PARTNER

PHASE II SUBSURFACE INVESTIGATION REPORT

APN 8126-033-025
Whittier, California 90603

March 7, 2022
Partner Project Number: 22-356922.1

Prepared for:

Robert Salamone Sr.
15111 Whittier Boulevard, Suite 450
Whittier, California 90603



Engineers who understand your business

PARTNER

March 7, 2022

Robert Salamone Sr.
15111 Whittier Boulevard, Suite 450
Whittier, California 90603

Subject: Phase II Subsurface Investigation Report
APN 8126-033-025
Whittier, California 90603
Partner Project Number: 22-356922.1

Dear Mr. Salamone Sr.:

Partner Engineering and Science, Inc. (Partner) is pleased to provide the results of the assessment performed at the above-referenced property. The following report describes the field activities, methods, and findings of the Phase II Subsurface Investigation conducted at the above-referenced property.

This assessment was performed consistent with acceptable industry standards. The independent conclusions represent Partner's best professional judgment based upon existing conditions and the information and data available to us during the course of this assignment.

We appreciate the opportunity to provide these services. If you have any questions concerning this report, or if we can assist you in any other matter, please contact Cody Taylor at 559-917-9700.

Sincerely,

Partner Engineering and Science, Inc.

Hernan Gutierrez
Project Scientist

Joe Mangine, PG
Senior Project Manager



Cody Taylor
National Client Manager

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1.0 INTRODUCTION

1.1 Purpose

The purpose of the investigation was to confirm the location of the former on-site oil well and/or other associated features and to evaluate the potential impact of petroleum hydrocarbons, volatile organic compounds (VOCs), metals, and/or methane to soil and/or soil gas as a consequence of a release or releases from the historical on-site oil well operations. Robert Salamone Sr. provided project authorization of Partner Proposal Number P22-356922.1

1.2 Limitations

This report presents a summary of work conducted by Partner. The work includes observations of site conditions encountered and the analytical results provided by an independent third-party laboratory of samples collected during the course of the project. The number and location of samples were selected to provide the required information. It cannot be assumed that the limited available data are representative of subsurface conditions in areas not sampled.

Conclusions and/or recommendations are based on the observations, laboratory analyses, and the governing regulations. Conclusions and/or recommendations beyond those stated and reported herein should not be inferred from this document.

Partner warrants that the environmental consulting services contained herein were accomplished in accordance with generally accepted practices in the environmental engineering, geology, and hydrogeology fields that existed at the time and location of work. No other warranties are implied or expressed.

1.3 User Reliance

Partner was engaged by Robert Salamone Sr. (the Addressee), or their authorized representative, to perform this investigation. The engagement agreement specifically states the scope and purpose of the investigation, as well as the contractual obligations and limitations of both parties. This report and the information therein, are for the exclusive use of the Addressee. This report has no other purpose and may not be relied upon, or used, by any other person or entity without the written consent of Partner. Third parties that obtain this report, or the information therein, shall have no rights of recourse or recovery against Partner, its officers, employees, vendors, successors or assigns. Any such unauthorized user shall be responsible to protect, indemnify and hold Partner, the Addressee and their respective officers, employees, vendors, successors and assigns harmless from any and all claims, damages, losses, liabilities, expenses (including reasonable attorneys' fees) and costs attributable to such use. Unauthorized use of this report shall constitute acceptance of, and commitment to, these responsibilities, which shall be irrevocable and shall apply regardless of the cause of action or legal theory pled or asserted.

This report has been completed under specific Terms and Conditions relating to scope, relying parties, limitations of liability, indemnification, dispute resolution, and other factors relevant to any reliance on this report. Any parties relying on this report do so having accepted Partner's standard Terms and Conditions, a copy of which can be found at http://www.partneresi.com/terms-and-conditions.php.

2.0 SITE BACKGROUND

2.1 Site Description

The subject property consists of one parcel of land comprising 1.74 acres located on the southwest side of Honolulu Terrace and the north side of Beverly Drive within a mixed residential, commercial, and industrial area of Whittier, Los Angeles County, California. The subject property is currently undeveloped vacant land.

The subject property is bound by residential and commercial/industrial properties to the north and east across Honolulu Terrace, residential properties to the south across Beverly Drive, and residential properties to the west. Refer to Figure 1 for a site vicinity map showing site features and surrounding properties.

2.2 Site History

Partner was provided with an EarthSafe Geological and Environmental Consulting (EarthSafe) *Environmental Investigation* for the subject property, dated January 25, 2021, on behalf of Steven Sayce. According to available historical sources, more than 90 years of oil well operations occurred on the eastern portion of the subject property. The eastern portion of the property had an oil well, a wash tank, a stock tank, an oil pick up pipe, an oil production, water disposal system draining the wash tank, and a spill containment berm. A 3,464 feet deep oil well, Chanchorena Number 1, API: 0403718425, was abandoned in 2020. Previous work done in 2004 revealed a release of crude oil in the eastern portion of the property. The western portion of the site was free of petroleum releases and has been protected by a spill containment berm. In 2020, EarthSafe conducted potholing in the vicinity of the former oil well and soil impacted with crude oil was observed at a depth of 5 feet below ground surface (bgs). A soil sample was collected which contained elevated concentrations of petroleum hydrocarbons, however VOCs were not detected. EarthSafe excavated impacted soil in the vicinity of the former oil well and oil tanks for off-site disposal and collected several rounds of confirmatory soil samples from the excavation limits until the laboratory results (as well as visual and olfactory evidence) indicated that the petroleum hydrocarbon-impacted soil had been adequately removed.

2.3 Geology and Hydrogeology

Review of the United States Geological Survey (USGS) *Whittier, California* Quadrangle topographic map indicates the subject property is situated approximately 440 feet above mean sea level, and the local topography is sloping gently to the southwest. Refer to Figure 2 for a topographic map of the site vicinity.

According to the California Geological Survey the subject property is situated in the Peninsular Ranges which are a series of ranges separated by northwest trending valleys, subparallel to faults branching from the San Andreas Fault. The trend of topography is similar to the Coast Ranges, but the geology is more like the Sierra Nevada, with granitic rock intruding the older metamorphic rocks. The Peninsular Ranges extend into lower California and are bound on the east by the Colorado Desert. The Los Angeles Basin and the island group (Santa Catalina, Santa Barbara, and the distinctly terraced San Clemente and San Nicolas islands), together with the surrounding continental shelf (cut by deep submarine fault troughs), are included in the province.

Based on borings advanced during this investigation, the underlying subsurface consists predominantly of dark brown, loose, damp, silty sand with gravel from the ground surface to approximately 15 feet bgs. Refer to Appendix A for boring logs from this investigation.

Groundwater was not encountered during this investigation and was not a part of the scope of work. According to the State Water Resources Control Board (SWRCB), a nearby Leaking Underground Storage Tank (LUST) site is T10000000561 at 10737 Beverly Boulevard in the city of Whittier, which is approximately 0.76 miles northwest of the subject property and is overseen by the Los Angeles Regional Water Quality Control Board (LARWQCB) as Case Number I-09407A. The site maintains twelve groundwater monitoring wells in the area. The most recent monitoring data available on the GeoTracker Website was for March 1, 2019, with depth to groundwater ranging from 86.72 to 124.7 feet bgs with an inferred direction of flow to the west.

3.0 FIELD ACTIVITIES

The Phase II Subsurface Investigation scope included a geophysical survey and the advancement of six borings (B1 through B6) to collect representative soil and/or soil gas samples. Refer to Table 1 for a summary of the borings, sampling schedule, and laboratory analyses for this investigation.

3.1 Preparatory Activities

Prior to the initiation of fieldwork, Partner completed the following activities.

3.1.1 Utility Clearance

Partner delineated the work area with white spray paint and notified Underground of Service Alert (USA) to clear public utility lines as required by law at least two business days prior to drilling activities. USA issued ticket number A220410978 for the project.

3.1.2 Health and Safety Plan

Partner prepared a site-specific Health and Safety Plan, which was reviewed with on-site personnel involved in the project prior to the commencement of drilling activities.

3.2 Geophysical Survey

On February 18, 2022, Ground Penetrating Radar Systems (GPRS) conducted a geophysical survey under the supervision of Partner. The purpose of the geophysical survey was to confirm the location of the former on-site oil well and/or other associated features and clear boring locations of utilities. The geophysical survey was conducted with a Radiodetection model RD7000 electromagnetic induction (EM) equipment unit with line-tracing capabilities, and a GSSI model SIR-3000 ground penetrating radar (GPR) unit. The data was interpreted in real time for evidence of utility lines and/or other subsurface features of potential concern. Based on the findings of the GPR survey, no subsurface utilities were identified within the proposed boring locations.

GPRS systematically free-traversed the eastern portion of the subject property to confirm the location of the former on-site oil well and/or associated features with the aforementioned equipment. The equipment data were interpreted in real time and compiled as necessary in order to identify subsurface anomalies consistent with oil wells, piping trenches, utility lines, and/or other subsurface conduits/features.

The geophysical survey identified one anomaly consistent with a removed oil well. Partner also visually identified the previous EarthSafe potholing which confirmed the vicinity of the former oil well. A number of abandoned pipes were visually observed throughout the northern portion of the subject property in the vicinity of the former oil aboveground storage tanks (ASTs). The purpose and origins of the junk pipes are unknown, but may have been associated with the on-site oil well and/or associated features.

In addition, GPRS systematically free-traversed each proposed boring location with the aforementioned equipment and the equipment data were interpreted in real time for evidence of utility lines and/or other subsurface features of potential concern. Based on the findings of the GPR survey, no subsurface utilities were identified within the proposed boring locations.

Refer to Figure 3 for a map of the area surveyed during the geophysical survey and the presumed location of the former oil well. Refer to Appendix B for a copy of the geophysical survey report, which provides additional details regarding the geophysical survey equipment and methodology.

3.3 Drilling Equipment

On February 18, 2022, Partner subcontracted with Muñoz Direct Push (MDP) to provide and operate drilling equipment. MDP, under the direction of Partner, advanced borings B1 through B6 with a limited-access Geoprobe Model 420M direct push rig. Sampling equipment was decontaminated between sample intervals and boring locations to prevent cross-contamination.

3.4 Sample Locations

Borings B1 and B2 were advanced in the vicinity of the former oil ASTs and former oil well, within the Residence 3 future building footprint, respectively. Borings B3 and B4 were advanced in the north and south portions of the Residence 4 future building footprint, respectively. Borings B5 and B6 were advanced in the central portions of Residence 1 and Residence 2 future building footprints, respectively.

Refer to Figure 3 for a map indicating sample locations.

3.5 Soil Sampling

Borings B1 through B6 were located in unimproved areas. Borings B1 through B6 were advanced to a terminal depth of 15 feet bgs.

Soil samples were collected using a 2-foot long by 1.5-inch diameter sampler with a 2-foot long acetate liner and sampling point. The sampler was advanced by the direct-push drill rig using 3-foot long by 1.25-inch diameter hollow rods with the inner rods in place. At approximately 1 foot above the desired sampling depth, an inner rod was removed and the sampler was advanced to the desired sampling depth to allow undisturbed soil to enter the sampling liner. The sampler was retrieved from the subsurface and the soil-filled liner was removed.

Each acetate liner was cut using a pipe-cutter. Samples were collected from the lower half of the liner using a disposable plastic syringe and retained in two sodium bisulfate-preserved and one methanol-preserved volatile organics analysis (VOA) vials in accordance with United States Environmental Protection Agency (EPA) Method 5035 sampling protocol. The remainder of the lower half of the liner was capped on either end with Teflon tape and plastic caps. The capped liners and VOA vials were labeled for identification and stored in an iced cooler. The soil in the upper half of the liner was visually inspected for discoloration, monitored for odors, classified in accordance with the Unified Soil Classification System, placed in a sealable plastic bag, and field-screened with a photoionization detector (PID). None of the samples exhibited an odor and none of the PID readings suggested the presence of elevated volatile organics concentrations.

Soil samples were collected from each boring at 2, 5, 10, and 15 feet bgs.

3.6 Soil Gas Sampling

Soil Gas Probe Construction

Soil gas probes screened at 5 feet bgs were constructed within the boreholes upon completion of soil sampling. Boreholes were backfilled with dry, granular bentonite to approximately 6 inches below the

desired sampling depth. A new section of ¼-inch diameter Nylaflow tubing with a new ¼-inch diameter polypropylene filter at the terminal end was inserted into the borehole to the desired sampling depth. One-inch diameter polyvinyl chloride (PVC) casing was used as a guide for the tubing to ensure that the desired sampling depth was achieved. Sand was poured into the boring annulus to form an approximately 1-foot long sand pack around the polypropylene filter, at which time the PVC piping was withdrawn. Approximately 1 foot of dry, granular bentonite was placed atop the sand pack and the remainder of the borehole was backfilled with hydrated bentonite to the ground surface to form a seal. The sampling end of the tubing was fitted with a valve and the probe was labeled for identification.

Soil Gas Sampling Methodology

Soil gas samples were collected in general accordance with the July 2015 Department of Toxic Substances Control (DTSC) and Los Angeles Regional Water Quality Control Board (LARWQCB) "Advisory – Active Soil Gas Investigations."

Soil gas samples were collected using 1-liter, stainless-steel, cylindrical SUMMA canisters. The sampling containers were provided by Jones Environmental, Inc. (JEI) a state-certified laboratory (California Department of Public Health Environmental Laboratory Accreditation Program certificate number 6C76103) in Santa Fe Springs, California, which subjected each canister to a rigorous cleaning process using a combination of dilution, heat, and high vacuum. After cleaning, the canisters were batch certified to be free of target contaminants to a specified reporting limit via gas chromatography/mass spectroscopy prior to delivery.

Partner received the SUMMA canisters evacuated to approximately minus 30 inches of mercury. The SUMMA canisters were fitted with stainless-steel flow controllers, which JEI calibrated to maintain constant flow (approximately 0.1 liter per minute) for approximately 5 to 10 minutes of sampling time.

Each probe was allowed to equilibrate for a minimum of two hours after installation prior to sampling. After equilibration, the sample tubing and sampler screen were purged of ambient air using an air pump. A Tracer gas mixture of n-pentane, n-heptane, and n-hexane was placed around each probe at the ground surface while sampling to detect ambient air intrusion. The tracer gas was not detected in any sample, indicating that the integrity of the bentonite seal was maintained. Once the sampling tubing was purged of ambient air, the sampling end of the tubing was fitted to the sampling canister and the port valve was opened, causing air to enter the sample container due to the pressure differential. Partner closed the valves after the canister was evacuated to minus 5 inches of mercury, with pertinent data (e.g., time, canister vacuum) recorded at the start and end of sampling.

Partner successfully connected individual 1-liter SUMMA canisters to each sampling point. The SUMMA canisters were labeled for identification and stored away from direct sunlight prior to analysis.

Soil gas samples were collected from each boring at 5 feet bgs.

Upon completion of soil gas sampling, each probe was additionally field screened for methane and barometric pressure using a GEM 5000 Gas Analyzer.

3.7 Post-Sampling Activities

Probes were removed from the subsurface and the boreholes were backfilled with hydrated bentonite chips following sampling activities. Boreholes advanced in improved areas were capped with asphalt patch to match existing ground cover after being backfilled.

No significant amounts of derived wastes were generated during this investigation.

4.0 DATA ANALYSIS

4.1 Laboratory Analysis

Partner collected 24 soil samples and six soil gas samples on February 18, 2022, which were transported in an iced cooler (soil samples) or at ambient temperature (soil gas samples) under chain-of-custody protocol to JEI for analysis. Based on field-screening results, visual observations, and/or olfactory observations, one soil sample per boring (six soil samples total) was analyzed for carbon chain total petroleum hydrocarbons (TPH-cc) [collectively total petroleum hydrocarbons as diesel and oil (TPH-d and TPH-o, respectively) via United States Environmental Protection Agency (EPA) Method 8015M and total petroleum hydrocarbons as gasoline (TPH-g) via EPA Method 8260B], VOCs via EPA Method 8260B, and for California Administrative Manual (CAM) 17 metals via EPA Method 6010/7471. Each soil gas sample (six soil gas samples total) was analyzed for VOCs via EPA Method 8260B. The remaining soil samples were placed on hold at the laboratory.

Laboratory analytical results are included in Appendix C and discussed below.

4.2 Regulatory Agency Comparison Criteria

Environmental Screening Levels

The San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) has established Environmental Screening Levels (ESLs) as an initial screening level evaluation. ESLs aid in assessing the potential threats to human health, terrestrial/aquatic habitats, and/or drinking water resources due to contaminants in soil, soil gas, and/or groundwater. Under most circumstances, the presence of contamination below applicable ESLs can be assumed to not pose a significant, chronic (i.e., long-term) adverse risk to the applicable receptor of concern. Conversely, sites that exceed ESLs generally require further evaluation and/or remediation. Please note that the ESLs were developed using default assumptions (e.g., standard exposure factors) and, consequently, are only meant for screening level assessments. The ESLs should not be considered enforceable regulatory standards. Cleanup levels ultimately dependent on site-specific factors and are established by the regulatory agencies on a case-by-case basis.

Department of Toxic Substances Control Attenuation Factor and Regional Screening Levels

Regional Screening Levels (RSLs) are generic, risk-based chemical concentrations developed by the EPA for use in initial screening-level evaluations. RSLs combine human health toxicity values with standard exposure factors to estimate contaminant concentrations that are considered to be health protective of human exposures over a lifetime through direct-contact exposure pathways (e.g., via inhalation and/or ingestion of and/or dermal contact with impacted soil and/or indoor air). RSLs are not legally enforceable standards, but rather are considered guidelines to evaluate if potential risks associated with encountered chemical impacts may warrant further evaluation.

The DTSC Office of Human and Ecological Risk (HERO) developed California-Modified RSLs based on a review of 1) RSL concentrations, and 2) recent toxicity values.

While soil gas detections are not immediately comparable to the indoor air quality guidelines within the RSLs, the DTSC issued a recommended default attenuation factor of 0.03 for sub-slab soil gas and near-source exterior soil gas in the June 2015 document *Office of Solid Waste and Emergency Response (OSWER)*

Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air. With the subsurface contaminant concentrations and default attenuation factors, the associated contaminant concentrations in soil gas can be estimated as Calculated Residential and Commercial/Industrial Soil Gas Screening Levels (SGSLs).

4.3 Soil Sample Data Analysis

TPH-d and TPH-o was detected in one of the six analyzed soil samples (B1-5) at concentrations above laboratory reporting limits (RLs). The detected concentrations of TPH-d and TPH-o do not exceed applicable ESLs. TPH-g was not detected in the analyzed soil samples at concentrations above the laboratory RL, and the RL is below the ESL.

The VOCs ethylbenzene, 4-isopropyltoluene, and toluene were detected in one of the six analyzed soil samples (B2-10) at concentrations above laboratory RLs. The detected VOC concentrations do not exceed applicable ESLs. None of the remaining VOCs were detected in the analyzed soil samples at concentrations above laboratory RLs and the RLs are below applicable ESLs.

Various metals including arsenic, barium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, silver, vanadium, and zinc were detected in the analyzed soil samples at concentrations above laboratory RLs. None of the remaining metals were detected in the analyzed soil samples at concentrations above laboratory RLs.

Arsenic was detected in one of the analyzed soil samples (B2-10) at a concentration exceeding the ESL, but below the regional background concentration of 12 milligram per kilogram (mg/kg) as based on the DTSC March 2008 report *Determination of a Southern California Regional Background Arsenic Concentration in Soil*.

Additionally, barium, cadmium, molybdenum, and vanadium were detected in one or more of the analyzed soil samples at concentrations exceeding applicable ESLs and/or regional background concentrations for typical California soils as based on the *Kearney Foundation of Soil Science March 1996 Background Concentrations of Trace and Major Elements in California Soils Report*.

Based on the findings, the soil samples placed on hold at the laboratory were not analyzed.

Refer to Tables 2 through 4 for a summary of the soil sample TPH-cc, VOCs, and CAM17 Metals laboratory analysis results, respectively.

4.4 Soil Gas Sample Data Analysis

Various VOCs including benzene, tert-butylbenzene, chloroform, ethylbenzene, isopropylbenzene, 4-isopropyltoluene, n-propylbenzene, styrene, tetrachloroethene (PCE), toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, m,p-xylene, and o-xylene were detected in the analyzed soil gas samples at concentrations above the laboratory RLs. Of these, the following detections exceed the residential and/or commercial/industrial SGSLs:

- The detected concentration of benzene in soil gas sample B1-SG was 11 micrograms per cubic meter (µg/m^3), which exceeds the residential SGSL of 3.2 µg/m^3. The detected concentrations of benzene in soil gas samples B2-SG, B3-SG, B5-SG, and B6-SG ranged from 15 to 60 µg/m^3, which exceed the residential SGSL and the commercial/industrial SGSL of 14 µg/m^3.

- The detected concentration of chloroform in soil gas sample B1-SG was 9.0 µg/m³, which exceeds the residential SGSL of 4.0 µg/m³, but below the commercial/industrial SGSL of 18 µg/m³.

  Partner notes that trihalomethanes (THMs) (including bromoform, bromodichloromethane, dibromochloromethane, and chloroform) are formed in drinking water primarily as a result of the chlorination of organic matter present naturally in raw water supplies. The rate and degree of THM formation increases as a function of the chlorine and humic acid concentration; the temperature; the pH; and the bromide ion concentration. Chloroform is the most common THM, and the principal disinfection by-product (DBP) in chlorinated drinking water. In the presence of bromides, brominated THMs are formed preferentially and chloroform concentrations decrease proportionally. It is assumed that most THMs present in water are ultimately transferred to air as a result of their volatility. That said, it is Partner's opinion that the chloroform detected in the soil gas sample is likely attributable to leaking water lines in the site vicinity.

- The detected concentration of ethylbenzene in soil gas sample B4-SG was 98 µg/m³, which exceeds the residential SGSL of 37 µg/m³. The detected concentrations of ethylbenzene in soil gas samples B1-SG, B2-SG, B3-SG, and B5-SG ranged from 198 to 3,260 µg/m³, which exceed the residential SGSL and the commercial/industrial SGSL of 163 µg/m³. Peak concentrations were detected in the sample (B2-SG) collected from the former oil well area in the south portion of Residence 3 future building footprint.
- The detected concentration of PCE in soil gas sample B1-SG was 20 µg/m³, which exceeds the residential SGSL of 15 µg/m³, but below the commercial/industrial SGSL of 67 µg/m³.
- The detected concentration m,p-xylene in soil gas sample B2-SG was 15,500 µg/m³, which exceeds the residential SGSL of 3,333 µg/m³ and commercial/industrial SGSL of 14,667 µg/m³.
- The detected concentration o-xylene in soil gas sample B2-SG was 5,790 µg/m³, which exceeds the residential SGSL of 3,333 µg/m³, but below the commercial/industrial SGSL of 14,667 µg/m³.

None of the remaining VOCs detected in soil gas exceed applicable SGSLs. Additionally, no other VOCs were detected above laboratory RLs and the laboratory RLs are below respective SGSLs.

Methane was not detected in the soil gas probes at concentrations above the detection limit of the GEM 5000 Gas Analyzer, and the detection limit was below the applicable screening level.

Refer to Table 5 for a summary of the soil gas sample VOCs laboratory analysis results.

4.5 Discussion

TPH-cc and VOCs were detected in the analyzed soil samples at concentrations below regulatory screening criteria. Arsenic was detected in one of the analyzed soil samples at a concentration exceeding regulatory screening criteria, but below the regional background concentration. Barium, cadmium, molybdenum, and vanadium were detected in one or more of the analyzed soil samples at concentrations exceeding regulatory screening criteria and/or regional background concentrations

VOC impacts were identified in soil gas beneath the subject property and the impacts appear to be widespread. Various VOCs (including benzene, ethylbenzene, xylenes, and PCE) were detected in soil gas at

concentrations exceeding regulatory screening criteria. As such, a potential vapor intrusion concern exists for the occupants of future buildings located in areas with identified regulatory exceedances in soil gas.

5.0 SUMMARY AND CONCLUSIONS

Partner conducted a Phase II Subsurface Investigation at the subject property confirm the location of the former on-site oil well and/or other associated features and to evaluate the potential impact of petroleum hydrocarbons, VOCs, metals, and/or methane to soil and/or soil gas as a consequence of a release or releases from the historical on-site oil well operations. The scope of the Phase II Subsurface Investigation included a geophysical survey and the advancement of six soil borings. Six soil samples were analyzed for TPH-cc, VOCs, CAM 17 Metals, and six soil gas samples were analyzed for VOCs and methane.

The geophysical survey identified one anomaly consistent with a removed oil well. Partner also visually identified the previous EarthSafe potholing which confirmed the vicinity of the former oil well.

Subsurface lithology encountered in the upper 15 feet bgs consisted of silty sand. Groundwater was not encountered during this investigation.

TPH-cc and VOCs were detected in the analyzed soil samples at concentrations below regulatory screening criteria. Arsenic was detected in one of the analyzed soil samples at a concentration exceeding regulatory screening criteria, but below the regional background concentration. Barium, cadmium, molybdenum, and vanadium were detected in one or more of the analyzed soil samples at concentrations exceeding regulatory screening criteria and/or regional background concentrations

VOC impacts were identified in soil gas beneath the subject property and the impacts appear to be widespread. Various VOCs (including benzene, ethylbenzene, xylenes, and PCE) were detected in soil gas at concentrations exceeding regulatory screening criteria. As such, a potential vapor intrusion concern exists for the occupants of future buildings located in areas with identified regulatory exceedances in soil gas.

Based on the planned residential development for the subject property, Partner recommends additional steps to further evaluate and/or mitigate the potential vapor intrusion concern. Partner also recommends development and implementation of a Soil Management Plan to address potential impacts and/or other unidentified subsurface features which may be encountered during future redevelopment activities at the subject property.

TABLES

Table 1: Summary of Investigation Scope
APN 8126-033-025
Whittier, California 90603
Partner Project Number 22-356922.1
February 18, 2022

Boring Identification	REC/Issue	Location	Terminal Depth (feet bgs)	Matrix Sampled	Sampling Depths* (feet bgs)	Target Analytes
B1	Former on-site oil well operations	Former oil AST area in the north portion of Residence 3 future building footprint	15	Soil Gas	5	VOCs, Methane
				Soil	2, 5, 10, 15	TPH-cc, VOCs, Metals
B2		Former oil well area in the south portion of Residence 3 future building footprint	15	Soil Gas	5	VOCs, Methane
				Soil	2, 5, 10, 15	TPH-cc, VOCs, Metals
B3		North portion of Residence 4 future building footprint	15	Soil Gas	5	VOCs, Methane
				Soil	2, 5, 10, 15	TPH-cc, VOCs, Metals
B4		South portion of Residence 4 future building footprint	15	Soil Gas	5	VOCs, Methane
				Soil	2, 5, 10, 15	TPH-cc, VOCs, Metals
B5		Central portion of Residence 1 future building footprint	15	Soil Gas	5	VOCs, Methane
				Soil	2, 5, 10, 15	TPH-cc, VOCs, Metals
B6		Central portion of Residence 2 future building footprint	15	Soil Gas	5	VOCs, Methane
				Soil	2, 5, 10, 15	TPH-cc, VOCs, Metals

Notes:
*Depths in bold analyzed for carbon chain total petroleum hydrocarbons (TPH-cc) [collectively total petroleum hydrocarbons as diesel and oil (TPH-d and TPH-o, respectively) via United States Environmental Protection Agency (EPA) Method 8015M and total petroleum hydrocarbons as gasoline (TPH-g) via EPA Method 8260B], volatile organic compounds (VOCs) via EPA Method 8260B, and for California Administrative Manual (CAM) 17 Metals via EPA Method 6010B/7471A. Each soil gas sample was analyzed for VOCs via EPA Method 8260B and for methane using field instruments (GEM 5000 Gas Analyzer)
REC = recognized environmental condition
bgs = below ground surface
AST = aboveground storage tank

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Table 2: Soil Sample TPH-cc Laboratory Results
APN 8126-033-025
Whittier, California 90603
Partner Project Number 22-356922.1
February 18, 2022

EPA Method	TPH-cc via 8015M/8260B						
Units	(mg/kg)						
Analyte	ESL	B1-5	B2-10	B3-5	B4-5	B5-15	B6-10
TPH-g	100	<20	<20	<20	<20	<20	<20
TPH-d	260	109	<10	<10	<10	<10	<10
TPH-o	1,600	1,430	<10	<10	<10	<10	<10

Notes:

TPH-cc = carbon chain total petroleum hydrocarbons

EPA = United States Environmental Protection Agency

TPH-g = total petroleum hydrocarbons as gasoline

TPH-d = total petroleum hydrocarbons as diesel

TPH-o = total petroleum hydrocarbons as oil

mg/kg = milligrams per kilogram

ESL = Environmental Screening Level (San Francisco Bay Regional Water Quality Control Board) - Tier 1 ESLs 2019 (Rev.2)

< = not detected at or above indicated laboratory Reporting Limit (RL)

Values in bold exceed laboratory RLs

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Table 3: Soil Sample VOCs Laboratory Results
APN 8126-033-025
Whittier, California 90603
Partner Project Number 22-356922.1
February 18, 2022

EPA Method	VOCs via 8260B						
Units	(µg/kg)						
Analyte	ESL	B1-5	B2-10	B3-5	B4-5	B5-15	B6-10
Ethylbenzene	430	<1.0	4.3	<1.0	<1.0	<1.0	<1.0
4-Isopropyltoluene	NE	<1.0	2.3	<1.0	<1.0	<1.0	<1.0
Toluene	3,200	<1.0	1.8	<1.0	<1.0	<1.0	<1.0
Other VOCs	Varies	ND	ND	ND	ND	ND	ND

Notes:

VOCs = volatile organic compounds

EPA = United States Environmental Protection Agency

µg/kg = micrograms per kilogram

ESL = Environmental Screening Level (San Francisco Bay Regional Water Quality Control Board) - Tier 1 ESLs 2019 (Rev.2)

< = not detected at or above indicated laboratory Reporting Limit (RL)

ND = not detected at or above laboratory RL

NE = not established

Values in bold exceed laboratory RLs

PARTNER

Table 4: Soil Sample CAM 17 Metals Laboratory Results (mg/kg)
APN 8126-033-025
Whittier, California 90603
Partner Project Number 22-356922.1
February 18, 2022

Element	ESL	Background Concentrations*	B1-5	B2-10	B3-5	B4-5	B5-15	B6-10
Antimony (Sb)	11	0.21 - 0.99	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Arsenic (As)	0.067	12**	<5.0	7.6	<5.0	<5.0	<5.0	<5.0
Barium (Ba)	390	299 - 719	107	1,870	255	198	157	140
Beryllium (Be)	5.0	0.76 - 1.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cadmium (Cd)	1.9	0.05 - 0.67	1.8	2.3	2.3	2.7	8.9	1.8
Chromium (Cr)	120,000	0 - 345	44.2	25.4	22.8	9.8	15.6	13.6
Cobalt (Co)	23	5.7 - 24.1	8.0	9.4	7.3	8.4	4.4	7.7
Copper (Cu)	180	9.4 - 48	20.2	30.8	24.2	24.7	15.2	16.5
Lead (Pb)	32	10.1 - 37.7	14.8	5.3	4.6	3.9	<0.5	10.1
Mercury (Hg)	13	0.05 - 0.47	0.055	0.037	0.071	0.068	0.050	0.038
Molybdenum (Mo)	6.9	0 - 2.8	2.3	12.4	1.7	3.6	2.9	0.9
Nickel (Ni)	86	0 - 137	29.1	35	18.9	36.6	38.8	13.4
Selenium (Se)	2.4	0 - 0.142	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Silver (Ag)	25	0 - 2.23	<0.5	<0.5	<0.5	<0.5	1.2	<0.5
Thallium (Tl)	0.78	0.37 - 0.75	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vanadium (V)	18	59 - 165	35.7	75	46.7	66.4	49.3	29.6
Zinc (Zn)	340	117 - 181	68	71.2	53.7	62.8	36.9	45.9

Notes:

*From Kearney Foundation of Soil Science March 1996 report *Background Concentrations of Trace and Major Elements in California Soils.* Background concentrations of metals are considered to be within one standard deviation from the mean metal concentrations determined by the study. Concentrations indicated in milligrams per kilogram (mg/kg).

**From Department of Toxic Substance Control (DTSC) March 2008 report *Determination of a Southern California Regional Background Arsenic Concentration in Soil* .

CAM = California Administrative Manual

ESL = Environmental Screening Level (San Francisco Bay Regional Water Quality Control Board) - Tier 1 ESLs 2019 (Rev.2)

< = not detected at or above indicated laboratory Reporting Limit (RL)

Values in bold exceed laboratory RLs

Highlighted values exceed one or more regulatory guidelines

PARTNER

Table 5: Soil Gas Sample VOCs Laboratory Results
APN 8126-033-025
Whittier, California 90603
Partner Project Number 22-356922.1
February 18, 2022

EPA Method	VOCs via 8260B							
Units	($\mu g/m^3$)							
Analyte	Residential SGSL^	Commercial/ Industrial SGSL^	B1-SG	B2-SG	B3-SG	B4-SG	B5-SG	B6-SG
Benzene	3.2	14	11	15	18	<8.0	60	26
Tert-Butylbenzene	14,000	60,000	<12	<12	27	96	<12	<12
Chloroform	4.0	18	9.0	<8.0	<8.0	<8.0	<8.0	<8.0
Ethylbenzene	37	163	198	3,260	400	98	201	35
Isopropylbenzene	14,000	60,000	<8.0	100	1,300	22	<8.0	<8.0
4-Isopropyltoluene	NE	NE	<8.0	<8.0	219	56	<8.0	<8.0
n-Propylbenzene	NE	NE	<8.0	21	<8.0	<8.0	18	21
Styrene	31,333	130,000	<8.0	<8.0	<8.0	40	63	<8.0
PCE	15	67	20	9.0	<8.0	<8.0	<8.0	<8.0
Toluene	10,333	43,333	46	56	57	9.0	298	110
1,2,4-Trimethylbenzene	2,100	8,667	11	36	21	20	80	210
1,3,5-Trimethylbenzene	2,100	8,667	<8.0	<8.0	<8.0	<8.0	12	61
m,p-Xylene	3,333	14,667	866	15,500	1,710	516	939	204
o-Xylene	3,333	14,667	304	5,790	600	222	368	90
Other VOCs	Varies	Varies	ND	ND	ND	ND	ND	ND

Notes:

^Calculated soil gas screening levels (SGSLs) for soil gas concentrations were derived by dividing the June 2020 Department of Toxic Substances Control (DTSC) or November 2021 United States Environmental Protection Agency (EPA) Regional Screening Level (RSL) for each compound using the more conservative 2015 attenuation factor of 0.03 regardless of depth. DTSC RSLs are provided in the June 2020 DTSC Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Note 3. Where DTSC RSLs were not available, EPA RSLs were utilized.

VOCs = volatile organic compounds

EPA = United States Environmental Protection Agency

$\mu g/m^3$ = micrograms per cubic meter

PCE = tetrachloroethene

< = not detected at or above indicated laboratory Reporting Limit (RL)

ND = not detected at or above laboratory RLs

NE = not established

Values in bold exceed laboratory RLs

Highlighted values exceed residential regulatory guideline

Highlighted values exceed commercial/industrial and residential regulatory guidelines

PARTNER

FIGURES

PARTNER



PARTNER
2154 Torrance Boulevard, Suite 200
Torrance, California 90501
Project Number: 22-356922.1

N

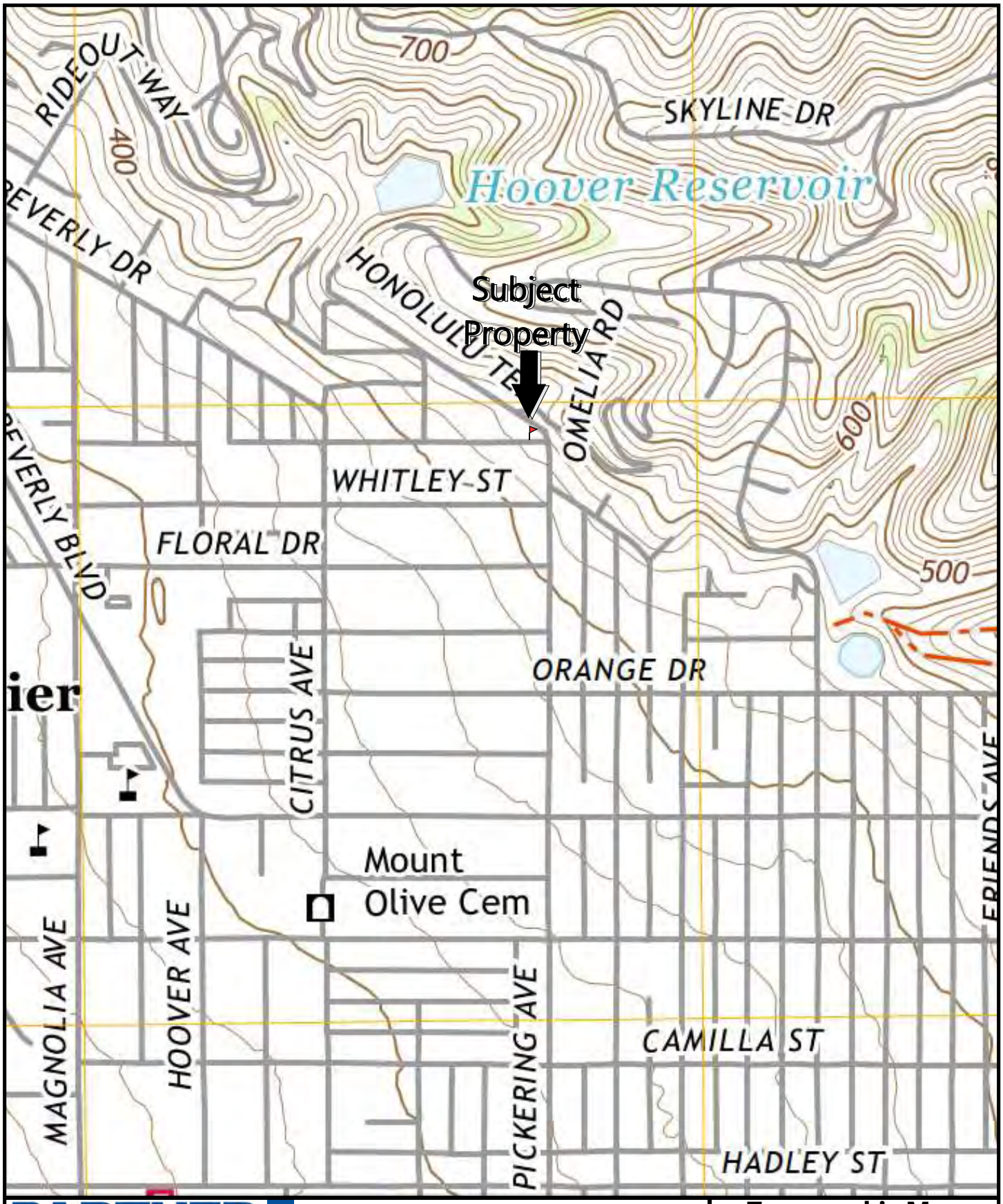
Legend

Subject Property

Site Vicinity Map

Figure	Prepared By	Date
1	H. Gutierrez	March 2022

APN 8126-033-025
Whittier, California 90603



PARTNER

2154 Torrance Boulevard, Suite 200
Torrance, California 90501

Project Number: 22-356922.1

N

USGS *Whittier, California* Quadrangle
Version: 2021 Current as of: 2019

Topographic Map

Figure	Prepared By	Date
2	H. Gutierrez	March 2022

APN 8126-033-025
Whittier, California 90603

APPENDIX A: BORING LOGS

PARTNER

Boring Identification:	B1		Page 1 of 1
Boring Location:	Former oil AST area in the north portion of Residence 3 future building footprint		
Site Address:	APN 8126-033-025	Date Started and Completed:	2/18/2022
	Whittier, California 90603	Depth to Groundwater (feet bgs):	NA
Project Number:	22-356922.1	Field Technician:	H. Gutierrez
Drill Rig Type:	Limited Access Geoprobe 420M Direct Push Rig	PARTNER	
Sampling Equipment:	Acetate Liner, VOAs	2154 Torrance Boulevard	
Borehole Diameter:	2.25 Inches	Torrance, California 90504	

Depth	Sample	PID	USCS	Description	Notes
1					Unimproved surface cover
2	B1-2	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	
3					
4					
5	B1-5	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	Soil gas probe installed
6					
7					
8					
9					
10	B1-10	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	
11					
12					
13					
14					
15	B1-15	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	
16					Boring terminated at 15 feet bgs. Groundwater was not encountered. Probe was removed and borehole was backfilled with hydrated bentonite and capped at surface with concrete to match existing ground cover.
17					
18					
19					
20					
21					
22					
23					
24					
25					

Boring Identification:	B2			Page 1 of 1	
Boring Location:	Former oil well area in the south portion of Residence 3 future building footprint				
Site Address:	APN 8126-033-025			Date Started and Completed:	2/18/2022
	Whittier, California 90603			Depth to Groundwater (feet bgs):	NA
Project Number:	22-356922.1			Field Technician:	H. Gutierrez
Drill Rig Type:	Limited Access Geoprobe 420M Direct Push Rig			PARTNER	
Sampling Equipment:	Acetate Liner, VOAs			2154 Torrance Boulevard	
Borehole Diameter:	2.25 Inches			Torrance, California 90504	

Depth	Sample	PID	USCS	Description	Notes
1					Unimproved surface cover
2	B2-2	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	
3					
4					
5	B2-5	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	Soil gas probe installed
6					
7					
8					
9					
10	B2-10	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	
11					
12					
13					
14					
15	B2-15	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	
16					Boring terminated at 15 feet bgs. Groundwater was not encountered. Probe was removed and borehole was backfilled with hydrated bentonite and capped at surface with concrete to match existing ground cover.
17					
18					
19					
20					
21					
22					
23					
24					
25					

Boring Identification:	B3			Page 1 of 1	
Boring Location:	North portion of Residence 4 future building footprint				
Site Address:	APN 8126-033-025			Date Started and Completed:	2/18/2022
	Whittier, California 90603			Depth to Groundwater (feet bgs):	NA
Project Number:	22-356922.1			Field Technician:	H. Gutierrez
Drill Rig Type:	Limited Access Geoprobe 420M Direct Push Rig			PARTNER	
Sampling Equipment:	Acetate Liner, VOAs			2154 Torrance Boulevard	
Borehole Diameter:	2.25 Inches			Torrance, California 90504	

Depth	Sample	PID	USCS	Description	Notes
1					Unimproved surface cover
2	B3-2	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	
3					
4					
5	B3-5	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	Soil gas probe installed
6					
7					
8					
9					
10	B3-10	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	
11					
12					
13					
14					
15	B3-15	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	
16					Boring terminated at 15 feet bgs. Groundwater was not encountered. Probe was removed and borehole was backfilled with hydrated bentonite and capped at surface with concrete to match existing ground cover.
17					
18					
19					
20					
21					
22					
23					
24					
25					

Boring Identification:	B4			Page 1 of 1	
Boring Location:	South portion of Residence 4 future building footprint				
Site Address:	APN 8126-033-025			Date Started and Completed:	2/18/2022
	Whittier, California 90603			Depth to Groundwater (feet bgs):	NA
Project Number:	22-356922.1			Field Technician:	H. Gutierrez
Drill Rig Type:	Limited Access Geoprobe 420M Direct Push Rig			PARTNER	
Sampling Equipment:	Acetate Liner, VOAs			2154 Torrance Boulevard	
Borehole Diameter:	2.25 Inches			Torrance, California 90504	

Depth	Sample	PID	USCS	Description	Notes
1					Unimproved surface cover
2	B4-2	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	
3					
4					
5	B4-5	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	Soil gas probe installed
6					
7					
8					
9					
10	B4-10	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	
11					
12					
13					
14					
15	B4-15	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	
16					Boring terminated at 15 feet bgs. Groundwater was not encountered. Probe was removed and borehole was backfilled with hydrated bentonite and capped at surface with concrete to match existing ground cover.
17					
18					
19					
20					
21					
22					
23					
24					
25					

Boring Identification:	B5			Page 1 of 1	
Boring Location:	Central portion of Residence 1 future building footprint				
Site Address:	APN 8126-033-025			Date Started and Completed:	2/18/2022
	Whittier, California 90603			Depth to Groundwater (feet bgs):	NA
Project Number:	22-356922.1			Field Technician:	H. Gutierrez
Drill Rig Type:	Limited Access Geoprobe 420M Direct Push Rig			PARTNER	
Sampling Equipment:	Acetate Liner, VOAs			2154 Torrance Boulevard	
Borehole Diameter:	2.25 Inches			Torrance, California 90504	

Depth	Sample	PID	USCS	Description	Notes
1					Unimproved surface cover
2	B5-2	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	
3					
4					
5	B5-5	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	Soil gas probe installed
6					
7					
8					
9					
10	B5-10	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	
11					
12					
13					
14					
15	B5-15	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	
16					Boring terminated at 15 feet bgs. Groundwater was not encountered. Probe was removed and borehole was backfilled with hydrated bentonite and capped at surface with concrete to match existing ground cover.
17					
18					
19					
20					
21					
22					
23					
24					
25					

Boring Identification:	B6			Page 1 of 1	
Boring Location:	Central portion of Residence 2 future building footprint				
Site Address:	APN 8126-033-025			Date Started and Completed:	2/18/2022
	Whittier, California 90603			Depth to Groundwater (feet bgs):	NA
Project Number:	22-356922.1			Field Technician:	H. Gutierrez
Drill Rig Type:	Limited Access Geoprobe 420M Direct Push Rig			PARTNER	
Sampling Equipment:	Acetate Liner, VOAs			2154 Torrance Boulevard	
Borehole Diameter:	2.25 Inches			Torrance, California 90504	

Depth	Sample	PID	USCS	Description	Notes
1					Unimproved surface cover
2	B6-2	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	
3					
4					
5	B6-5	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	Soil gas probe installed
6					
7					
8					
9					
10	B6-10	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	
11					
12					
13					
14					
15	B6-15	0.0	SM	Dark brown, SILTY SAND with gravel, loose, damp, orange oxidation staining, no odors	
16					Boring terminated at 15 feet bgs. Groundwater was not encountered. Probe was removed and borehole was backfilled with hydrated bentonite and capped at surface with concrete to match existing ground cover.
17					
18					
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20					
21					
22					
23					
24					
25					

APPENDIX B: GEOPHYSICAL SURVEY REPORT

PARTNER

Summary of Scanning for Former Oil Well

Prepared For: Partner Engineering & Science

Prepared By:
Ivan Merrill
ivan.merrill@gprsinc.com
Senior Project Manager|Southern California
562.665.7267
February 18th, 2022

February 18th , 2022

Partner Engineering & Science
Attn: Hernan Gutierezz
Site: Beverly Dr & Honolulu Terrace, Whittier CA 90601

We appreciate the opportunity to provide this report for our work completed February 18th, 2022.

PURPOSE

The purpose of this project was to search for suspected former oil well and other anomalies or possible excavation areas remaining on the property. The scope of work consisted of scanning accessible areas of the property for former oil well and/or excavations as shown in the map on page (4) as well as clear six proposed borings.

EQUIPMENT

•**Underground Scanning GPR Antenna.** The antenna with frequencies ranging from 250 MHz-450 MHz is mounted in a stroller frame which rolls over the surface. The surface needs to be reasonably smooth and unobstructed to obtain readable scans. Obstructions such as curbs, landscaping, and vegetation will limit the feasibility of GPR. The data is displayed on a screen and marked in the field in real time. The total depth achieved can be as much as 8' or more with this antenna but can vary widely depending on the types of materials being scanned through. Some soil types such as clay may limit maximum depths to 3' or less. As depth increases, targets must be larger to be detected and non-metallic targets can be especially difficult to locate. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link

•**Electromagnetic Pipe Locator.** The EM locator can passively detect the electromagnetic fields from live AC power or from radio signals travelling along some conductive utilities. It can also be used in conjunction with a transmitter to connect directly to accessible, metallic pipes or tracer wires. A current is sent through the pipe or tracer wire at a specific frequency and the resulting EM field can then be detected by the receiver. A utility's ability to be located depends on a variety of factors including access to the utility, conductivity, grounding, interference from other fields, and many others. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link

•**Magnetometer.** The magnetometer detects the magnetic field of a ferromagnetic object. It responds to the difference in the magnetic field between two sensors. It is interpreted in the field by listening to changes in frequency as emitted by a speaker on the device. Larger metallic objects can be located at depths of up to 10' or more but total depths will depend on the size, type, shape, and orientation of objects along with the amount of interference from other objects. For more information, please visit: Link

PROCESS

The ***EM pipe locator*** was used to connect to accessible, traceable pipes that may be tank-related such as vent pipes or product lines. A current is induced onto the pipe which creates an electromagnetic field that can be traced using the receiver. We can then attempt to trace these pipes to their origin or end point and paint or flag their locations.

Initial ***GPR*** scans were collected to evaluate the data and calibrate the equipment. Based on these findings, a scanning strategy is formed, consisting of scanning the entire area in a grid with 3'-5' scan spacing to locate any potential USTs that may remain at the site. The GPR data is viewed in real time and anomalies in the data were located and marked on the surface along with their depths using (pink) water-based marking paint. Relevant scan examples were saved and will be provided in this report.

The ***magnetometer*** was used to sweep the site every 3'-5' to search for readings that may represent buried, ferrous objects. Upon detection, the readings will be marked on the surface and then investigated from multiple directions and with other methods such as GPR.

LIMITATIONS

Please keep in mind that there are limitations to any subsurface investigation. The equipment may not achieve maximum effectiveness due to conditions in the concrete or soil such as moisture content, age of the concrete, reinforcing size and spacing, and a variety of other factors. Depths are dependent on many factors so depth accuracy can vary throughout a site and should be treated as estimates only. No subsurface investigation or equipment can provide a complete image of what lies below. Our results should always be used in conjunction with as many methods as possible such as consulting existing plans and drawings, visual inspection of above-ground features, exploratory excavation or potholing, utilization of services such as One Call/811 drilling, cutting, or digging as far as possible from all our markings, etc. Depths are dependent on the dielectric of the materials being scanned so depth accuracy can vary throughout a site. At this site, the maximum GPR depth was approximately 3'-4' in most areas. Relevant scan examples were saved and will be provided in this report.

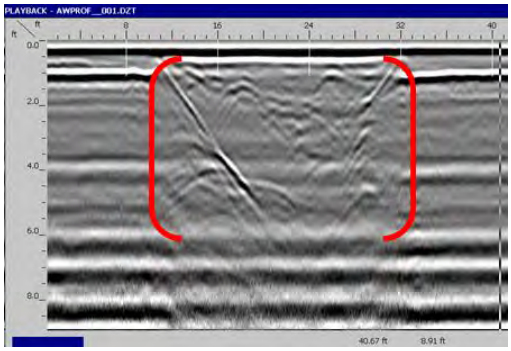
FINDINGS

The subsurface conditions at the time of the scanning allowed for maximum GPR depth penetration of 3'-4' in most areas. based on the accessible areas scanned and the maximum GPR depth of 3'-4', the equipment and methods used does not show significant signs of excavation. However, based on historical maps and site clues the former oil well is believed to be observed. A sink whole was observed onsite in the area the former oil rig was observed in historical maps. The site appeared to have major construction/ excavation. The possible former well location is highlighted with pink on the map on page four of this report and was marked in the field with a pink circle.

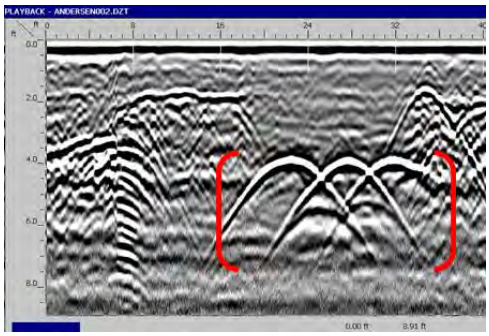
Please keep in mind that any maps or drawings provided by GPRS are not survey-grade and are to be used for reference only. The following pages will provide further explanation of the findings.



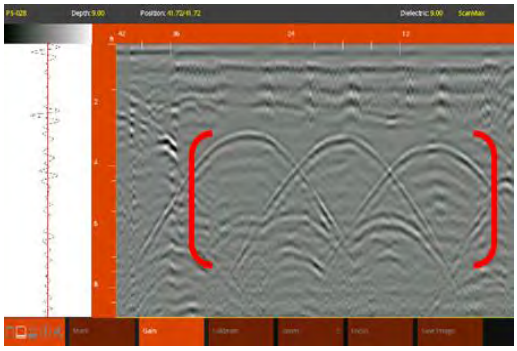
Beverly Dr & Honolulu Terrace, Whittier CA 90601	**Terms and Conditions** GPRS does not provide land survey or civil engineering data collection or documentation. This is provided as a reference map of the field markings and is not survey-grade.	**SITE MAP**	Beverly Dr & Honolulu Terrace, Whittier CA 90601	Prepared by: GPRS



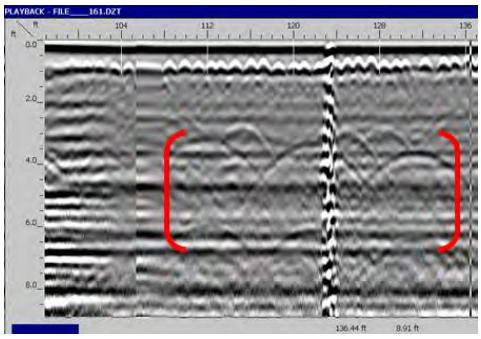
Sample GPR data screenshot showing a possible former tank pit or excavation. The change in the data from the excavation is apparent but GPR cannot determine whether this is due to a tank removal or whether tanks may still exist beyond the maximum depth penetration.



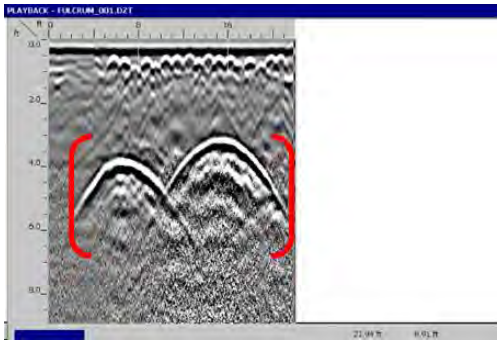
Sample GPR data screenshot showing three reactions from probable USTs. The diameters cannot be determined from these hyperbolas, but they can be seen to be larger than a reaction from a typical utility.



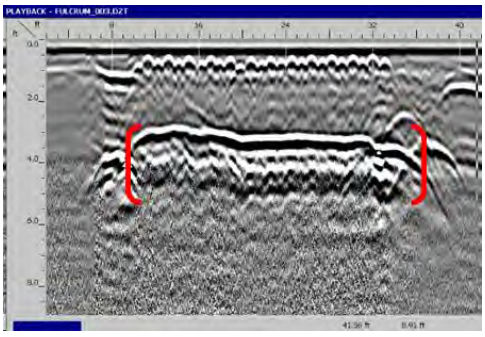
Sample GPR data screenshot showing three reactions from known USTs at an active fueling station. The concrete above the USTs is reinforced with wire mesh.



Sample GPR data screenshot showing three reactions from known USTs at an active fueling station. These USTs are non-metallic and therefore have a weaker reflection that is more difficult and sometimes impossible to identify in the GPR data.



Sample GPR data screenshot showing two potential USTs. These reactions are larger than a typical utility, but large utilities can look identical to a UST.

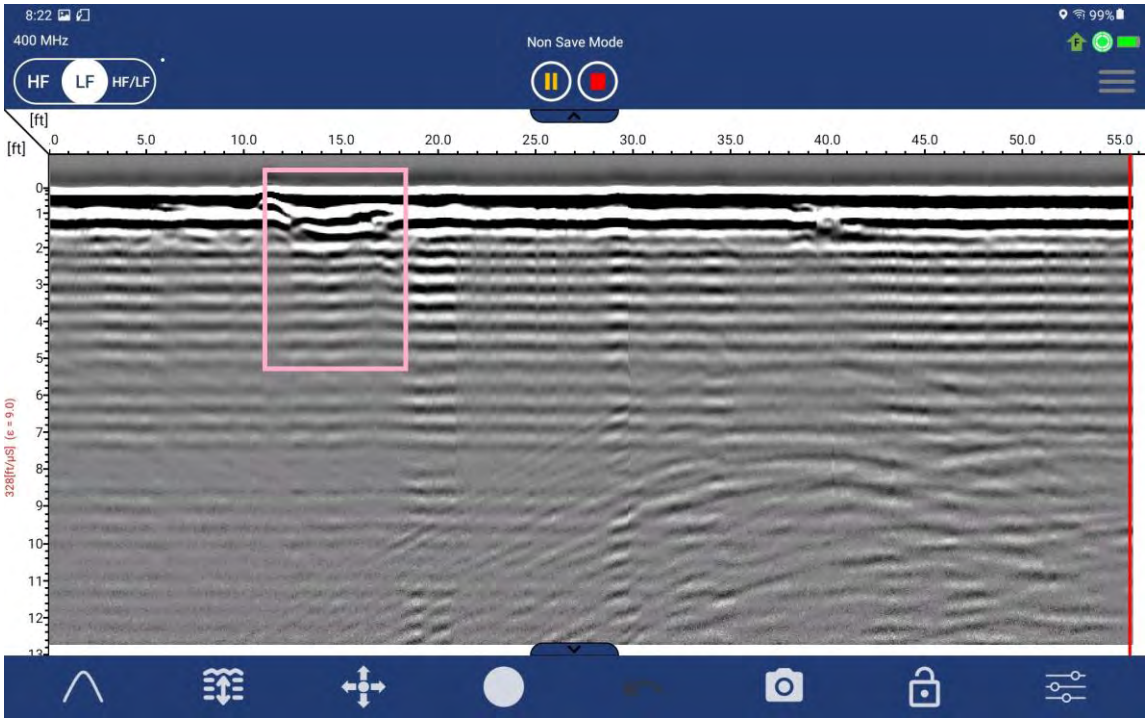


Sample GPR data screenshot showing a scan collected parallel along the top one of the suspected USTs shown in the data to the left. A parallel scan is used to determine a clear beginning and end to the reaction to the reaction which is an indicator of a UST and to determine an approximate length.

Sample Data Screenshots. **(Not found at this project)**	Location: **previously collected from various sites**	GPRS

Historical map of the site with the overlay from the findings of the existing site. It appears the former oil well is in the area the sink whole was observed. Example GPR data screen shots collected from the site. The depth scale is on the left and the distance of the scan is across the top, forming a cross section view of the subsurface. Within the maximum depth range of 2'-3', the GPR data collected does shows the reaction when directly over the sink whole observed at the site. Based on historical maps and site observations the former oil well location is believed to be highlighted in pink.





Example GPR Data & Site Photos	Site Address: Beverly Dr & Honolulu Terrace, Whittier CA 90601	GPRS

Site photos of the scanned area and the proposed soil boring locations (boring marked in white paint. The suspected former oil well location marked with pink paint.











Site photos	Site Address: Beverly Dr & Honolulu Terrace, Whittier CA 90601	GPRS

CLOSING

GPRS, Inc. has been in business since 2001, specializing in underground storage tank location, concrete scanning, utility locating, and shallow void detection for projects throughout the United States. I encourage you to visit our website (www.gprsinc.com) and contact any of the numerous references listed.

In conclusion, based on site observations, historical maps and the GPR data collected onsite the suspected former oil well location is believed to have been observed. Due to the lack of a hyperbolic curve which is typically associated with an obstruction the well is believed to have been removed. Majority of the site appears to have been excavated and backfilled. A sink whole was observed in the suspected area of the former oil well location.

GPRS appreciates the opportunity to offer our services, and we look forward to continuing to work with you on future projects. Please feel free to contact us for additional information or with any questions you may have regarding this report.

Signed,



Ivan Merrill
Senior Project Manager | Southern California

Direct: 562.665.7267

ivan.merrill@gprsinc.com

www.gprsinc.com

APPENDIX C: LABORATORY ANALYTICAL REPORTS

PARTNER

JONES ENVIRONMENTAL, INC.
714-449-9937
562-646-1611
11007 FOREST PLACE
SANTA FE SPRINGS, CA 90670
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JONES ENVIRONMENTAL
LABORATORY RESULTS

Client:	Partner Engineering and Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd, Suite 200 Torrance, CA	**Jones Ref. No.:** **Client Ref. No.:**	ST-19197 22-356922.1
Attn:	J. Mangine		
		Date Received:	2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21-22/2022
Project Address:	APN 8126-033-025 Whittier, CA 90603	**Physical State:**	Soil

ANALYSES REQUESTED

Soil:

1. EPA 8015M – Extended Range Hydrocarbons
2. EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics
3. EPA 6010B by 3050B and EPA 7471A – CAM 17 Metals

Approval: Juan Camacho

Juan Camacho, M.S.
Stationary Lab Technical Manager

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LABORATORY RESULTS

Client:	Partner Engineering and Science, Inc.	**Report date:**	2/25/2022
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		Date Received:	2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21-22/2022
Project Address:	APN 8126-033-025 Whittier, CA 90603	**Physical State:**	Soil

EPA 8015M - Extended Range Hydrocarbons

Sample ID:	**B1-5**	**B2-10**	**B3-5**	**B4-5**	**B5-15**		
Jones ID:	**ST-19197-02**	**ST-19197-07**	**ST-19197-10**	**ST-19197-16**	**ST-19197-20**	**Reporting Limit**	**Units**
Carbon Chain Range							
C10 - C11	ND	ND	ND	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	ND	ND	ND	1.0	mg/kg
C14 - C15	**10.3**	ND	ND	ND	ND	1.0	mg/kg
C16 - C17	**15.0**	ND	ND	ND	ND	1.0	mg/kg
C18 - C19	**22.8**	ND	ND	ND	ND	1.0	mg/kg
C20 - C23	**86.0**	ND	ND	ND	ND	1.0	mg/kg
C24 - C27	**171**	ND	ND	ND	ND	1.0	mg/kg
C28 - C31	**325**	ND	ND	ND	ND	1.0	mg/kg
C32 - C35	**364**	ND	ND	ND	ND	1.0	mg/kg
C36 - C39	**423**	ND	ND	ND	ND	1.0	mg/kg
C40 - C43	**406**	ND	ND	ND	ND	1.0	mg/kg
C13 - C22	**109**	ND	ND	ND	ND	10.0	mg/kg
C23 - C40	**1430**	ND	ND	ND	ND	10.0	mg/kg
Dilution Factor	1	1	1	1	1		
Surrogate Recovery:						**QC Limits**	
Hexacosane	118%	85%	70%	67%	77%	30 - 120	
Batch:	FID8_022122_01	FID8_022122_01	FID8_022122_01	FID8_022122_01	FID8_022222_01		

ND = Value less than reporting limit

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LABORATORY RESULTS

Client:	Partner Engineering and Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd, Suite 200 Torrance, CA	**Jones Ref. No.:** **Client Ref. No.:**	ST-19197 22-356922.1
Attn:	J. Mangine		
		Date Received:	2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21-22/2022
Project Address:	APN 8126-033-025 Whittier, CA 90603	**Physical State:**	Soil

EPA 8015M - Extended Range Hydrocarbons

Sample ID:	**B6-10**		
Jones ID:	**ST-19197-23**	**Reporting Limit**	**Units**
Carbon Chain Range			
C10 - C11	ND	1.0	mg/kg
C12 - C13	ND	1.0	mg/kg
C14 - C15	ND	1.0	mg/kg
C16 - C17	ND	1.0	mg/kg
C18 - C19	ND	1.0	mg/kg
C20 - C23	ND	1.0	mg/kg
C24 - C27	ND	1.0	mg/kg
C28 - C31	ND	1.0	mg/kg
C32 - C35	ND	1.0	mg/kg
C36 - C39	ND	1.0	mg/kg
C40 - C43	ND	1.0	mg/kg
C13 - C22	ND	10.0	mg/kg
C23 - C40	ND	10.0	mg/kg
Dilution Factor	1		
Surrogate Recovery:		**QC Limits**	
Hexacosane	56%	30 - 120	
Batch:	FID8_ 022122_01		

ND = Value less than reporting limit

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Partner Engineering and Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd, Suite 200 Torrance, CA	**Jones Ref. No.:** **Client Ref. No.:**	ST-19197 22-356922.1
Attn:	J. Mangine		
		Date Received:	2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21-22/2022
Project Address:	APN 8126-033-025 Whittier, CA 90603	**Physical State:**	Soil

EPA 8015M - Extended Range Hydrocarbons

Sample ID:	**METHOD BLANK #1**	**METHOD BLANK #2**		
Jones ID:	**MB1-022122FID8**	**MB1-022222FID8**	**Reporting Limit**	**Units**
Carbon Chain Range				
C10 - C11	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	1.0	mg/kg
C24 - C27	ND	ND	1.0	mg/kg
C28 - C31	ND	ND	1.0	mg/kg
C32 - C35	ND	ND	1.0	mg/kg
C36 - C39	ND	ND	1.0	mg/kg
C40 - C43	ND	ND	1.0	mg/kg
C13 - C22	ND	ND	10.0	mg/kg
C23 - C40	ND	ND	10.0	mg/kg
Dilution Factor	1	1		
Surrogate Recovery:			**QC Limits**	
Hexacosane	118%	113%	30 - 120	
Batch:	FID8_022122_01	FID8_022222_01		

ND = Value less than reporting limit

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Partner Engineering and Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd, Suite 200 Torrance, CA	**Jones Ref. No.:** **Client Ref. No.:**	ST-19197 22-356922.1
Attn:	J. Mangine		
		Date Received:	2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21-22/2022
Project Address:	APN 8126-033-025 Whittier, CA 90603	**Physical State:**	Soil

BATCH: **FID8_ 022122_01** **Prepared:** 2/21/2022 **Analyzed:** 2/21/2022

EPA 8015M - Extended Range Hydrocarbons

	Result	Spike Level	% Recovery	% RPD	% Recovery Limits	Units
LCS:	LCS1-022122FID8	**SAMPLE SPIKED:**	CLEAN SOIL			
Analyte:						
Diesel (C10 - C28)	**506**	500	101%		60 - 140	mg/kg
Surrogate Recovery:						
Hexacosane			118%		30 - 120	
LCSD:	LCSD1-022122FID8	**SAMPLE SPIKED:**	CLEAN SOIL			
Analyte:						
Diesel (C10 - C28)	**514**	500	103%	1.6%	60 - 140	mg/kg
Surrogate Recoveries:						
Hexacosane			118%		30 - 120	
CCV:	CCV1-022122FID8					
Analyte:						
Diesel (C10 - C28)	**1200**	1000	120%		80 - 120	mg/kg

LCS = Laboratory Control Sample
LCSD= Laboratory Control Sample Duplicate
CCV = Continuing Calibration Verification
RPD = Relative Percent Difference

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Partner Engineering and Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd, Suite 200	**Jones Ref. No.:**	ST-19197
	Torrance, CA	**Client Ref. No.:**	22-356922.1
Attn:	J. Mangine		
		Date Received:	2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21-22/2022
Project Address:	APN 8126-033-025	**Physical State:**	Soil
	Whittier, CA 90603		

BATCH: **FID8_ 022222_01** **Prepared:** 2/22/2022 **Analyzed:** 2/22/2022

EPA 8015M - Extended Range Hydrocarbons

	Result	Spike Level	% Recovery	% RPD	% Recovery Limits	Units
LCS:	LCS1-022222FID8	**SAMPLE SPIKED:**	CLEAN SOIL			
Analyte:						
Diesel (C10 - C28)	**580**	500	116%		60 - 140	mg/kg
Surrogate Recovery:						
Hexacosane			116%		30 - 120	
LCSD:	LCSD1-022222FID8	**SAMPLE SPIKED:**	CLEAN SOIL			
Analyte:						
Diesel (C10 - C28)	**549**	500	110%	5.5%	60 - 140	mg/kg
Surrogate Recoveries:						
Hexacosane			119%		30 - 120	
CCV:	CCV1-022222FID8					
Analyte:						
Diesel (C10 - C28)	**1180**	1000	118%		80 - 120	mg/kg

LCS = Laboratory Control Sample
LCSD= Laboratory Control Sample Duplicate
CCV = Continuing Calibration Verification
RPD = Relative Percent Difference

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Partner Engineering & Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd, Suite 200 Torrance, CA	**Jones Ref. No.:** **Client Ref. No.:**	ST-19197 22-356922.1
Attn:	J. Mangine		
		Date Received:	2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21/2022
Project Address:	APN 8126-033-025 Whittier, CA 90603	**Physical State:**	Soil

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**B1-5**	**B2-10**	**B3-5**	**B4-15**	**B5-15**		
Jones ID:	**ST-19197-02**	**ST-19197-07**	**ST-19197-10**	**ST-19197-16**	**ST-19197-20**	**Reporting Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromodichloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
Bromoform	ND	ND	ND	ND	ND	1.0	µg/kg
n-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
sec-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
tert-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Carbon tetrachloride	ND	ND	ND	ND	ND	1.0	µg/kg
Chlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Chloroform	ND	ND	ND	ND	ND	1.0	µg/kg
2-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromochloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromomethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
2,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**B1-5**	**B2-10**	**B3-5**	**B4-15**	**B5-15**		
Jones ID:	**ST-19197-02**	**ST-19197-07**	**ST-19197-10**	**ST-19197-16**	**ST-19197-20**	**Reporting Limit**	**Units**
Analytes:							
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
Ethylbenzene	ND	**4.3**	ND	ND	ND	1.0	µg/kg
Freon 11	ND	ND	ND	ND	ND	5.0	µg/kg
Freon 12	ND	ND	ND	ND	ND	5.0	µg/kg
Freon 113	ND	ND	ND	ND	ND	5.0	µg/kg
Hexachlorobutadiene	ND	ND	ND	ND	ND	1.0	µg/kg
Isopropylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Isopropyltoluene	ND	ND	**2.3**	ND	ND	1.0	µg/kg
Methylene chloride	ND	ND	ND	ND	ND	1.0	µg/kg
Naphthalene	ND	ND	ND	ND	ND	1.0	µg/kg
n-Propylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Styrene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Tetrachloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
Toluene	ND	**1.8**	ND	ND	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Trichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Vinyl chloride	ND	ND	ND	ND	ND	1.0	µg/kg
m,p-Xylene	ND	ND	ND	ND	ND	2.0	µg/kg
o-Xylene	ND	ND	ND	ND	ND	1.0	µg/kg
Methyl-tert-butylether	ND	ND	ND	ND	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	ND	ND	ND	ND	5.0	µg/kg
Di-isopropylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-amylmethylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-Butylalcohol	ND	ND	ND	ND	ND	50.0	µg/kg
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	0.20	mg/kg
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	112%	116%	113%	114%	115%	60 - 140	
Toluene-d_8	98%	97%	95%	97%	94%	60 - 140	
4-Bromofluorobenzene	92%	92%	94%	95%	93%	60 - 140	
Batch:	VOC6-022122-01	VOC6-022122-01	VOC6-022122-01	VOC6-022122-01	VOC6-022122-01		

ND = Value less than reporting limit

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Partner Engineering & Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd, Suite 200	**Jones Ref. No.:**	ST-19197
	Torrance, CA	**Client Ref. No.:**	22-356922.1
Attn:	J. Mangine		
		Date Received:	2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21/2022
Project Address:	APN 8126-033-025	**Physical State:**	Soil
	Whittier, CA 90603		

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID: **B6-10**

Jones ID:	**ST-19197-23**	**Reporting Limit**	**Units**
Analytes:			
Benzene	ND	1.0	µg/kg
Bromobenzene	ND	1.0	µg/kg
Bromodichloromethane	ND	1.0	µg/kg
Bromoform	ND	1.0	µg/kg
n-Butylbenzene	ND	1.0	µg/kg
sec-Butylbenzene	ND	1.0	µg/kg
tert-Butylbenzene	ND	1.0	µg/kg
Carbon tetrachloride	ND	1.0	µg/kg
Chlorobenzene	ND	1.0	µg/kg
Chloroform	ND	1.0	µg/kg
2-Chlorotoluene	ND	1.0	µg/kg
4-Chlorotoluene	ND	1.0	µg/kg
Dibromochloromethane	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	1.0	µg/kg
Dibromomethane	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	1.0	µg/kg
1,1-Dichloroethane	ND	1.0	µg/kg
1,2-Dichloroethane	ND	1.0	µg/kg
1,1-Dichloroethene	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	1.0	µg/kg
1,2-Dichloropropane	ND	1.0	µg/kg
1,3-Dichloropropane	ND	1.0	µg/kg
2,2-Dichloropropane	ND	1.0	µg/kg
1,1-Dichloropropene	ND	1.0	µg/kg
cis-1,3-Dichloropropene	ND	1.0	µg/kg

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID: B6-10

Jones ID: ST-19197-23

Analytes:		Reporting Limit	Units
trans-1,3-Dichloropropene	ND	1.0	µg/kg
Ethylbenzene	ND	1.0	µg/kg
Freon 11	ND	5.0	µg/kg
Freon 12	ND	5.0	µg/kg
Freon 113	ND	5.0	µg/kg
Hexachlorobutadiene	ND	1.0	µg/kg
Isopropylbenzene	ND	1.0	µg/kg
4-Isopropyltoluene	ND	1.0	µg/kg
Methylene chloride	ND	1.0	µg/kg
Naphthalene	ND	1.0	µg/kg
n-Propylbenzene	ND	1.0	µg/kg
Styrene	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	1.0	µg/kg
Tetrachloroethene	ND	1.0	µg/kg
Toluene	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	1.0	µg/kg
Trichloroethene	ND	1.0	µg/kg
1,2,3-Trichloropropane	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	1.0	µg/kg
Vinyl chloride	ND	1.0	µg/kg
m,p-Xylene	ND	2.0	µg/kg
o-Xylene	ND	1.0	µg/kg
Methyl-tert-butylether	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	5.0	µg/kg
Di-isopropylether	ND	5.0	µg/kg
tert-amylmethylether	ND	5.0	µg/kg
tert-Butylalcohol	ND	50.0	µg/kg
Gasoline Range Organics (C4-C12)	ND	0.20	mg/kg

Dilution Factor 1

Surrogate Recoveries:		QC Limits
Dibromofluoromethane	114%	60 - 140
Toluene-d_8	95%	60 - 140
4-Bromofluorobenzene	91%	60 - 140

Batch: VOC6-022122-01

ND = Value less than reporting limit

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Partner Engineering & Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd, Suite 200 Torrance, CA	**Jones Ref. No.:** **Client Ref. No.:**	ST-19197 22-356922.1
Attn:	J. Mangine		
		Date Received:	2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21/2022
Project Address:	APN 8126-033-025 Whittier, CA 90603	**Physical State:**	Soil

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**METHOD BLANK #1**		
Jones ID:	**022122-V6MB1**	**Reporting Limit**	**Units**
Analytes:			
Benzene	ND	1.0	µg/kg
Bromobenzene	ND	1.0	µg/kg
Bromodichloromethane	ND	1.0	µg/kg
Bromoform	ND	1.0	µg/kg
n-Butylbenzene	ND	1.0	µg/kg
sec-Butylbenzene	ND	1.0	µg/kg
tert-Butylbenzene	ND	1.0	µg/kg
Carbon tetrachloride	ND	1.0	µg/kg
Chlorobenzene	ND	1.0	µg/kg
Chloroform	ND	1.0	µg/kg
2-Chlorotoluene	ND	1.0	µg/kg
4-Chlorotoluene	ND	1.0	µg/kg
Dibromochloromethane	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	1.0	µg/kg
Dibromomethane	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	1.0	µg/kg
1,1-Dichloroethane	ND	1.0	µg/kg
1,2-Dichloroethane	ND	1.0	µg/kg
1,1-Dichloroethene	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	1.0	µg/kg
1,2-Dichloropropane	ND	1.0	µg/kg
1,3-Dichloropropane	ND	1.0	µg/kg
2,2-Dichloropropane	ND	1.0	µg/kg
1,1-Dichloropropene	ND	1.0	µg/kg
cis-1,3-Dichloropropene	ND	1.0	µg/kg

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**METHOD BLANK #1**		
Jones ID:	**022122-V6MB1**	**Reporting Limit**	**Units**
Analytes:			
trans-1,3-Dichloropropene	ND	1.0	µg/kg
Ethylbenzene	ND	1.0	µg/kg
Freon 11	ND	5.0	µg/kg
Freon 12	ND	5.0	µg/kg
Freon 113	ND	5.0	µg/kg
Hexachlorobutadiene	ND	1.0	µg/kg
Isopropylbenzene	ND	1.0	µg/kg
4-Isopropyltoluene	ND	1.0	µg/kg
Methylene chloride	ND	1.0	µg/kg
Naphthalene	ND	1.0	µg/kg
n-Propylbenzene	ND	1.0	µg/kg
Styrene	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	1.0	µg/kg
Tetrachloroethene	ND	1.0	µg/kg
Toluene	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	1.0	µg/kg
Trichloroethene	ND	1.0	µg/kg
1,2,3-Trichloropropane	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	1.0	µg/kg
Vinyl chloride	ND	1.0	µg/kg
m,p-Xylene	ND	2.0	µg/kg
o-Xylene	ND	1.0	µg/kg
Methyl-tert-butylether	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	5.0	µg/kg
Di-isopropylether	ND	5.0	µg/kg
tert-amylmethylether	ND	5.0	µg/kg
tert-Butylalcohol	ND	50.0	µg/kg
Gasoline Range Organics (C4-C12)	ND	0.20	mg/kg
Dilution Factor	1		

Surrogate Recoveries:		**QC Limits**
Dibromofluoromethane	77%	60 - 140
Toluene-d_8	95%	60 - 140
4-Bromofluorobenzene	71%	60 - 140

Batch: VOC6-022122-01

ND = Value less than reporting limit

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Partner Engineering & Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd, Suite 200 Torrance, CA	**Jones Ref. No.:** **Client Ref. No.:**	ST-19197 22-356922.1
Attn:	J. Mangine	**Date Sampled:**	
		Date Received:	2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21/2022
Project Address:	APN 8126-033-025 Whittier, CA 90603	**Physical State:**	Soil

EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

GC#:	**VOC6-022122-01**					
Jones ID:	022122-V6LCS1	022122-V6LCSD1			022122-V6CCV1	
Parameter	LCS Recovery (%)	LCSD Recovery (%)	RPD	Acceptability Range (%)	CCV	Acceptability Range (%)
Vinyl chloride	102%	107%	5%	60 - 140	111%	80 - 120
1,1-Dichloroethene	118%	125%	6.0%	60 - 140	114%	80 - 120
Cis-1,2-Dichloroethene	117%	117%	0.2%	70 - 130	102%	80 - 120
1,1,1-Trichloroethane	118%	121%	2.6%	70 - 130	117%	80 - 120
Benzene	110%	108%	1.8%	70 - 130	97%	80 - 120
Trichloroethene	113%	113%	0.8%	70 - 130	100%	80 - 120
Toluene	119%	113%	5.3%	70 - 130	88%	80 - 120
Tetrachloroethene	120%	122%	1.3%	70 - 130	101%	80 - 120
Chlorobenzene	121%	114%	5.4%	70 - 130	99%	80 - 120
Ethylbenzene	109%	104%	4.7%	70 - 130	83%	80 - 120
1,2,4 Trimethylbenzene	114%	108%	5.4%	70 - 130	80%	80 - 120
Gasoline Range Organics (C4-C12)	113%	108%	4.3%	70 - 130		
Surrogate Recovery:						
Dibromofluoromethane	102%	106%		60 - 140	120%	80 - 120
Toluene-d_8	101%	96%		60 - 140	96%	80 - 120
4-Bromofluorobenzene	99%	101%		60 - 140	95%	80 - 120

LCS = Laboratory Control Sample
LCSD = Laboratory Control Sample Duplicate
CCV = Continuing Calibration Verification
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 20%

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JONES ENVIRONMENTAL
LABORATORY RESULTS

Client:	Partner Engineering & Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd., Suite 200 Torrance, CA	**Jones Ref. No.:** **Client Ref. No.:**	ST-19197 22-356922.1
Attn:	J. Mangine	**Date Sampled:**	
		Date Received:	2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21&25/2022
Project Address:	APN 8126-033-025 Whittier, CA 90603	**Physical State:**	Soil

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Sample ID:	**B1-5**	**B2-10**	**B3-5**	**B4-15**	**B5-15**		
Jones ID:	**ST-19197-02**	**ST-19197-07**	**ST-19197-10**	**ST-19197-16**	**ST-19197-20**	**Reporting Limit**	**Units**
Analytes:							
Silver, Ag	ND	ND	ND	ND	**1.2**	0.5	mg/kg
Arsenic, As	ND	**7.6**	ND	ND	ND	5.0	mg/kg
Barium, Ba	**107**	**1870***	**255**	**198**	**157**	0.5	mg/kg
Beryllium, Be	ND	ND	ND	ND	ND	0.5	mg/kg
Cadmium, Cd	**1.8**	**2.3**	**2.3**	**2.7**	**8.9**	0.5	mg/kg
Cobalt, Co	**8.0**	**9.4**	**7.3**	**8.4**	**4.4**	0.5	mg/kg
Chromium, Cr	**44.2**	**25.4**	**22.8**	**29.8**	**15.6**	0.5	mg/kg
Copper, Cu	**20.2**	**30.8**	**24.2**	**24.7**	**15.2**	0.5	mg/kg
Molybdenum, Mo	**2.3**	**12.4**	**1.7**	**3.6**	**2.9**	0.5	mg/kg
Nickel, Ni	**29.1**	**35.0**	**18.9**	**36.6**	**38.8**	0.5	mg/kg
Lead, Pb	**14.8**	**5.3**	**4.6**	**3.9**	ND	0.5	mg/kg
Antimony, Sb	ND	ND	ND	ND	ND	5.0	mg/kg
Selenium, Se	ND	ND	ND	ND	ND	5.0	mg/kg
Thallium, Tl	ND	ND	ND	ND	ND	5.0	mg/kg
Vanadium, V	**35.7**	**75.0**	**46.7**	**66.4**	**49.3**	0.5	mg/kg
Zinc, Zn	**68.0**	**71.2**	**53.7**	**62.8**	**36.9**	0.5	mg/kg
Dilution Factor	1	1/10*	1	1	1		
Batch:	I22022401	I22022401	I22022401	I22022401	I22022401		

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

Sample ID:	**B1-5**	**B2-10**	**B3-5**	**B4-15**	**B5-15**		
Jones ID:	**ST-19197-02**	**ST-19197-07**	**ST-19197-10**	**ST-19197-16**	**ST-19197-20**	**Reporting Limit**	**Units**
Mercury, Hg	**0.055**	**0.037**	**0.071**	**0.068**	**0.050**	0.020	mg/kg
Dilution Factor	1	1	1	1	1		
Batch:	H22022101	H22022101	H22022101	H22022101	H22022101		

ND = Value less than reporting limit

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JONES ENVIRONMENTAL
LABORATORY RESULTS

Client:	Partner Engineering & Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd., Suite 200 Torrance, CA	**Jones Ref. No.:** **Client Ref. No.:**	ST-19197 22-356922.1
Attn:	J. Mangine	**Date Sampled:**	
		Date Received:	2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21&25/2022
Project Address:	APN 8126-033-025 Whittier, CA 90603	**Physical State:**	Soil

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Sample ID:	**B6-10**		
Jones ID:	**ST-19197-23**	**Reporting Limit**	**Units**
Analytes:			
Silver, Ag	ND	0.5	mg/kg
Arsenic, As	ND	5.0	mg/kg
Barium, Ba	**140**	0.5	mg/kg
Beryllium, Be	ND	0.5	mg/kg
Cadmium, Cd	**1.8**	0.5	mg/kg
Cobalt, Co	**7.7**	0.5	mg/kg
Chromium, Cr	**13.6**	0.5	mg/kg
Copper, Cu	**16.5**	0.5	mg/kg
Molybdenum, Mo	**0.9**	0.5	mg/kg
Nickel, Ni	**13.4**	0.5	mg/kg
Lead, Pb	**10.1**	0.5	mg/kg
Antimony, Sb	ND	5.0	mg/kg
Selenium, Se	ND	5.0	mg/kg
Thallium, Tl	ND	5.0	mg/kg
Vanadium, V	**29.6**	0.5	mg/kg
Zinc, Zn	**45.9**	0.5	mg/kg
Dilution Factor	1		
Batch:	I22022401		

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

Sample ID:	**B6-10**		
Jones ID:	**ST-19197-23**	**Reporting Limit**	**Units**
Mercury, Hg	**0.038**	0.020	mg/kg
Dilution Factor	1		
Batch:	H22022101		

ND = Value less than reporting limit

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Partner Engineering & Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd., Suite 200 Torrance, CA	**Jones Ref. No.:** **Client Ref. No.:**	ST-19197 22-356922.1
Attn:	J. Mangine	**Date Sampled:**	
		Date Received:	2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21&25/2022
Project Address:	APN 8126-033-025 Whittier, CA 90603	**Physical State:**	Soil

BATCH: **I22022401** **Prepared:** 2/21/2022 **Analyzed:** 2/25/2022

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Spike Level	% REC	% REC Limits	% RPD	Reporting Limit	Units
METHOD BLANK:	**I220224-MB1**						
Silver, Ag	ND					0.5	mg/kg
Arsenic, As	ND					5.0	mg/kg
Barium, Ba	ND					0.5	mg/kg
Beryllium, Be	ND					0.5	mg/kg
Cadmium, Cd	ND					0.5	mg/kg
Cobalt, Co	ND					0.5	mg/kg
Chromium, Cr	ND					0.5	mg/kg
Copper, Cu	ND					0.5	mg/kg
Molybdenum, Mo	ND					0.5	mg/kg
Nickel, Ni	ND					0.5	mg/kg
Lead, Pb	ND					0.5	mg/kg
Antimony, Sb	ND					5.0	mg/kg
Selenium, Se	ND					5.0	mg/kg
Thallium, Tl	ND					5.0	mg/kg
Vanadium, V	ND					0.5	mg/kg
Zinc, Zn	ND					0.5	mg/kg

ND= Not Detected

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Partner Engineering & Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd., Suite 200 Torrance, CA	**Jones Ref. No.:** **Client Ref. No.:**	ST-19197 22-356922.1
Attn:	J. Mangine	**Date Sampled:**	
		Date Received:	2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21&25/2022
Project Address:	APN 8126-033-025 Whittier, CA 90603	**Physical State:**	Soil

BATCH: **I22022401** **Prepared:** 2/21/2022 **Analyzed:** 2/25/2022

EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES

Analytes:	Result	Spike Level	% REC	% RPD	% REC Limits	Units
LCS:	**I220224-LCS1**					
Barium, Ba	**232**	200	116%		80 - 120	mg/kg
Cobalt, Co	**56.8**	50.0	114%		80 - 120	mg/kg
Lead, Pb	**58.4**	50.0	117%		80 - 120	mg/kg
Selenium, Se	**206**	200	103%		80 - 120	mg/kg
Zinc, Zn	**53.1**	50.0	106%		80 - 120	mg/kg
LCSD:	**I220224-LCSD1**					
Barium, Ba	**222**	200	111%	4.4%	80 - 120	mg/kg
Cobalt, Co	**54.3**	50.0	109%	4.5%	80 - 120	mg/kg
Lead, Pb	**55.5**	50.0	111%	5.1%	80 - 120	mg/kg
Selenium, Se	**195**	200	98%	5.5%	80 - 120	mg/kg
Zinc, Zn	**50.8**	50.0	102%	4.4%	80 - 120	mg/kg
CCV:	**I220224-CCV**					
Barium, Ba	**1.03**	1.00	103%		90-110	mg/L
Cobalt, Co	**1.04**	1.00	104%		90-110	mg/L
Lead, Pb	**1.02**	1.00	102%		90-110	mg/L
Selenium, Se	**1.01**	1.00	101%		90-110	mg/L
Zinc, Zn	**1.02**	1.00	102%		90-110	mg/L

CCV = Continuing Calibration Verification
LCS = Laboratory Control Sample
LCSD= Laboratory Control Sample Duplicate

ND= Not Detected
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Partner Engineering & Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd., Suite 200 Torrance, CA	**Jones Ref. No.:** **Client Ref. No.:**	ST-19197 22-356922.1
Attn:	J. Mangine	**Date Sampled:**	
		Date Received:	2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21&25/2022
Project Address:	APN 8126-033-025 Whittier, CA 90603	**Physical State:**	Soil

BATCH: **H22022101** **Prepared:** 2/21/2022 **Analyzed:** 2/21/2022

EPA 7471A - Mercury by Cold Vapor Atomic Absorption

Analytes:	Result	Spike Level	% REC	% RPD	% REC Limits	Reporting Limit	Units
METHOD BLANK:	**H220221-MB1**						
Mercury, Hg	ND					0.020	mg/kg
LCS:	**H220221-LCS1**						
Mercury, Hg	**1.11**	1.00	111%		80 - 120		mg/kg
LCSD:	**H220221-LCSD1**						
Mercury, Hg	**1.14**	1.00	114%	**2.7%**	80 - 120		mg/kg
CCV:	**H220221-CCV1**						
Mercury, Hg	**5.39**	5.00	108%		90-110		µg/L

ND= Not Detected
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

LCS = Laboratory Control Sample
LCSD= Laboratory Control Sample Duplicate
CCV = Continuing Calibration Verification
RPD = Relative Percent Difference

Chain-of-Custody Record

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Turn Around Requested:
- ☐ Immediate Attention - 200%
- ☐ Rush 24 Hours - 100%
- ☐ Rush 48 Hours - 50%
- ☐ Rush 72 Hours - 25%
- ☐ Rush 96 Hours - 10%
- ☑ Normal - No Surcharge

LAB USE ONLY
Jones Project # ST-19197
Page 1 of 4

Client	P.E.S.
Project Name	Whittier
Project Address	APN ~~8126~~ 8126-033-025
	Whittier, CA 90603
Email	jmangine@parthergsi.com
Phone	(831) 359-5041
Report To	S. Mangine
Sampler	H. Gutierrez
Date	2/18/22
Client Project #	22-756922.1

Sample Container / Preservative Abbreviations

AS - Acetate Sleeve
SS - Stainless Steel Sleeve
BS - Brass Sleeve
G - Glass
AB - Amber Bottle
P - Plastic
SOBI - Sodium Bisulfate
MeOH - Methanol
HCl - Hydrochloric Acid
HNO3 - Nitric Acid
O - Other (See Notes)

Report Options
EDD ____
EDF* - 10% Surcharge ____
*Global ID ____

Sample ID	Sample Collection Date	Sample Collection Time	Laboratory Sample ID	Preservative	Sample Container	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Free Product (FP)	Analysis Requested: TPH-cc 8015/8260	VOCs 8260	CAM17 Metals 6010/7471	Number of Containers	Notes & Special Instructions
B1-2		9:48	ST-19197-01		SLEEVE & 3 VOAs	S					
B1-5		10:03	ST-19197-02				X	X	X		
B1-10		10:10	ST-19197-03								
B1-15		10:19	ST-19197-04								
B2-2		10:31	ST-19197-05								
B2-5		10:37	ST-19197-06								
B2-10		10:43	ST-19197-07				X	X	X		
B2-15		10:57	ST-19197-08								
B3-2		11:16	ST-19197-09								
B3-5		11:22	ST-19197-10				X	X	X		

Relinquished By (Signature)	Printed Name: Hermon Gutierrez	Received By (Signature)	Printed Name
Company: P.E.S.	Date: 2/18/22 Time: 1631	Company	Date Time
Relinquished By (Signature)	Printed Name	Received By Laboratory (Signature)	Printed Name: Jose Camacho
Company	Date: Time	Company: Jones Env.	Date: 2-8-22 Time: 1631

Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

Chain-of-Custody Record

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Turn Around Requested:
- ☐ Immediate Attention - 200%
- ☐ Rush 24 Hours - 100%
- ☐ Rush 48 Hours - 50%
- ☐ Rush 72 Hours - 25%
- ☐ Rush 96 Hours - 10%
- ☒ Normal - No Surcharge

LAB USE ONLY
Jones Project # ST-19197
Page 2 of 4

Client	P.E.S.
Project Name	Whittier
Project Address	See page 1
Email	
Phone	
Report To	Sampler
Date	2/18/22
Client Project #	22-356922.1

Sample Container / Preservative Abbreviations
AS - Acetate Sleeve
SS - Stainless Steel Sleeve
BS - Brass Sleeve
G - Glass
AB - Amber Bottle
P - Plastic
SOBI - Sodium Bisulfate
MeOH - Methanol
HCl - Hydrochloric Acid
HNO3 - Nitric Acid
O - Other (See Notes)

Report Options
EDD ____
EDF* + 10% Surcharge ____
*Global ID ____

Sample ID	Sample Collection Date	Sample Collection Time	Laboratory Sample ID	Preservative	Sample Container	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Free Product (FP)	Analysis Requested: TPH-cc 8015/8260	VOCs 8260	CAM17 Metals 6010/7471	Number of Containers	Notes & Special Instructions
B3-10	2/18/22	11:31	ST-19197-11		SLEEVE & 3 VOAs	S					
B3-15		11:45	ST-19197-12								
B4-2		12:27	ST-19197-13								
B4-5		12:33	ST-19197-14								
B4-10		12:40	ST-19197-15								
B4-15		12:50	ST-19197-16				X	X	X		
B5-2		13:17	ST-19197-17								
B5-5		13:25	ST-19197-18								
B5-10		13:29	ST-19197-19								
B5-15		13:39	ST-19197-20				X	X	X		

Relinquished By (Signature)	Printed Name: Hernan Gutierrez	Received By (Signature)	Printed Name
Company: P.E.S.	Date: 2/18/22 Time	Company	Date Time
Relinquished By (Signature)	Printed Name	Received By Laboratory (Signature)	Printed Name: Juan Camacho
Company	Date: Time	Company: Jones Env.	Date: 2-18-22 Time: 1631

Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

Chain-of-Custody Record

JONES ENVIRONMENTAL, INC.
11007 Forest Pl.
Santa Fe Springs, CA 90670
(714) 449-9937
reports@jonesenv.com
www.jonesenv.com

Turn Around Requested:
- ☐ Immediate Attention - 200%
- ☐ Rush 24 Hours - 100%
- ☐ Rush 48 Hours - 50%
- ☐ Rush 72 Hours - 25%
- ☐ Rush 96 Hours - 10%
- ☒ Normal - No Surcharge

LAB USE ONLY
Jones Project # ST-19197
Page 3 of 4

Client	P.E.S
Project Name	Whittier
Project Address	See page 1
Email	
Phone	
Report To	Sampler
Date	2/18/22
Client Project #	22-3569221

Sample Container / Preservative Abbreviations

AS - Acetate Sleeve
SS - Stainless Steel Sleeve
BS - Brass Sleeve
G - Glass
AB - Amber Bottle
P - Plastic
SOBI - Sodium Bisulfate
MeOH - Methanol
HCl - Hydrochloric Acid
HNO3 - Nitric Acid
O - Other (See Notes)

Report Options
EDD ____
EDF* - 10% Surcharge ____
*Global ID ____

Sample ID	Sample Collection Date	Sample Collection Time	Laboratory Sample ID	Preservative	Sample Container	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Free Product (FP)	Analysis Requested: TPH-cc 8015/8260	VOCs 8260	CAM17 Metals 6010/7471	Number of Containers	Notes & Special Instructions
B6-2		13:58	ST-19197-21		SLEEVE & SVOAs	S					
B6-5		14:07	ST-19197-22								
B6-10		14:13	ST-19197-23				X	X	X		
B6-15		14:22	ST-19197-24								

Relinquished By (Signature)	Printed Name: Hernan Gallegos	Received By (Signature)	Printed Name
Company: P.E.S.	Date: 2/19/22 Time	Company	Date Time
Relinquished By (Signature)	Printed Name	Received By Laboratory (Signature): Juan Camacho	Printed Name: Juan Camacho
Company	Date: Time	Company: Jonesenv	Date: 2-18-22 Time: 1631

Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

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Air Chain-of-Custody Record

Lab Use Only
Jones Project # ST-19197
Page 4 of 4

Client: P.E.S.
Client Address: Whittier
Project Name: See Page 1
Project Address:
Report To:
Email/Phone: Sampler:

Date: 2/18/22
Client Project # 22-356922.1

Purge Rate: _____ cc/min
Shut In Test: Y / N

Turn Around Requested
- ☐ Immediate Attention - 200%
- ☐ Rush 24 Hours - 100%
- ☐ Rush 48 Hours - 50%
- ☐ Rush 72 Hours - 25%
- ☐ Rush 96 Hours - 10%
- ☒ Normal - No Surcharge

Tracer
- ☒ n-pentane
- ☒ n-hexane
- ☒ n-heptane
- ☐ Helium
- ☐ 1,1-DFA
- ☐ _____

Report Options
EDD ____
EDF* - 10% Surcharge____
*Global ID _____

Gasoline Range Organics
☐ Yes ☐ No

Summa Cannister Size
☐ 1L ☐ 6L

Units Requested
☐ ug/m3 ☐ ug/L ☐ ppmV

Analysis Requested

Sample ID	Date Collected	Purge Number	Purge Volume	Laboratory Sample ID	Canister ID	Cannister Start Pressure	Cannister End Pressure	Flow Rate (cc/min)	Sampling Start Time	Sampling End Time	H.C.'s TO-15 VOCs	8260B VOCs	Magnehelic Reading (in/H_2O)	Number of Containers
B1-SG	2/18/22			ST-19197-25		-31	-1		13:31	13:41	X	X		
B2-SG				ST-19197-26		-31	-2		13:45	13:49	X	X		
B3-SG				ST-19197-27		-31	-10		14:00	14:15	X	X		
B4-SG				ST-19197-28		-31	-5		14:43	14:50	X	X		
B5-SG				ST-19197-29		-31	-5		16:35	16:45	X	X		
B6-SG				ST-19197-30		-31	-5		16:40	16:49	X	X		

Relinquished By (Signature): Date: 2/18/22
Company: PES Time: 1631
Relinquished By (Signature): Date:
Company: Time:

Recieved By (Signature): Date:
Company: Time:
Recieved By Laboratory (Signature): Date: 2-18-22
Company: Jones Env. Time: 1631

The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specificied above under the Terms and Conditions set forth

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SAMPLE RECEIPT FORM

Jones ID: JT-19197

CLIENT: Partner
DATE/TIME (LAB RECEIVED): 2-18-22 1631
PROJECT: 22-356922-1
RECEIVED BY:
Delivered by: ☒ Client ☐ Jones Courier ☐ UPS / FedEx / USPS ☐ Other

TEMPERATURE: Thermometer ID: T-1 (Corrected Temp.) Calibration Due: 08/03/2022

Temperature Cooler #1 15.5 °C ± the CF(-0.1°C) 15.0 °C Blank (Sample)

Temperature Cooler #2 _____ °C ± the CF (0.5°C) _____ °C Blank Sample

Temperature Criteria: 0 ≤ 6°C (NO frozen containers) Criteria Met? ☐ Yes ☒ No

If criteria is not met:

Sample Received on ice? ☒ Yes ☐ No*

Sample received Chilled on same day of sampling? ☒ Yes ☐ No*

Checked By: JC

SAMPLE CONDITION:	YES	NO*	N/A
Chain of Custody (COC) received filled out completely	☒	☐*	☐
Total number of containers received match COC	☒	☐*	☐
Sample container label(s) consistent with COC	☒	☐*	☐
Sample container(s) intact and in good condition	☒	☐*	☐
Proper containers and sufficient volume for analyses requested on COC	☒	☐*	☐
Proper preservative indicated on COC/container for analyses requested	☐	☐*	☒
Volatile analysis container(s) free of headspace (EPA 8260 water)	☐	☐*	☒
Custody Seals Intact on Cooler/Sample	☐	☐*	☒

CONTAINER TYPE:

Solid:
- 5035 Kits: 24
- Glass Jar: _____
- Sleeve: 24
- Other: _____

Aqueous:
- Amber Bottle: _____
- VOAs: _____
- Poly Bottle: _____
- 5030 Kits: _____
- Other: _____

Air / Soil Gas:
- Tedlar Bag: _____
  - 6 hr
  - 72 hr
  - 5 Say
- Summa:
  - (1L) 6 (6L) _____

MILEAGE:

Round Trip Mileage: _____ Travel Time: _____ On Site Time: _____

**Complete Non-Conformance if checked*

Checked by: JC

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Partner Engineering & Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd., Suite 200 Torrance, CA	**Jones Ref. No.:** **Client Ref. No.:**	ST-19197 22-356922.1
Attn:	J. Mangine	**Date Sampled:** **Date Received:**	2/18/2022 2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21/2022
Project Address:	APN 8126-033-025 Whittier, CA 90603	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

ANALYSES REQUESTED

1. EPA 8260B – Volatile Organics by GC/MS + Oxygenates

Approval: Juan Camacho

Juan Camacho, M.S.
Stationary Lab Technical Manager

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Partner Engineering & Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd., Suite 200 Torrance, CA	**Jones Ref. No.:** **Client Ref. No.:**	ST-19197 22-356922.1
Attn:	J. Mangine	**Date Sampled:** **Date Received:**	2/18/2022 2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21/2022
Project Address:	APN 8126-033-025 Whittier, CA 90603	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

Sample ID:	**B1-SG**	**B2-SG**	**B3-SG**	**B4-SG**	**B5-SG**		
Jones ID:	**ST-19197-01**	**ST-19197-02**	**ST-19197-03**	**ST-19197-04**	**ST-19197-05**	**Reporting Limit**	**Units**
Analytes:							
Benzene	**11**	**15**	**18**	ND	**60**	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	**27**	**96**	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	**9**	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	16	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

Sample ID:	**B1-SG**	**B2-SG**	**B3-SG**	**B4-SG**	**B5-SG**		
Jones ID:	**ST-19197-01**	**ST-19197-02**	**ST-19197-03**	**ST-19197-04**	**ST-19197-05**	**Reporting Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	**198**	**3260**	**400**	**98**	**201**	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	**100**	**1300**	**22**	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	**219**	**56**	ND	8	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	**21**	ND	ND	**18**	8	µg/m3
Styrene	ND	ND	ND	**40**	**63**	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	16	µg/m3
Tetrachloroethene	**20**	**9**	ND	ND	ND	8	µg/m3
Toluene	**46**	**56**	**57**	**9**	**298**	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	16	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	**11**	**36**	**21**	**20**	**80**	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	**12**	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	**866**	**15500**	**1710**	**516**	**939**	16	µg/m3
o-Xylene	**304**	**5790**	**600**	**222**	**368**	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	1200	µg/m3
Tracer:							
n-Pentane	ND	ND	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	ND	ND	80	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	106%	102%	101%	100%	100%	60 - 140	
Toluene-d_8	96%	99%	94%	95%	95%	60 - 140	
4-Bromofluorobenzene	101%	104%	99%	100%	100%	60 - 140	
Batch ID:	SG1-022122-01	SG1-022122-01	SG1-022122-01	SG1-022122-01	SG1-022122-01		

ND = Value below reporting limit

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Partner Engineering & Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd., Suite 200 Torrance, CA	**Jones Ref. No.:** **Client Ref. No.:**	ST-19197 22-356922.1
Attn:	J. Mangine	**Date Sampled:** **Date Received:**	2/18/2022 2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21/2022
Project Address:	APN 8126-033-025 Whittier, CA 90603	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

Sample ID: **B6-SG**

Jones ID: **ST-19197-06**

Analytes:		**Reporting Limit**	**Units**
Benzene	**26**	8	µg/m3
Bromobenzene	ND	8	µg/m3
Bromodichloromethane	ND	8	µg/m3
Bromoform	ND	8	µg/m3
n-Butylbenzene	ND	12	µg/m3
sec-Butylbenzene	ND	12	µg/m3
tert-Butylbenzene	ND	12	µg/m3
Carbon tetrachloride	ND	8	µg/m3
Chlorobenzene	ND	8	µg/m3
Chloroform	ND	8	µg/m3
2-Chlorotoluene	ND	12	µg/m3
4-Chlorotoluene	ND	12	µg/m3
Dibromochloromethane	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	8	µg/m3
Dibromomethane	ND	8	µg/m3
1,2- Dichlorobenzene	ND	16	µg/m3
1,3-Dichlorobenzene	ND	16	µg/m3
1,4-Dichlorobenzene	ND	16	µg/m3
Dichlorodifluoromethane	ND	16	µg/m3
1,1-Dichloroethane	ND	8	µg/m3
1,2-Dichloroethane	ND	8	µg/m3
1,1-Dichloroethene	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	8	µg/m3
1,2-Dichloropropane	ND	8	µg/m3
1,3-Dichloropropane	ND	8	µg/m3
2,2-Dichloropropane	ND	16	µg/m3
1,1-Dichloropropene	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

Sample ID: B6-SG

Jones ID: ST-19197-06

		Reporting Limit	Units
Analytes:			
cis-1,3-Dichloropropene	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	8	µg/m3
Ethylbenzene	**35**	8	µg/m3
Freon 113	ND	16	µg/m3
Hexachlorobutadiene	ND	24	µg/m3
Isopropylbenzene	ND	8	µg/m3
4-Isopropyltoluene	ND	8	µg/m3
Methylene chloride	ND	8	µg/m3
Naphthalene	ND	40	µg/m3
n-Propylbenzene	**21**	8	µg/m3
Styrene	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	16	µg/m3
Tetrachloroethene	ND	8	µg/m3
Toluene	**110**	8	µg/m3
1,2,3-Trichlorobenzene	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	16	µg/m3
1,1,1-Trichloroethane	ND	8	µg/m3
1,1,2-Trichloroethane	ND	8	µg/m3
Trichloroethene	ND	8	µg/m3
Trichlorofluoromethane	ND	16	µg/m3
1,2,3-Trichloropropane	ND	8	µg/m3
1,2,4-Trimethylbenzene	**210**	8	µg/m3
1,3,5-Trimethylbenzene	**61**	8	µg/m3
Vinyl chloride	ND	8	µg/m3
m,p-Xylene	**204**	16	µg/m3
o-Xylene	**90**	8	µg/m3
MTBE	ND	40	µg/m3
Ethyl-tert-butylether	ND	40	µg/m3
Di-isopropylether	ND	40	µg/m3
tert-amylmethylether	ND	40	µg/m3
tert-Butylalcohol	ND	1200	µg/m3
Tracer:			
n-Pentane	ND	80	µg/m3
n-Hexane	ND	80	µg/m3
n-Heptane	ND	80	µg/m3

Dilution Factor 1

Surrogate Recoveries:		**QC Limits**
Dibromofluoromethane	99%	60 - 140
Toluene-d_8	95%	60 - 140
4-Bromofluorobenzene	99%	60 - 140

Batch ID: SG1-022122-01

ND = Value below reporting limit

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Partner Engineering & Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd., Suite 200 Torrance, CA	**Jones Ref. No.:** **Client Ref. No.:**	ST-19197 22-356922.1
Attn:	J. Mangine	**Date Sampled:** **Date Received:**	2/18/2022 2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21/2022
Project Address:	APN 8126-033-025 Whittier, CA 90603	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

Sample ID:	**METHOD BLANK**	**SAMPLING BLANK**		
Jones ID:	**022122-SG1MB1**	**022122-SG1SB1**	**Reporting Limit**	**Units**
Analytes:				
Benzene	ND	ND	8	µg/m3
Bromobenzene	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	8	µg/m3
Bromoform	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	8	µg/m3
Chloroform	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	8	µg/m3
Dibromomethane	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	16	µg/m3
1,1-Dichloroethane	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	10	µg/m3

JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

Sample ID:	METHOD BLANK	SAMPLING BLANK		
Jones ID:	**022122-SG1MB1**	**022122-SG1SB1**	**Reporting Limit**	**Units**
Analytes:				
cis-1,3-Dichloropropene	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	8	µg/m3
Freon 113	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	8	µg/m3
Methylene chloride	ND	ND	8	µg/m3
Naphthalene	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	8	µg/m3
Styrene	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	16	µg/m3
Tetrachloroethene	ND	ND	8	µg/m3
Toluene	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	8	µg/m3
Trichloroethene	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	16	µg/m3
1,2,3-Trichloropropane	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	16	µg/m3
o-Xylene	ND	ND	8	µg/m3
MTBE	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	1200	µg/m3
Tracer:				
n-Pentane	ND	ND	80	µg/m3
n-Hexane	ND	ND	80	µg/m3
n-Heptane	ND	ND	80	µg/m3
Dilution Factor	1	1		
Surrogate Recoveries:			**QC Limits**	
Dibromofluoromethane	106%	105%	60 - 140	
Toluene-d_8	97%	96%	60 - 140	
4-Bromofluorobenzene	101%	102%	60 - 140	
Batch ID:	SG1-022122-01	SG1-022122-01		

ND = Value below reporting limit

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Partner Engineering & Science, Inc.	**Report date:**	2/25/2022
Client Address:	2154 Torrance Blvd., Suite 200 Torrance, CA	**Jones Ref. No.:** **Client Ref. No.:**	ST-19197 22-356922.1
Attn:	J. Mangine	**Date Sampled:** **Date Received:**	2/18/2022 2/18/2022
Project:	Whittier	**Date Analyzed:**	2/21/2022
Project Address:	APN 8126-033-025 Whittier, CA 90603	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

Batch ID: SG1-022122-01

Jones ID:	**022122-SG1LCS1**	**022122-SG1LCSD1**			**022122-SG1CCV1**	
Parameter	LCS Recovery (%)	LCSD Recovery (%)	RPD	Acceptability Range (%)	CCV	Acceptability Range (%)
Vinyl chloride	62%	70%	11.6%	60 - 140	94%	80 - 120
1,1-Dichloroethene	139%	131%	5.8%	60 - 140	98%	80 - 120
Cis-1,2-Dichloroethene	121%	119%	2.4%	70 - 130	105%	80 - 120
1,1,1-Trichloroethane	109%	102%	6.4%	70 - 130	96%	80 - 120
Benzene	117%	113%	3.4%	70 - 130	99%	80 - 120
Trichloroethene	120%	116%	3.7%	70 - 130	104%	80 - 120
Toluene	108%	104%	4.0%	70 - 130	99%	80 - 120
Tetrachloroethene	104%	103%	1.4%	70 - 130	93%	80 - 120
Chlorobenzene	106%	102%	4.0%	70 - 130	115%	80 - 120
Ethylbenzene	105%	99%	5.3%	70 - 130	109%	80 - 120
1,2,4 Trimethylbenzene	99%	98%	1.5%	70 - 130	117%	80 - 120
Surrogate Recovery:						
Dibromofluoromethane	112%	111%		60 - 140	113%	60 - 140
Toluene-d_8	96%	96%		60 - 140	97%	60 - 140
4-Bromofluorobenzene	105%	105%		60 - 140	106%	60 - 140

LCS = Laboratory Control Sample
LCSD = Laboratory Control Sample Duplicate
CCV = Continuing Calibration Verification
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 20%

Chain-of-Custody Record

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Turn Around Requested:
- ☐ Immediate Attention - 200%
- ☐ Rush 24 Hours - 100%
- ☐ Rush 48 Hours - 50%
- ☐ Rush 72 Hours - 25%
- ☐ Rush 96 Hours - 10%
- ☑ Normal - No Surcharge

LAB USE ONLY
Jones Project # ST-19197
Page 1 of 4

Client	P.E.S.
Project Name	Whittier
Project Address	APN ~~811-26~~ 8126-033-025 Whittier, CA 90603
Email	jmangine@parthergsi.com
Phone	(831) 359-5041
Report To	S. Mangine
Sampler	H. Gutierrez
Date	2/18/22
Client Project #	22-756922.1

Sample Container / Preservative Abbreviations
AS - Acetate Sleeve
SS - Stainless Steel Sleeve
BS - Brass Sleeve
G - Glass
AB - Amber Bottle
P - Plastic
SOBI - Sodium Bisulfate
MeOH - Methanol
HCl - Hydrochloric Acid
HNO3 - Nitric Acid
O - Other (See Notes)

Report Options
EDD ____
EDF* - 10% Surcharge ____
*Global ID ____

Sample ID	Sample Collection Date	Sample Collection Time	Laboratory Sample ID	Preservative	Sample Container	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Free Product (FP)	Analysis Requested: TPH-cc8015/8260	VOCs 8260	CAM17 Metals 6010/7471	Number of Containers	Notes & Special Instructions
B1-2		9:48	ST-19197-01		SLEEVE & 3 VOAs	S					
B1-5		10:03	ST-19197-02				X	X	X		
B1-10		10:10	ST-19197-03								
B1-15		10:19	ST-19197-04								
B2-2		10:31	ST-19197-05								
B2-5		10:37	ST-19197-06								
B2-10		10:43	ST-19197-07				X	X	X		
B2-15		10:57	ST-19197-08								
B3-2		11:16	ST-19197-09								
B3-5		11:22	ST-19197-10				X	X	X		

Relinquished By (Signature)	Printed Name: Hermon Gutierrez	Received By (Signature)	Printed Name
Company: P.E.S.	Date: 2/18/22 Time: 1631	Company	Date Time
Relinquished By (Signature)	Printed Name	Received By Laboratory (Signature)	Printed Name: Jose Camacho
Company	Date: Time	Company: Jones Env.	Date: 2-8-22 Time: 1631

Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

Chain-of-Custody Record

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Turn Around Requested:
- ☐ Immediate Attention - 200%
- ☐ Rush 24 Hours - 100%
- ☐ Rush 48 Hours - 50%
- ☐ Rush 72 Hours - 25%
- ☐ Rush 96 Hours - 10%
- ☒ Normal - No Surcharge

LAB USE ONLY
Jones Project # ST-19197
Page 2 of 4

Client	P.E.S.
Project Name	Whittier
Project Address	See page 1
Email	
Phone	
Report To	Sampler
Date	2/18/22
Client Project #	22-356922.1

Sample Container / Preservative Abbreviations
AS - Acetate Sleeve
SS - Stainless Steel Sleeve
BS - Brass Sleeve
G - Glass
AB - Amber Bottle
P - Plastic
SOBI - Sodium Bisulfate
MeOH - Methanol
HCl - Hydrochloric Acid
HNO3 - Nitric Acid
O - Other (See Notes)

Report Options
EDD ____
EDF* - 10% Surcharge ____
*Global ID ____

Sample ID	Sample Collection Date	Sample Collection Time	Laboratory Sample ID	Preservative	Sample Container	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Free Product (FP)	Analysis Requested: TPH-cc 8015/8260	VOCs 8260	CAM17 Metals 6010/7471	Number of Containers	Notes & Special Instructions
B3-10	2/18/22	11:31	ST-19197-11		SLEEVE & 3 VOAs	S					
B3-15		11:45	ST-19197-12								
B4-2		12:27	ST-19197-13								
B4-5		12:33	ST-19197-14								
B4-10		12:40	ST-19197-15								
B4-15		12:50	ST-19197-16				X	X	X		
B5-2		13:17	ST-19197-17								
B5-5		13:25	ST-19197-18								
B5-10		13:29	ST-19197-19								
B5-15		13:39	ST-19197-20				X	X	X		

Relinquished By (Signature)	Printed Name: Hernan Gutierrez	Received By (Signature)	Printed Name
Company: P.E.S.	Date: 2/18/22 Time	Company	Date Time
Relinquished By (Signature)	Printed Name	Received By Laboratory (Signature)	Printed Name: Juan Camacho
Company	Date: Time	Company: Jones Env.	Date: 2-18-22 Time: 1631

Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

Chain-of-Custody Record

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Turn Around Requested:
- ☐ Immediate Attention - 200%
- ☐ Rush 24 Hours - 100%
- ☐ Rush 48 Hours - 50%
- ☐ Rush 72 Hours - 25%
- ☐ Rush 96 Hours - 10%
- ☒ Normal - No Surcharge

LAB USE ONLY
Jones Project # ST-19197
Page 3 of 4

Client	P.E.S
Project Name	Whittier
Project Address	See page 1
Email	
Phone	
Report To	Sampler
Date	2/18/22
Client Project #	22-3569221

Sample Container / Preservative Abbreviations
AS - Acetate Sleeve
SS - Stainless Steel Sleeve
BS - Brass Sleeve
G - Glass
AB - Amber Bottle
P - Plastic
SOBI - Sodium Bisulfate
MeOH - Methanol
HCl - Hydrochloric Acid
HNO3 - Nitric Acid
O - Other (See Notes)

Report Options
EDD ____
EDF* - 10% Surcharge ____
*Global ID ____

Sample ID	Sample Collection Date	Sample Collection Time	Laboratory Sample ID	Preservative	Sample Container	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Free Product (FP)	Analysis Requested: TPH-cc 8015/8260	VOCs 8260	CAM17 Metals 6010/7471	Number of Containers	Notes & Special Instructions
B6-2		13:58	ST-19197-21		SLEEVE & SVOAs	S					
B6-5		14:07	ST-19197-22								
B6-10		14:13	ST-19197-23				X	X	X		
B6-15		14:22	ST-19197-24								

Relinquished By (Signature)	Printed Name: Hernan Gallegos	Received By (Signature)	Printed Name	Total Number of Containers
Company: P.E.S.	Date: 2/19/22 Time:	Company	Date Time	
Relinquished By (Signature)	Printed Name	Received By Laboratory (Signature): Juan Camacho	Printed Name: Juan Camacho	Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.
Company	Date: Time:	Company: Jonesenv	Date: 2-18-22 Time: 1631	

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Air Chain-of-Custody Record

Lab Use Only
Jones Project # ST-19197
Page 4 of 4

Client: P.E.S.
Client Address: Whittier
Project Name: See Page 1
Project Address:
Report To:
Email/Phone: Sampler:

Date: 2/18/22
Client Project # 22-356922.1

Purge Rate: _____ cc/min
Shut In Test: Y / N

Turn Around Requested
- ☐ Immediate Attention - 200%
- ☐ Rush 24 Hours - 100%
- ☐ Rush 48 Hours - 50%
- ☐ Rush 72 Hours - 25%
- ☐ Rush 96 Hours - 10%
- ☒ Normal - No Surcharge

Summa Cannister Size
☐ 1L ☐ 6L

Tracer
- ☒ n-pentane
- ☒ n-hexane
- ☒ n-heptane
- ☐ Helium
- ☐ 1,1-DFA
- ☐ _____

Report Options
EDD ____
EDF* - 10% Surcharge____
*Global ID _____

Gasoline Range Organics
☐ Yes ☐ No

Units Requested
☐ ug/m3 ☐ ug/L ☐ ppmV

Sample ID	Date Collected	Purge Number	Purge Volume	Laboratory Sample ID	Canister ID	Cannister Start Pressure	Cannister End Pressure	Flow Rate (cc/min)	Sampling Start Time	Sampling End Time	Analysis Requested: H.C.'s TO-15 VOCs	8260B VOCs	Magnehelic Reading (in/H_2O)	Number of Containers
B1-SG	2/18/22			ST-19197-25		-31	-1		13:31	13:41	X	X		
B2-SG				ST-19197-26		-31	-2		13:45	13:49	X	X		
B3-SG				ST-19197-27		-31	-10		14:00	14:15	X	X		
B4-SG				ST-19197-28		-31	-5		14:43	14:50	X	X		
B5-SG				ST-19197-29		-31	-5		16:35	16:45	X	X		
B6-SG				ST-19197-30		-31	-5		16:40	16:49	X	X		

Relinquished By (Signature): Date: 2/18/22
Company: PES Time: 1631
Relinquished By (Signature): Date:
Company: Time:

Recieved By (Signature): Date:
Company: Time:
Recieved By Laboratory (Signature): Date: 2-18-22
Company: Jones Env. Time: 1631

The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specificied above under the Terms and Conditions set forth

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SAMPLE RECEIPT FORM

Jones ID: JT-19197

CLIENT: Partner
DATE/TIME (LAB RECEIVED): 2-18-22 1631
PROJECT: 22-356922-1
RECEIVED BY:
Delivered by: ☒ Client ☐ Jones Courier ☐ UPS / FedEx / USPS ☐ Other

TEMPERATURE: Thermometer ID: T-1 (Corrected Temp.) Calibration Due: 08/03/2022

Temperature Cooler #1 15.5 °C ± the CF(-0.1°C) 15.0 °C Blank Sample (Sample)

Temperature Cooler #2 _____ °C ± the CF (0.5°C) _____ °C Blank Sample

Temperature Criteria: 0 ≤ 6°C (NO frozen containers) Criteria Met? ☐ Yes ☒ No

If criteria is not met:

Sample Received on ice? ☒ Yes ☐ No*

Sample received Chilled on same day of sampling? ☒ Yes ☐ No*

Checked By: JC

SAMPLE CONDITION:	YES	NO*	N/A
Chain of Custody (COC) received filled out completely	☒	☐*	☐
Total number of containers received match COC	☒	☐*	☐
Sample container label(s) consistent with COC	☒	☐*	☐
Sample container(s) intact and in good condition	☒	☐*	☐
Proper containers and sufficient volume for analyses requested on COC	☒	☐*	☐
Proper preservative indicated on COC/container for analyses requested	☐	☐*	☒
Volatile analysis container(s) free of headspace (EPA 8260 water)	☐	☐*	☒
Custody Seals Intact on Cooler/Sample	☐	☐*	☒

CONTAINER TYPE:

Solid:
- 5035 Kits: 24
- Glass Jar: _____
- Sleeve: 24
- Other: _____

Aqueous:
- Amber Bottle: _____
- VOAs: _____
- Poly Bottle: _____
- 5030 Kits: _____
- Other: _____

Air / Soil Gas:
- Tedlar Bag: _____
  - 6 hr
  - 72 hr
  - 5 Say
- Summa:
  - (1L) 6 (6L) _____

MILEAGE:

Round Trip Mileage: _____ Travel Time: _____ On Site Time: _____

**Complete Non-Conformance if checked*

Checked by: JC