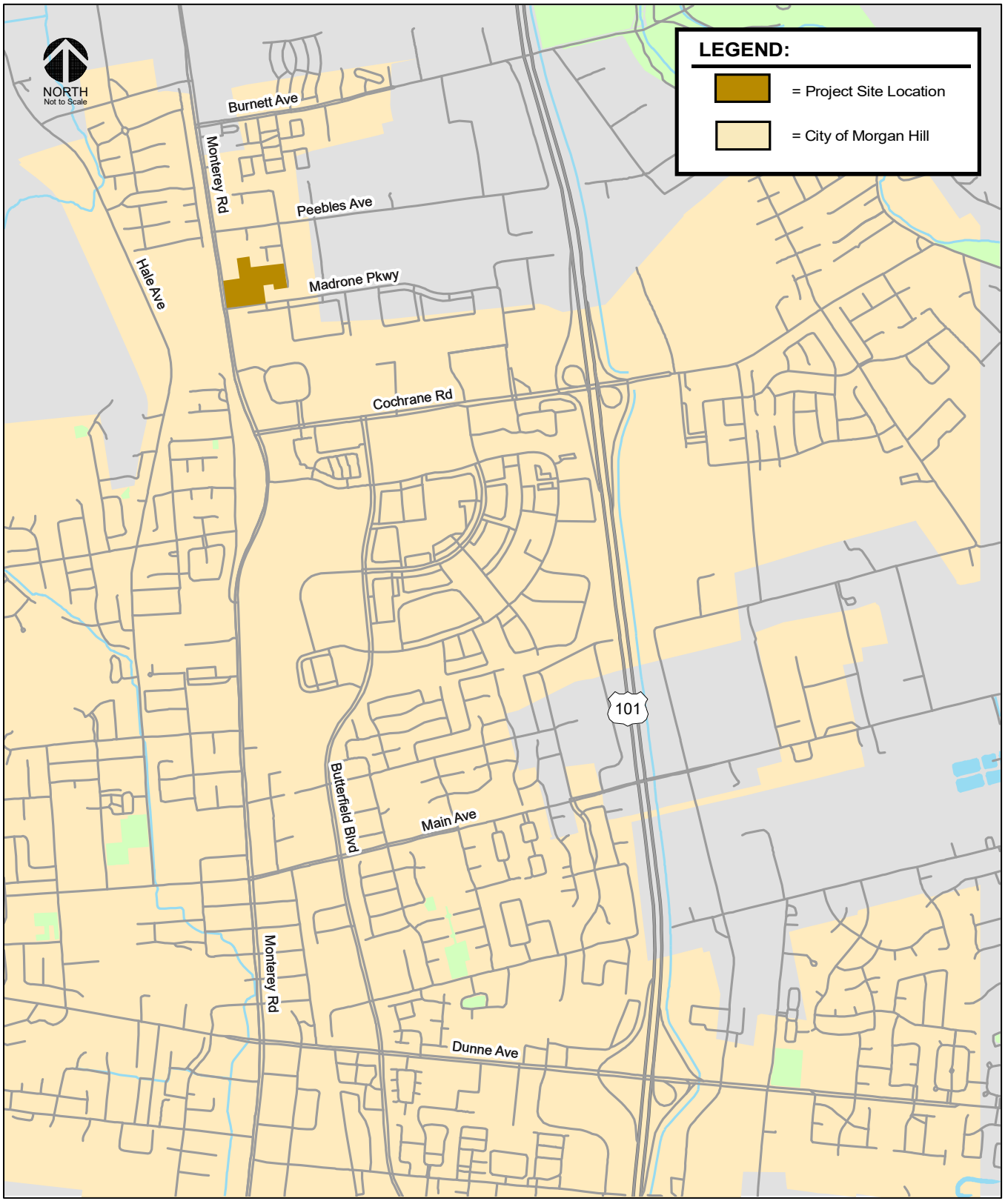


Figure 2
Site Plan

