

REUBEN, JUNIUS & ROSE, LLP

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July 12, 2022

Delivered Via Email

Honorable Members of the Oakland City Council
c/o Peterson Vollmann, Planner IV
250 Frank H. Ogawa Plaza, Suite 2114
Oakland, California 94612
Pvollmann@oaklandca.gov

Re: 1396 5th Street | Appeal of PLN20-101
Hearing Date: July 19, 2022
Our File No.: 11618.01

Dear President Bas and Council Members:

At the September 21, 2021, and April 19, 2022, City Council hearings, council indicated a desire for further analysis of potential hazardous materials at 1396 5th Street (the “**Property**”). Concern was expressed regarding possible environmental impacts from the construction of a 222-unit housing project with 16 affordable units to very-low income households (the “**Project**”). In response, additional environmental analysis was conducted by the developer’s environmental engineer (Citadel EHS), the City’s environmental consultant (Urban Planning Partners Inc.), and the Alameda County Department of Environmental Health (“**ACDEH**”). Based on that additional review it was found that “[g]iven that the additional information provided does not alter the requirements necessary for the project to proceed, and all hazardous materials concerns were previously addressed in the WOSP EIR as well as by the City’s [Standard Conditions of Approval], [City] staff concludes that the requirement for any supplemental and/or infill EIR would be inappropriate and not justified.” (July 19, 2022, Staff Report, p. 4.)

Under the oversight of the ACDEH, the Project’s environmental engineer prepared a Phase 2 environmental site analysis (attached as **Exhibit A**). In addition, the City’s consultant, Urban Planning Partners Inc. prepared an additional hazardous materials investigation (attached as **Exhibit B**) and the ACDEH has issued a conditional approval of the Project’s Voluntary Remediation Action Agreement (attached as **Exhibit C**). This additional review was performed even though outside the typical order of operations for development of a project tiering off a specific plan Environmental Impact Report (“**EIR**”).

Appellant continues to request an infill EIR. (See July 7, 2022, letter.) The additional environmental analysis, however, confirms there is not substantial evidence in the record to support requiring an infill EIR. As such, we request you deny the present appeal and allow the Project to proceed so that much needed housing can be built.

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President Nikki Fortunato Bas and Council Members
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Though the Project's 2021 CEQA Analysis identified the Project site as *potentially* being impacted by hazardous materials, it determined the Project *would not result in an increase in the impacts* analyzed and disclosed in the WOSP EIR. The CEQA Analysis concluded the Project did not require major revisions to the WOSP EIR because the Project did not propose any changes to the density, land use policies, or character of the plan's land use and zoning designation.

The supplemental environmental analysis re-confirms that the Project's tiering off the WOSP EIR is appropriate. "Since the WOSP EIR was prepared there have been no activities at the project site or at nearby upgradient properties that would increase potential hazardous materials contamination at the project site [and the] new information has confirmed that soil contamination conditions at the project site have significantly improved due to the implementation of the [Remedial Action Plan]" (Exhibit B, p. 79.)

There is nothing peculiar about the Project and its tiering off the WOSP EIR. An infill EIR is not warranted and requiring one would be an abuse of discretion. As identified in the supplemental environmental analysis, protective measures are available, *e.g.*, a vapor intrusion mitigation system or vapor barrier. Those remediation measures will be overseen by the ACDEH as required by the executed Voluntary Remediation Action Agreement. The City's Standard Conditions of Approval imposed on the Project require that the remediation measures imposed by the ACDEH must be performed. Complying with those measures will safeguard the health and safety of the Project's construction workers and future residents.

The West Oakland Specific Plan's "vision for the 7th Street Opportunity Area includes higher-density housing . . . [and] specifically reflects the desire for a new TOD [Transit-Oriented Development] neighborhood to be built on the currently vacant sites and parking lots surrounding the West Oakland BART Station." (WOSP, p. 4-44.) The Project embraces and brings to fruition the City's vision for the 7th Street Opportunity Area, including higher-density housing around the West Oakland BART Station. We urge you deny the appeal and allow the Project to proceed. If you have any questions please do not hesitate to contact to me at 415.567.9000 or jzucker@reubenlaw.com. Thank you.

Very truly yours,

REUBEN, JUNIUS & ROSE, LLP



Justin A. Zucker

cc: Michael Branson, City Attorney (*via email*, mbranson@oaklandcityattorney.org)
Michaels Organization (*via email*, scooper@tmo.com)

Enclosures: Exhibit A – Phase 2
Exhibit B – Urban Planning Partners Inc. Suppl. hazardous materials investigation
Exhibit C – Project's Voluntary Remediation Action Agreement

REUBEN, JUNIUS & ROSE, LLP

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Exhibit A



CITADEL EHS

assess • resolve • strengthen

March 2, 2022

Scott Cooper
Vice President
THE MICHAELS DEVELOPMENT COMPANY
2020 West Kettleman Lane
P.O. Box 1570
Lodi, California 95241

Re: Alameda County Health Care Services Agency,
Department of Environmental Health, Case No. RO0002896
CITADEL Project No. 0849.1004.0
Phase II Subsurface Investigation Report
Proposed Golden West Residential Development
1396 Fifth Street
Oakland, California 94607

Dear Mr. Cooper:

Citadel EHS (Citadel) is pleased to provide you with this Phase II Subsurface Investigation Report for the above-referenced location.

The Phase II Subsurface Investigation was conducted in accordance with Citadel's Proposal 0849.1003.P, dated September 15, 2021, a Work Plan submitted to the Alameda County Department of Environmental Health on October 6, 2021, and supplemental request for information dated January 31, 2022.

If, after your review, you have any questions or require additional information, please do not hesitate to telephone me at (818) 246-2707.

Sincerely,
CITADEL EHS

Mark Drollinger, M. Eng., CSP, CHMM
Principal, Engineering and Environmental Sciences

Enclosure



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Michaels Development
2020 West Kettleman Lane
P.O. Box 1570
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Phase II Subsurface Investigation Report

March 2, 2022

Citadel Project Number 0849.1004.0

Proposed Golden West Residential Development
1396 Fifth Street
Oakland, California 94607

Alameda County Health Care Services Agency,
Department of Environmental Health, Case No. R00002896

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1.0 INTRODUCTION

Citadel EHS (Citadel) has prepared this Phase II Subsurface Investigation (Phase II) Report for the property located at 1396 Fifth Street in the City of Oakland, California (Site). The Site is currently a vacant lot covering approximately 33,394 square feet (SF) of land. The future Site development is under regulatory review by the Alameda County Department of Environmental Health (ACDEH) and has been assigned Case ID RO0003500 and GeoTracker Global ID T10000017095.

The Site is identified by County of Alameda Assessor's Parcel Number 004-69-004. The Site is an irregular shaped parcel of land situated along the north side of Fifth Street, between Mandela Parkway to the east, and Kirkham Street to the west. An elevated BART track and right-of-way is situated along the northern boundary of the Site. The Site lies at an elevation of approximately 10 feet above mean sea level (AMSL) (USGS, 2018) and generally slopes north to south. A Site Location Map is included as Figure 1 and Site Map as Figure 2.

2.0 BACKGROUND

Historically, the Site has been occupied by various food grade industries including yeast and vinegar production and a brewery from at least 1880 through 2003. Primary demolition of the main manufacturing buildings and outer structures began in 2003 and continued through 2011 with supplemental removals of sewer connections and structural pilings. Environmental concerns identified at the Site have included above ground and underground fuel tanks, the use of various chemicals with documented releases, and an unauthorized release of mercury to the sewer system with impacts to the subsurface soil. A layer of artificial fill extends across much of the Site. Previous testing indicated the fill consisted of elevated levels of lead in some areas, and detectable but generally low concentrations of mercury. In 2011, approximately 8,575 cubic yards of soil was removed as non-hazardous along with approximately 31 cubic yards of non-RCRA hazardous soil due to the presence of lead and mercury. Following excavation, confirmation soil samples were collected and analyzed for mercury and lead. No mercury was reported above the method detection limit and one soil sample along the eastern side of the Site was reported with a lead concentration of 93 milligrams per kilogram (mg/kg) which was slightly greater than the guideline concentration of 80 mg/kg lead (Citadel, 2012a). Soil from this location was excavated and removed as part of the larger removal.

During development of the Site, three underground storage tanks (USTs) were discovered under the sidewalk along Fifth Street. In October 2011, each UST was opened and sampled for disposal profiling of the contents. In November 2011 soils were excavated from above and along the sides of the USTs in order to expose their tops and walls in preparation for removal. During removal of the overburden at UST No. 4 at the corner of Mandela Parkway and Fifth Street, live utility lines were observed crossing the top of the UST. The Oakland Fire Department (OFD) Inspector approved UST No. 4 to be closed in-place by removing the contents and filling the UST with concrete slurry (Citadel, 2012b).

2012

During late-stage vertical construction in 2012, a fire occurred at the Site significantly damaging the Site structure and surrounding properties. After removing debris from the fire, the Site consisted of a concrete podium. The podium was demolished, and the debris removed in April 2016.

2016

In June 2016, the Michaels Development Company (Michaels) contracted with Citadel to evaluate the Site for permanent regulatory closure. With the approval of the ACDEH, Citadel advanced 15 soil borings at the Site collecting continuous soil cores at each of the 15 locations for geologic characterization of the fill and native material at the Site. The contact between fill and native soil was logged at each boring location. Three soil borings were advanced adjacent to former USTs 1, 3 and 4 to evaluate soil and groundwater in these areas. Groundwater samples were collected from two borings to evaluate groundwater upgradient of the former USTs. The remaining borings were located across the Site.

Based on the analytical reporting soil collected from fill material did not exceed the San Francisco Bay Regional Water Quality Control Boards (SFBRWQCB) Tier 1 Environmental Screening Levels (ESLs) for total petroleum hydrocarbons (TPH) as gasoline (TPHg), TPH as diesel (TPHd), TPH as oil (TPHo), volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs) or Title 22 heavy metals with the exception of arsenic. The concentrations of arsenic from fill were found to be slightly higher (between 3.6 and 5.7 mg/kg) than underlying native soil (between 2.0 and 3.7 mg/kg). Arsenic concentrations from fill and native soils did not exceed the background levels for arsenic (Duverge, 2011).

The presence of polycyclic aromatic hydrocarbons (PAHs) was reported in shallow soils. The presence of PAH's commonly occurs as a by-product of combustion and from higher molecular hydrocarbons such as wood coatings. The low-level concentrations of PAHs are believed to result from the fire that occurred in 2012. PAHs typically impact human health from direct exposures.

Groundwater was encountered at approximately 11 feet below ground surface (bgs) in the borings extended to groundwater. Groundwater samples were analyzed for VOCs and TPH. Maximum TPH and VOC concentrations in groundwater were observed along the northern boundary of the Site. From reviews of environmental reports submitted to the SFBRWQCB on behalf of properties north of the Site, the groundwater gradient in the near vicinity appears to flow in a south-southwest direction. Groundwater samples collected from two upgradient sampling locations near the BART right-of-way (ROW) were reported to exceed the Tier 1 ESLs for TPHg, TPHd, benzene, toluene, ethylbenzene, xylenes (BTEX) and tertiary butyl alcohol (TBA). These contaminants are typical constituents of gasoline, Tier 1 ESLs for TPH and VOCs are driven by human health from direct exposure to shallow ground water.

The source of petroleum hydrocarbon contamination at the Site is likely to be the BART ROW that is immediately adjacent to the northern perimeter of the Site, or the former service station located approximately 175 feet north of the Site on the southeast corner of Mandel Parkway and 7th Street. Oil seepage from the BART ROW on the north side of the Site has been previously noted (Citadel, 2011, 2012a).

From this investigation Citadel concluded that future development would not be anticipated to include direct exposure to subsurface soils and shallow groundwater; and the maximum concentrations of the contaminants of potential concern (COPC) discussed above are below the published ESLs.

2017

In May 2017, (ACDEH, 2017) the ACDEH closed Cleanup Program Case No. RO0002896 based on an evaluation of health risks under the land use scenario as a vacant fenced lot at the time of case closure. The case was closed with the condition that any proposed change in land use be reviewed by ACDEH for reevaluation of human health risk from subsurface contamination at and

in the vicinity of the Site to construction workers and the community during redevelopment activities, and the Site users once the redevelopment is complete.

2021

In accordance with the 2017 ACDEH's change in land use condition of case closure, a Service Request Application for a Preliminary Site Review, dated May 18, 2021, was submitted by Oakland Housing Investors L.P. The purpose of the Site Review was to engage the ACDEH with regulatory oversight authority to change the land use designation from a vacant lot to residential use.

Based on ACDEH review of the case files, ACDEH concurred that any potential risk from subsurface contamination to construction workers, the adjacent community, and Site users could be mitigated during redevelopment activities through implementation of appropriate Site controls and permanent protective practices such as soil removal, installation of an approved vapor barrier and hardscaping of the entire Site.

ACDEH requested that the Client enter into a Voluntary Remedial Action Agreement with ACDEH to provide oversight of Site investigation activities to fill remaining data gaps to characterize soil and soil vapor at the Site. Information obtained from this investigation would be used to evaluate the current subsurface conditions, and provide recommendations for any contaminant mitigation measures that are protective of human and environmental health

Citadel prepared a Work Plan (Citadel, 2021) to address the apparent data gaps from previous investigations which included relatively few previous soil samples from native soils around the perimeter of the Site and no soil vapor sampling. The Work Plan was submitted on October 6, 2021, and approved by the ACDEH in an email dated November 11, 2021. A copy of the Work Plan is included in Appendix A and the ACDEH approval by email is included in Appendix B.

3.0 PRE-FIELD ACTIVITIES

A Water Resources Well Permit was obtained from the Alameda County Public Works Agency. A copy of the approved permit is included in Appendix C. Prior to on-site activities, a site-specific health and safety plan (HASP) was prepared. This HASP identified existing and potential hazards for workers at the Site during drilling and sample collection activities. A copy of the HASP is included in Appendix D.

To screen the Site for potential utilities, Citadel contacted Underground Service Alert (USA) North 811 for marking public utilities on and adjacent to the Site. A copy of the USA ticket is included in Appendix E.

Representatives from Pacific Gas and Electric (PG&E) met with Citadel at the site to further investigate the proposed drilling locations due to limited access to their utility vaults along Fifth Street. At the request of PG&E, select boring locations were hand augured due to a potential conflict with electrical lines in the vicinity of these borings.

4.0 SOIL AND SOIL VAPOR SAMPLING

On November 30, 2021, Citadel supervised the advancement of 12 shallow borings across the Site using a hand augur or direct push sampling rig operated by Trinity Drilling, Inc. The boring

numbering used by Citadel continued with the highest boring number from 2016 with Borings (B) B16 through B27. Borings B16, B17, B18, B22, B25 and B27 were placed along the east, south and west perimeter of the Site for the collection of additional native soil samples and soil vapor samples. Borings B19, B20, B21, B23, B24 and B26 were placed in the interior of the Site for the collection of soil vapor samples. Please refer to Figure 3 for the boring and sampling locations.

Soil

Each boring was advanced to approximately five feet bgs with soil samples collected at one, three and five feet bgs and labeled with the boring number and approximate depth. For example, the soil sample from boring B16 collected at one-foot bgs is labeled B16-1. Soil samples were described under the supervision of a California Professional Geologist, and field screened with a photoionization device (PID) for the presence of VOCs.

Thirty-six soil samples and two duplicate soil samples were transported the day they were collected under proper Chain-of-Custody (COC) protocols to Enthalpy Analytical (Enthalpy) in Berkley, California. Enthalpy is an Environmental Laboratory Accreditation Program (ELAP) certified laboratory. The soil samples from borings B16, B17, B18, B22, B25 and B27 were analyzed for TPH by EPA Methods 8015B/8015M, VOCs by EPA Method 8260B, PAHs by EPA Method 8270C-SIM, PCBs by EPA Method 8082 and Title 22 Metals by EPA Methods 6010B/7471A. The remaining samples were held by the laboratory and not analyzed.

Soil Vapor

Soil vapor probes were installed in all borings at five feet bgs or approximately one foot above groundwater if encountered during boring. Soil vapor probe depths and depths to groundwater are shown in the table below. Each soil vapor probe was set in accordance with the California Environmental Protection Agency's (Cal EPA) Department of Toxic Substance Control (DTSC) – Active Soil Gas Investigations Advisory (Advisory) (DTSC, 2015) and Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (DTSC, 2011). Soil vapor probe tips were placed within a sand pack at the proposed sampling depth. Approximately six inches of dry bentonite chips were placed over the sand pack, followed by placement of hydrated bentonite. Gas tight fittings were placed at the end of the probes at the surface. Each soil vapor probe was identified with the boring name and depth along with "V" to identify it as a soil vapor sample. For example, the soil vapor sample from boring B24 collected at five feet bgs is labeled B24-5V.

Boring Number	Drilling Method	Soil Vapor Probe Depth (feet)	Groundwater Depth (feet)	Sample Collected
B16	Direct Push	5.0	Not Encountered	No – Flooded
B17	Direct Push	3.5	4.0	Yes
B18	Hand Auger	1.5	2.5	Yes
B19	Hand Auger	3.5	4.5	No – Flooded
B20	Hand Auger	5.0	Not Encountered	Yes
B21	Direct Push	3.0	4.0	No – Flooded
B22	Direct Push	1.5	2.5	Yes
B23	Direct Push	1.5	2.0	No – Flooded
B24	Direct Push	5.0	Not Encountered	Yes
B25	Direct Push	3.0	4.0	Yes
B26	Direct Push	5.0	Not Encountered	No – Flooded
B27	Direct Push	2.5	4.0	Yes

Following the collection of soil samples and installation of soil vapor probes, a permanent traffic rated well box was installed at each location to protect the surface valving for the probes.

Soil vapor samples were collected following the procedure of the DTSC's Advisory approximately two days after the probes were installed. Soil vapor samples were collected in individually certified, one-liter Summa Canisters following the procedure of the DTSC's Advisory. A helium shroud was placed over the sampling equipment to allow for quantitative leak testing during the vapor sampling per the recommendations in DTSC's Advisory. Two duplicate soil vapor samples were collected for quality assurance/quality control (QA/QC).

Following the installation of the soil vapor probes, and before sampling of the soil vapor, groundwater seeped into the borings rendering the probes useless, therefore soil vapor samples were not collected from borings B16, B19, B21, B23 and B26. Duplicate samples were collected from B18 and B27. The soil vapor sampling from boring B24 encountered tight soils, limiting the volume of soil vapor that could be collected. During sampling the downhole and canister vacuums equalized at approximately 16 inches of mercury (Hg), therefore sampling was suspended for this location.

During sampling of B20, helium concentrations in the shroud could not be maintained at the desired concentration of 30 percent (30%). The helium canister was changed twice during the purging and sampling to maintain the desired helium concentrations. It was also observed during the purging of B20 that the vacuum of the purging canister was not dropping as would be expected. The purging canister was replaced with another canister to continue purging the sample tubing and probe. B20 was also intended as primary and duplicate sample. Following the completion of purging, it was noted that the vacuum on both the primary and duplicate sample canisters was at or near zero. The summa canisters were removed and replaced with a single summa canister and the sample was proceeded to be collected. During the purging and sampling, the helium meter did not indicate the presence of helium in the sample train however the reported helium concentrations in several samples, indicate that helium may have entered the sample train during the multiple canister changeouts, during purging activities or during sample collection.

The soil vapor samples were delivered under standard COC protocols to Enthalpy the day in which they were sampled and analyzed for TPHg using EPA Method TO-3, VOCs using EPA Method TO-15 and fixed gases (helium, carbon monoxide, carbon dioxide, oxygen, methane, and nitrogen) using ASTM D1946. Citadel's boring logs are included as Appendix F and field notes describing onsite activities are included as Appendix G.

5.0 SCREENING LEVELS

Laboratory results above the reporting limits (RL) in each soil and soil vapor sample were compared to the SFBRWQCB ESLs. The Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) and the DTSC Human Health Risk Assessment (HHRA) Note 3 were used when an ESL was not available. The ESLs are included in Tables 1 through 5. Groundwater samples were compared to the SFBRWQCB ESL Maximum Contaminant Level (MCL) Priority list which is a combination of available MCL values and the lower of the cancer and noncancer tap water direct exposure levels if an MCL is not available.

6.0 RESULTS AND ANALYSIS

Soil Results

Title 22 metals were all below their respective residential ESLs with the exception of arsenic. Arsenic concentrations were within normal background concentrations for sites within the San Francisco Bay area (Duverge, 2011). The Title 22 heavy metals results are summarized in Table 1.

No VOCs were reported above the laboratory MDLs in the samples analyzed with the exception of acetone in samples B22-3 and B22-3D, 2-butanone in sample B22-5 and diisopropyl ether (DIPE) in sample B25-5. The maximum concentration of acetone was 0.026J¹ mg/kg in both samples, the maximum concentration of 2-butanone is 0.0034J mg/kg and the maximum concentration of DIPE is 0.0003J mg/kg. All reported concentrations were at or just above the MDL and well below their respective residential ESLs for acetone and 2-butanone and below the residential RSL for DIPE.

TPH was reported in multiple samples above the MDL as diesel range organics (DRO) and oil range organics (ORO). TPHg was not reported above the MDL in any of the analyzed samples. DRO was reported in 17 samples with a maximum concentration of 36 mg/kg in sample B16-1. ORO was reported in all 20 samples analyzed with a maximum concentration of 110 mg/kg. These results are well below the respective residential ESLs for TPHd and TPHo of 260 mg/kg and 12,000 mg/kg. The VOC and TPH results are summarized in Table 2. Results of TPH and VOCs are shown on Figure 3.

PAHs were reported in multiple samples with 1-methylnaphthalene, 2-methylnaphthalene, anthracene, benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[g,h,i]perylene, benzo[k]fluoranthene, chrysene, fluoranthene, indeno[1,2,3-cd]pyrene, naphthalene, phenanthrene and pyrene reported in one or more samples. All PAH results are below their respective residential ESLs. PAH results are summarized in Table 3.

PCBs were reported in two samples collected in December 2021 with concentrations of Aroclor 1016 reported in samples B16-1 and B17-1 with a maximum concentration of 0.026 J mg/kg in B17-1. All PCB results are below their respective residential ESLs. PCB results are summarized in Table 4 and the Aroclor 1016 results are displayed on Figure 4.

Copies of the complete laboratory reports are included as Appendix H.

Soil Discussion

Based on the current investigation, all soil results are below their respective residential ESLs with the exception of arsenic which is within normal background concentrations for the area.

PCB concentrations reported in borings B16 and B17 were reported above the MDL as Aroclor 1016. The concentrations are well below the residential ESL for PCBs

Soil Vapor Results

Multiple VOCs and TPHg were reported above the laboratory RL in the soil vapor samples. TPHg exceeded the residential ESL of 20,000 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in sample B24-5V with a concentration of 35,000 $\mu\text{g}/\text{m}^3$. VOCs that exceeded the residential ESL for soil vapor in one or

¹ J - Analyte detected above the laboratory Method Detection Limit but below the Reporting Limit

more samples included benzene, ethylbenzene, bromodichloromethane, chloroform, tetrachloroethene (PCE) and vinyl chloride.

- Benzene exceeded the residential ESL of $3.2 \mu\text{g}/\text{m}^3$ in five of the seven locations with a maximum concentration of $2,800 \mu\text{g}/\text{m}^3$ in sample B24-5V. The remaining samples ranged in concentration from $2.7 \mu\text{g}/\text{m}^3$ to $17 \mu\text{g}/\text{m}^3$.
- Ethylbenzene exceeded residential ESL of $37 \mu\text{g}/\text{m}^3$ in one sample with a concentration of $41 \mu\text{g}/\text{m}^3$ in B24-5V.
- Bromodichloromethane exceeded the residential ESL of $2.5 \mu\text{g}/\text{m}^3$ in three samples with a maximum concentration of $6.0 \mu\text{g}/\text{m}^3$ in sample B22-1.5V.
- Chloroform exceeded the residential ESL of $4.1 \mu\text{g}/\text{m}^3$ in six of the seven soil vapor sample with a maximum concentration of $110 \mu\text{g}/\text{m}^3$ in sample B18-1.5V.
- PCE exceeded the residential ESL of $15 \mu\text{g}/\text{m}^3$ in two samples with a maximum concentration of $93 \mu\text{g}/\text{m}^3$ in sample B25-3V.
- Vinyl chloride exceeded the residential ESL of $0.32 \mu\text{g}/\text{m}^3$ in one sample with a concentration of $2.5 \mu\text{g}/\text{m}^3$ in sample B24-5V.

Other VOCs reported were either well below their respective residential ESLs or screening levels were not available. A summary of TPH and select VOCs in soil vapor is included in Table 5. The distribution of TPHg and VOCs is shown on Figure 3. Copies of the complete laboratory reports are included as Appendix H.

Soil Vapor Discussion

The soil vapor samples were collected using a helium shroud and maintaining a helium concentration of approximately 30% during the entire sampling process. An ambient air leak up to 5% is acceptable if quantitative tracer testing is performed by shrouding (DTSC, 2015). Helium was reported above the laboratory RL in five of the seven samples collected at concentrations ranging from less than 1% to 12%. Three samples exceeded the acceptable 5% concentration with 12% reported in B20-5V, 5.1% reported in B22-1.5V and 4.8% reported in B25-3V. The VOC and TPHg results from these samples are in general agreement with the remaining samples analyzed and **doesn't appear to be suppressing the VOC results. Therefore, these results were not excluded from the data set.** However given the shallow nature of the sample depths and that helium was reported in several samples, the results may be biased low.

Based on the soil vapor results from this investigation, the planned excavation of surface soils to approximately three feet bgs to mitigate contaminated soils and allow for structural compaction, and the installation of a vapor barrier as part of the proposed new construction, any remaining contaminants will not be a significant health risk to future occupants and workers. The elevated concentrations of TPHg and BTEX in B24-5V appears to be isolated as the concentrations in the other borings are significantly lower. These concentrations may be related to the former USTs that were removed from the southern edge of the Site or impacted groundwater from the upgradient railroad ROW and gasoline service station, although data collected during this investigation does not show a significant contribution of TPHg or BTEX from soil or groundwater at the Site.

Low levels of PCE and vinyl chloride reported in soil vapor samples do not appear to be sourced from the site based on current and historical soil and groundwater data collected at the Site. The soils containing these low concentrations are fill materials and will be removed as part of the Site redevelopment.

Bromodichloromethane and chloroform are trihalomethanes and are common byproducts from the chlorination of drinking water and are not considered to be contaminants from past activities at the Site.

The fill material encountered at the Site is highly compacted and has low permeability to soil vapor as evidenced by the equalization of vacuums at 16 inches of mercury (Hg) in the Summa canister and downhole gauges when collecting sample B24-5V. This was also evidenced by the difficulty in penetrating the hard packed soils drilling the groundwater sample borings.

Soils will be monitored during the Site redevelopment and any impacted soils encountered during excavation activities will be segregated, tested, and removed for offsite disposal.

7.0 SUPPLEMENTAL SOIL AND GROUNDWATER SAMPLING

On February 2 and 3, 2022, 20 borings (B28 through B47) were advanced across the Site using a hand augur, a rotary hammer drill or a handheld motorized auger to collect additional soil and groundwater samples. Borings B28 through B32 were placed near borings B16 and B17 to further delineate PCB concentrations in soil encountered in the December 2021 field work. Borings B33 through B47 were spaced evenly across the site to collect groundwater samples to further assess groundwater conditions on the Site potential offsite sources of petroleum and VOCs.

Soil

Borings B28 through B32 were advanced with a handheld rotary hammer drill which was decontaminated between uses with a liquinox and water wash followed by a deionized water rinse. Borings B28 through B30 and B32 were each advanced to two feet bgs and B31 was advanced to 1.5 feet bgs. Soil samples were collected at 0.5, 1.0, 1.5 and 2.0 feet bgs in two-foot borings and at 0.5, 1.0 and 1.5 feet bgs in boring B31. The samples were labeled with the boring number and approximate depth. A Site Map showing the sampling locations is included as Figure 5.

Nineteen soil samples were transported the day they were collected under standard Chain-of-Custody (COC) protocols to SGS North America Inc (SGS) in Hayward, California. SGS is an Environmental Laboratory Accreditation Program (ELAP) certified laboratory. The soil samples were analyzed for PCBs by EPA Methods 8082.

Groundwater

Fifteen groundwater borings were attempted. Several locations had multiple attempts, but refusal was encountered due to the hard packed base material. A combination of the rotary hammer drill and a handheld motorized auger were used to advance the borings. The drill bits were decontaminated between borings with a liquinox and water wash followed by a deionized water rinse. A summary of the boring results is in the table below:

Boring Number	Boring Depth (Feet)	Groundwater Sample Collected	Comments
B33	5	Yes	Completed
B34	2	No	Four attempts were made reaching a maximum of two foot. Boring abandoned.

B35	2	No	Four attempts were made reaching a maximum of two foot. Boring abandoned.
B36	3	Yes	Two attempts were unsuccessful, reached three feet and groundwater on the third attempt.
B37	3	Yes	Completed
B38	3	Yes	Completed
B39	3	Yes	Two attempts were unsuccessful, reached three feet and groundwater on the third attempt.
B40	3	Yes	Completed
B41	4	Yes	Completed
B42	1	No	Three attempts were made reaching a maximum of one foot. Boring abandoned.
B43	1	No	Refusal at one foot due to hard packed base material. Boring abandoned.
B44	2	No	Refusal at two feet in two attempts. Boring abandoned.
B45	3	Yes	Two attempts reached three feet before refusal without encountering groundwater. Location moved closer to fence and was successful.
B46	3	Yes	Two attempts reached three feet before refusal without encountering groundwater. Location moved closer to fence and was successful.
B47	4	Yes	Three attempts reaching a maximum of two feet bgs. Location moved closer to fence and was successful.

Following the completion of 10 borings, groundwater samples were collected from each boring with a new disposal bailer and placed in laboratory supplied sample containers. A duplicate groundwater sample was collected each day.

The samples were delivered under standard COC protocols to SGS the day in which they were sampled and analyzed for TPHg, TPHd and TPHo using EPA Method 8015C and VOCs using EPA Method 8260B.

Citadel's field notes describing onsite activities are included as Appendix G.

8.0 RESULTS AND ANALYSIS

Soil Results

Additional soil samples were collected in the February 2022 investigation to delineate the PCB concentrations reported in B16 and B17. PCBs in the delineation borings were not detected above the laboratory RLs. PCB results are summarized in Table 4 and the Aroclor 1016 results are indicated on Figure 6.

Groundwater Results

Multiple VOCs and TPH were reported above the laboratory MDLs in the groundwater samples. Results were compared to the MCL Priority list. Groundwater was encountered at depths between two and five feet during the December 2021 and February 2022 investigations.

Based on the groundwater sample results, a plume of TPHd and TPHo extends across the entire Site. Concentrations of TPHd range from 176J µg/L to 1,920 µg/L. The maximum concentrations are generally above 1,000 µg/L on the western end of the Site and reduce to less than 1,000 µg/L on the eastern end of the Site. All results exceeded the MCL Priority concentration of 200 µg/L except the in B37-GW. TPHo range from 106J µg/L to 606 µg/L. The maximum concentrations follow the same trend as TPHd with concentrations generally above 300 µg/L on the western end of the Site and below 300 µg/L on the eastern end of the Site. TPHg is only reported in one sample at 51.7J µg/L in B40-GW which is located in the north-central portion of the Site. Please refer to Figure 7.

Various VOCs were reported across the Site. The MCL Priority concentrations were not exceeded with any of the reported VOC concentrations. Benzene was reported in samples B39-GW and B40-GW-D at a maximum concentration of 0.47J µg/L. Toluene was reported in eight of the 10 samples collected with concentrations ranging between 0.37J µg/L in B41-GW and 2.6 µg/L in B40-GW-D. Ethylbenzene was reported in one sample with a concentration of 0.59J µg/L in B40-GW-D. Total xylenes were reported in four of 10 samples with concentrations ranging from 1.5J µg/L in G33-GW-D to 3.1 µg/L in B40-GW-D. Please refer to Figure 8. Other VOCs reported in one or more samples include acetone, 2-butanone, chlorobenzene, chloroform, cis-1,2-dichloroethene, methyl bromide, naphthalene, tetrahydrofuran, 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene. All reported concentrations were below the MCL Priority concentrations for acetone, 2-butanone, chlorobenzene, chloroform, cis-1,2-dichloroethene and naphthalene.

Laboratory results for TPH and select VOCs are included in Table 6.

Groundwater Discussion

Based on the distribution of TPH across the Site, the plume may be migrating onto the Site from an offsite source to the north. Groundwater flow is generally expected to flow to the south-southwest towards the Oakland Inner Harbor which is located approximately 3,300 feet south of the Site.

Several environmental cases were identified for sites located north of the Site. An active gasoline service station located approximately 140 feet north of the Site at 1395 Seventh Street on the corner Mandela Parkway and Seventh Street (Truckers Friend). The site has been an open case with the ACDEH since 1996. A former brewery located at 533 Kirkham Street also lies directly north of the Site. Information obtained from the DTSC EnviroStor website indicated that the site formerly had a crude oil UST located at the eastern end of the site and is an open environmental case with the DTSC. The former Smilo Chemical Company and J&A Truck Repair is located at 500 Kirkham Street and occupies the property located east of Kirkham between Fifth Street and Seventh Street. Based on their locations and the anticipated groundwater flow direction, they all could be contributing to the TPH plume beneath the Site.

9.0 DATA VALIDATION

Citadel performed a USEPA Level 2A validation of the laboratory analytical results. The data validation was performed to evaluate the usefulness and adequacy of the laboratory data for use in the vapor intrusion risk screening conducted as part of this investigation. Based on the results of the data validation, 100% of the data is acceptable. Data qualifiers were added to the soil results for samples B22-3 and B25-5 **were qualified with a "J-flag" (approximate values), due to the relative percent differences (RPD) between the normal and field duplicate samples exceeding 25% Data Validation. A "B" qualifier was added to several soil and groundwater TPH results indicating that the analyte was found in the sample and the associated laboratory blank.**

The data validation summary was prepared in accordance with the following documents:

- Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use. (USEPA, 2009)
- Advisory Active Soil Gas Investigations [California Environmental Protection Agency Department of Toxic Substances Control (DTSC), Los Angeles Regional Water Quality Control Board, and San Francisco Regional Water Quality Control Board, 2015]
- Supplemental Guidance: Screening and Evaluating Vapor Intrusion Draft for Public Comments (DTSC and California Water Resources Control Boards, 2020)

The following QA/QC parameters were evaluated, consistent with a USEPA Level 2A validation (USEPA, 2009)

- Holding times
- Sample preservation
- Field documentation
- Laboratory receiving forms and chains of custody (COC)
- Laboratory and field blanks
- Laboratory control sample/laboratory control sample

Field documentation, COC, and lab receiving notes were reviewed as part of the validation. Field forms were reviewed for compliance with the DTSC guidance (DTSC, 2015). Field documentation indicates all canisters had sufficient vacuum prior to sampling, each sample train had a successful shut-in test and field leak test using a helium shroud. Helium was detected in several of the vapor samples. The lab reports were evaluated for agreement with the COC documentation. Samples were received by Enthalpy in one-liter SUMMA canisters in good condition. The COC included in the reports recorded negative pressures for each canister on receipt by the lab. Qualifiers were not applied.

- Since the data objectives for the study is to conduct a vapor intrusion risk assessment the most conservative approach was taken with respect to the detections, which are qualified "J-" as estimated, assuming a low bias.
- Where applicable by the method requirements, Laboratory Control Samples and Laboratory Control Sample Duplicates (LCS/LCSD) percent recoveries (%R) and relative percent differences (RPDs) were reviewed during data validation. LCS/LCSD %R and RPDs were within control limits without exceptions.
- Surrogate percent recoveries were reviewed and were reported within the laboratory determined limit without exceptions.
- The SUMMA canisters were pressurized as required for testing per the method requirements. Non-detected results were reported to the reporting limit. Some of the sample results were reported as dilutions due to either a matrix effect or so the sample result would fall within the calibration range.
- Given the shallow nature of the sample depths and that helium was reported in several samples, the results may be biased low.
- Field duplicates were collected and analyzed for his project. Field duplicate RPD control limits for gas samples were 25%. Field duplicate RPD was only evaluated where one or both of the samples had a reported result above the RL.

10.0 CONCEPTUAL SITE MODEL

Geology

The Bay Area is identified as a structural depression within the geologically complex and seismically active California Coast Ranges Geomorphic Province. The Coast Ranges have been divided into the northwest-trending Coastal, Central, and Eastern tectonic belts, and include several sub-parallel northwest-trending faults, mountain ranges, and valleys characterize the Coast Ranges topography. The Bay is bordered by nearly parallel northwest-southeast trending mountain ranges; the Santa Cruz Mountains to the west and the Diablo Range to the east. Extensive late Cretaceous through early Tertiary folding and thrust faulting created complex geologic structural conditions that underlie the highly varied topography of today.

The City of Oakland has identified three Oakland-specific soil types that can be used for determining site specific target levels. These soil categories are Merritt Sands, sandy silts and clayey silts. Merritt sands are primarily located in flatlands to the west of Lake Merritt and consist of fine-grained silty sand with lenses of sandy clay and clay. Merritt sands typically feature low moisture content and high permeability. Sandy silts are generally found throughout the East Bay and consist of unconsolidated, moderately sorted sand, silt, and clay. These are considered moderate permeability deposits. Clayey silts are found primarily along the bay and estuary and typically contain organic material, peat, and thin lenses of sand. Clayey silts are typically low permeability deposits.

Based on drilling logs developed by Citadel as part of the previous and current subsurface investigations, shallow sediments across the Site consist of a mixture native and imported soils consisting of silty clay, clayey silt, sandy silt, and silty sand. The fill layer extends from the surface to an average depth of about four to five feet bgs across most of the Site and is underlain mostly by silty sand deposits that are assumed to represent the Merritt sand unit.

Hydrogeologic Setting

West Oakland is situated on the East Bay plains, a broad alluvial pediment consisting of a thick sequence of Pleistocene age alluvial and marine sediments. The basal Pleistocene sediments are overlain by Holocene age Bay Mud, and alluvial and fluvial deposits derived from the erosion of Diablo Range. The East Bay plains are bounded to the west by the San Francisco Bay, and to the east by the Hayward fault which forms a steep structural boundary between the thick alluvial deposits comprising the East Bay plain and mountains of the Diablo Range. The East Bay plains sediments mantle the Franciscan Assemblage Complex; Jurassic-Cretaceous age bedrock comprised mostly of detrital sedimentary rocks (sandstone, siltstone) with subordinate basaltic volcanic rock, chert and greenstone, with minor limestone. Bedrock at the subject site is on the order of 500 to 550 feet deep (as reported in Parikh, 2019).

Groundwater was present at approximately four feet bgs in March 2011 and 11 feet bgs in June 2016. Groundwater was found as shallow as two feet bgs during this investigation. Groundwater was encountered at the West Oakland BART station located approximately 320 feet northwest of the Site at depths between 6.5 and 11 feet bgs. (Parikh, 2019). Groundwater at the former Smilo Chemical site located north and east of the Site was encountered at depths ranging from four to 12 feet bgs in the portion of the site located north of the BART tracks and between four and 6.5 feet bgs in the portion south of the BART tracks.

Groundwater in the local area reportedly flows to the southwest and is part of the East Bay Sub Basin of the Santa Clara Valley Basin (Number 2-9.04). Existing beneficial uses include municipal, agricultural, and industrial process supply; however, it is probable that the groundwater is not suitable for these uses due to high total dissolved solid (TDS) content (reportedly as high as 2,400 milligram per liter (mg/L)). The TDS levels may be naturally occurring due to the proximity of the Site to the bay.

Source

A Phase I Environmental Site Assessment (Phase I) report was prepared by SCS Engineers (SCS) in 2018 (SCS, 2018). SCS identified two off-Site releases of petroleum products and hazardous wastes in the vicinity of the Site, the **Trucker's Friend facility** located approximately 140 feet north of the Site at 1395 Seventh Street, and J&A Truck Repair/Smilo Chemical Company located at 500 Kirkham Street directly east of the Site. Various former breweries were located at 533 Kirkham Street which is also directly north of the Site.

533 Kirkham Street: The eastern portion of the property was developed for use by various breweries since at least 1912 until 1961. The brewery included two stock houses, one of which contained a tank house with two above ground tanks and a 15,000-gallon underground crude oil tank. The Site has cleared and has been continuously used as a parking lot serving the West Oakland BART Station since 1968. A map shows the former aboveground tanks were located in the north central portion of the Site and the crude oil UST was located in the east central portion of the Site.

Truckers Friend: This facility is located on the north side of the BART right-of-way that is adjacent to the north side of the Site. One 520-gallon waste oil UST was removed from the facility in 1996 and in 1997, one 4,000-gallon unleaded gasoline UST, one 8,000-gallon diesel UST, and one 9,000-gallon diesel UST were removed along with the associated pipelines and fuel dispensers. These USTs were removed and replaced with a new 20,000-gallon double-walled UST.

The majority of the release from the gasoline/diesel system appears to have come from the pipelines and fuel dispensers with a maximum concentration of 20,000 parts per million (ppm) TPHd. The highest TPHg/TPHd concentrations from the former waste oil UST pit was reported to be 180/2,400 ppm, respectively.

An analytical report of groundwater samples collected near the UST pit did not report concentrations of TPHg or benzene, toluene, ethylbenzene, or xylenes. The samples were reported to have TPHd concentrations of 130, 140, 500, and 670 µg/L (SCS, 2008).

J&H Truck Repair/Smilo Chemical Company: This facility was assessed and mitigated as part of the Cypress Freeway (1-880) Reconstruction Project. The site was formerly known as Smilo Chemical Company, which operated as a chemical repackaging company. It was later used as a truck repair facility in which the facility occupied approximately one third of the property. It was reported that the "Completed PEA [Preliminary Endangerment Assessment] found the Site had elevated levels of petroleum hydrocarbons, PCBs, metals, semi-and volatile organic compounds" and that "Approximately 4,700 cubic yards of soil was excavated to six feet below ground surface.

An unpermitted 2,000-gallon UST and sump were used by the Smilo Chemical Company. A PEA report was completed in March 1995. Soil samples collected revealed elevated levels of TPHg (max. 6,500 ppm), TRPH total recoverable petroleum hydrocarbons (TRPH) (max. 4,500 ppm). Elevated levels of VOCs such as acetone (max. 250 ppm), benzene (max. 7,700 parts per billion (ppb)), and total xylenes (max. 250,000 ppb) were detected in soil samples collected near the sump and UST. Semi-VOCs (SVOCs), including Bis(2-Ethylhexyl) Phthalate (max. 250,000 ppb), were

also detected near the sump and UST. Ground water samples displayed high levels of VOCs including benzene (max. 15,000 µg/l), toluene (max. 2,100 µg/l) and total xylenes (max. 7,200 µg/l).

Records also reported a former 3,000-gallon diesel UST in the southeastern portion of the Site (Reported in SCS, 2008).

Contaminant and Exposure Pathways

Based on the assessment of all available data for the Site, the concentrations of VOCs in site environmental media do not pose adverse effects to human health and the environment provided a vapor barrier is installed as part of the Site redevelopment. This section summarizes sensitive receptors observed near the site, as well as a water supply well survey, potential exposure pathways, and comparison of VOC concentrations in site media to human health risk-based screening levels.

The Site fronts Fifth Street on the south, Mandela Parkway on the west, the BART ROW on the north and Kirkham Street on the East in Oakland, California. The Site and the surrounding commercial areas are primarily covered with asphalt, concrete or bare soils. Land use in the Site vicinity is primarily commercial/industrial or vacant. The closest residential neighborhood is located approximately 360 feet to the south and apartment buildings and additional residential areas begin approximately 370 feet north of the Site. Commercial and industrial properties surrounding the Site include:

- An active gasoline station and convenience store is located on the southeast corner of Mandela Parkway and Seventh Street approximately 140 feet north of the Site;
- The Oakland West BART station occupies the block immediately west of the Site;
- A water softener equipment supplier occupies a building is located on the southwest corner of Mandela Parkway and Fifth Street;
- A Civicorps Job Training center is located adjacent to the water softener equipment supplier on Fifth Street;
- An apparently abandoned warehouse and parking lot occupy the block directly south of the Site on Fifth Street;
- A vacant lot that was formerly the J&H Truck Repair/Smilo Chemical Company occupies the lot directly east of the Site and is bounded by Kirkham Street on the west, Seventh Street on the north, Union Street on the east and Fifth Street on the South. The Site also contained a portion of Interstate 880 before it was rerouted to the south; and
- The former brewery site is located directly north of the Site and is bounded by Seventh Avenue on the north, Kirkham Street on the east, the BART ROW on the south, Mandela Parkway on the west and the gasoline service station on the northwest. A residential development is planned for this site.

Other sensitive receptors within 1,000 feet of the Site include a public park

The residential area located north of the Site is upgradient of the Site, and unlikely to have been affected by any releases from the Site. A residential area is located approximately 500 feet downgradient from the Site and can potentially be impacted by upgradient releases at the Site or releases from the adjacent sites.

The Site lies in the East Bay Plan Sub Basin of the Santa Clara Valley Basin. Existing municipal and domestic uses for groundwater include industrial process supply, industrial service supply, and agricultural water supply. Based on files reviewed as part of Phase I report, SCS concluded there is a high likelihood that the groundwater at the Site is not suitable as a drinking water resource due

to the high amount of total dissolved solids (TDS). Two groundwater samples collected by RSI reported TDS results of two groundwater samples they collected at the Site -2 as 2,400 and 1,800 milligrams per liter (mg/L). The TDS Maximum Contaminant Level (MCL) for Municipal Supply pursuant to the Basin Plan is 500 mg/L. SCS understands that the reported TDS levels for groundwater samples collected from the Site are consistent with other TDS concentrations in the Site vicinity and that there is a high likelihood that the TDS are naturally occurring due to the proximity of the Site to the bay (SCS, 2018). No water supply wells are known within one mile of the Site according to the State Water Resources Control Board (SWRCB) GAMA Groundwater Information System website.

The site is devoid of ecological habitat and surface water; therefore, ecological receptors are absent from the site. The nearest surface water body located approximately 3,300 feet south of the Site is the Oakland Inner Harbor which is connected to the San Francisco Bay.

Potential transport and release mechanisms and receptors include volatilization of VOCs in groundwater or direct migration of soil vapor to indoor air. This is not seen as a potential release mechanism due to the low VOC concentrations in groundwater and the proposed redevelopment of the Site to include a vapor barrier and hardscaping of the open areas. Shallow groundwater at the Site is not used as a drinking water source. Contamination observed at the Site has been restricted to the shallow non-potable groundwater zone. Therefore, potential direct contact exposure to VOCs in groundwater, such as tap water ingestion, dermal contact with tap water, and inhalation of VOCs released from tap water are not expected to occur for onsite commercial workers and offsite commercial workers and residents. Redevelopment of the Site will expose construction workers to constituents in soil via direct contact exposure pathways i.e., ingestion, inhalation or dermal contact. All chemicals documented to be present in onsite soils are below the residential ESLs and safe for construction workers at the site.

11.0 CONCLUSIONS AND RECOMMENDATIONS

The current investigations were intended to evaluate subsurface conditions to determine if historic and current operations have impacted the soil, soil vapor and groundwater conditions at the Site. Citadel collected 55 soil samples, seven soil vapor samples and 10 groundwater samples from 32 borings across the Site. The December 2021 soil samples were analyzed for Title 22 metals, TPH, VOCs, PAHs and PCBs. The February 2021 soil samples were analyzed for PCBs. The soil vapor samples were analyzed for TPHg and VOCs. The groundwater samples were analyzed for TPH and VOCs.

The results from the soil, soil vapor and groundwater sampling area as follows:

- Title 22 metals in soil were all below their respective residential ESLs with the exception of arsenic which was within the normal San Francisco Bay background concentrations.
- Acetone, 2-butanone and DIPE were the only VOCs reported in the soil sample laboratory analysis. All results were below the respective residential ESLs for acetone and 2-butanone and below the residential RSL for DIPE.
- TPH reported as TPHd and TPHo were reported in multiple soil samples. All reported results were well below the residential ESLs for TPHd and TPHo.
- PAHs were reported in multiple soil samples. All PAH results are below their respective residential ESLs or residential HHRA Note 3 screening levels.
- The PCB Aroclor 1016 was reported in two soil samples in the December 2021 investigation. Additional sampling conducted to define the horizontal limits of the PCB impacts was

conducted in the February 2022 investigation and all PCB results were below their respective MDLs All PCB results are below their respective residential ESLs.

- TPHg, benzene, ethylbenzene, PCE and vinyl chloride are reported in one or more soil vapor samples at concentrations above their respective residential ESLs.
- Bromodichloromethane and chloroform reported in soil vapor are common byproducts of chlorinated drinking water and are not considered contaminants from past activities at the Site.
- Several VOCs were reported in groundwater at the Site. All reported concentrations were below their respective MCL Priority concentrations.

The elevated concentrations of TPHg and BTEX in B24-5V appear to be isolated as the concentrations in the other borings are significantly lower. These concentrations may be related to the former USTs that were removed from the southern edge of the Site or groundwater from the upgradient railroad ROW and gasoline service station.

Three soil vapor samples appeared to have leaks of ambient air during sampling that exceeded the DTSC recommended maximum of five percent. The results from these three samples were within the range of results from the remaining samples and were not excluded from the data set. However the results are likely biased low due to the shallow sample depths and helium infiltration into the sample.

TPHd and TPHo concentrations in groundwater were reported in samples collected from across the entire Site. TPHd concentrations exceed the MCL Priority concentration in all but one sample.

Concentrations of TPHd and TPHo are generally higher on the western end of the Site compared to the eastern end of the Site and could be sourced from the active gasoline service station and former brewery that are both located upgradient and directly north of the Site.

Insignificant concentrations of VOCs were reported in groundwater, indicating that the OCE, TCE and vinyl chloride reported in the December soil vapor results are limited to a small area in the southwest portion of the Site. No source for these contaminants has been located. Given that vinyl chloride is present, the source is likely historic in nature.

The results of the current investigations indicate that residual concentrations of contaminants are present in soil, soil vapor and groundwater at the Site. ACDEH previously indicated concurrence that any potential risk from subsurface contamination to construction workers, the adjacent community, and Site users could be mitigated during redevelopment activities through implementation of appropriate Site protective practices such as removal, a vapor barrier and hardscaping of the Site open areas.

Recommendations

Citadel recommends that a soil management plan (SMP) be submitted to the ACDEH for approval. The SMP will provide guidance for the general contractor and grading contractor during soil removal and grading operations. The purpose of the SMP is to indicate best management practices when disturbing soil with residual contaminants and direct actions if potential contaminants are encountered.

Citadel further recommends that any contaminated soil be identified during soil disturbance and removed from the Site using a licensed and qualified waste disposal company.

Finally, Citadel recommends the design and implantation of a vapor barrier across the footprint of the building and that the remainder of the Site be hardscaped.

Based on the results of these investigations and the engineering controls planned for the future development, on behalf of Michaels Development, Citadel has no further recommendations and requests closure of the Site to accept residential occupancy.

12.0 REFERENCES CITED

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13.0 LIMITATIONS

This Phase II Site Investigation was performed in accordance with generally and currently accepted engineering practices and principles. Although the data in this report is indicative of subsurface conditions in areas investigated, no further conclusions regarding the absence or presence of subsurface contamination at the site should be construed or inferred other than those expressly stated in this report. The conclusions made are based on information obtained from field observations, and from relevant Federal, State, regional, and local agencies.

14.0 SIGNATURES

Report Prepared by:

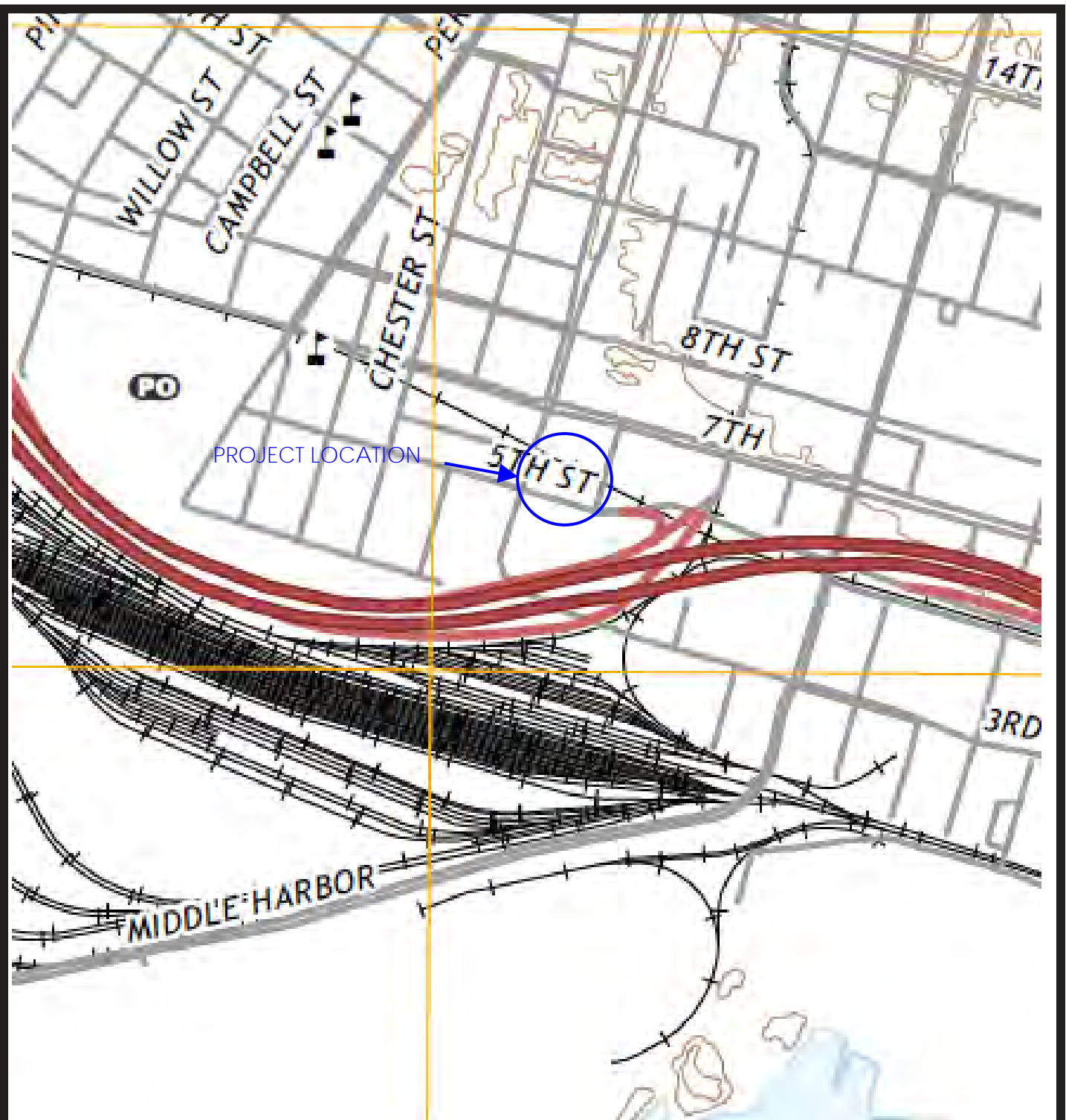
T. Michael Pendergrass, PG
Senior Project Geologist, Engineering and Environmental Sciences

Reviewed by

Mark Drollinger, M. Eng., CSP, CHMM
Principal, Engineering and Environmental Sciences



Figures



Source: USGS, Oakland West Quadrangle, 2018, 7.5 Minute Series

Not to Scale



MICHAELS DEVELOPMENT

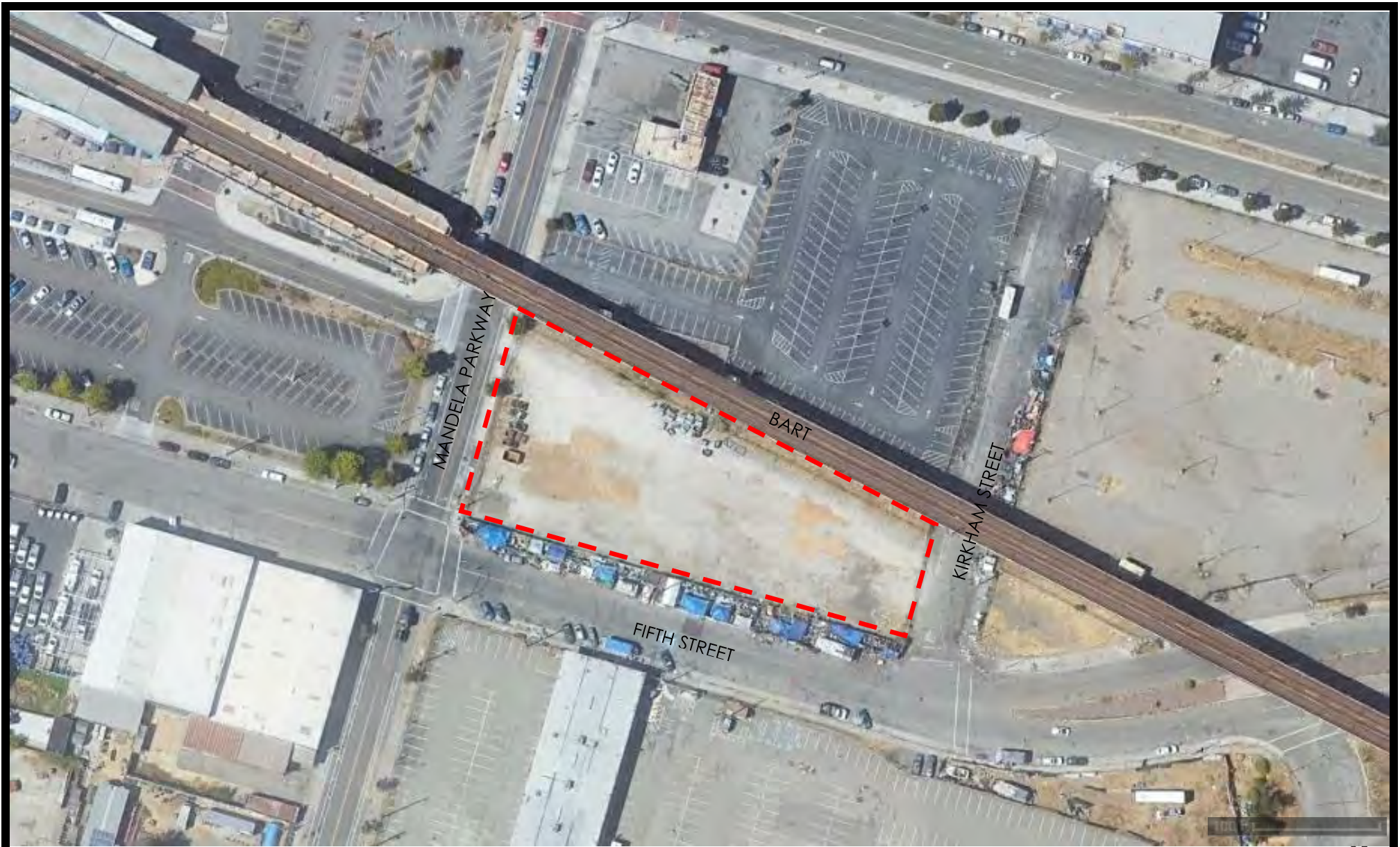
PROPOSED GOLDEN WEST
RESIDENTIAL DEVELOPMENT
1396 FIFTH STREET
OAKLAND, CALIFORNIA

Figure 1

PROJECT NO.: 0849.1004.0

DATE: MARCH 2022

Site Location Map



APPROXIMATE SITE BOUNDARY



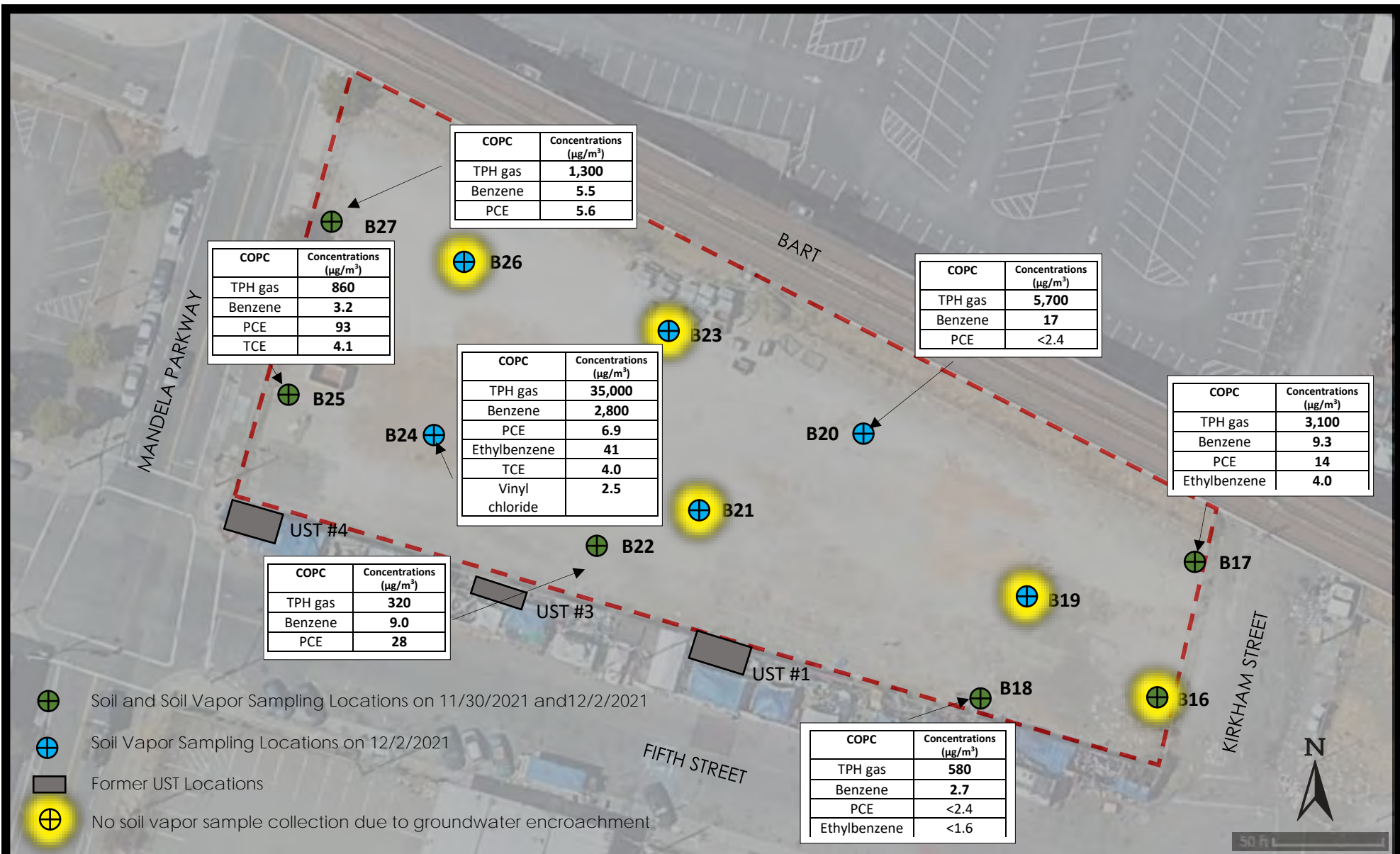
MICHAELS DEVELOPMENT
PROPOSED GOLDEN WEST
RESIDENTIAL DEVELOPMENT
1396 FIFTH STREET
OAKLAND, CALIFORNIA

Figure 2

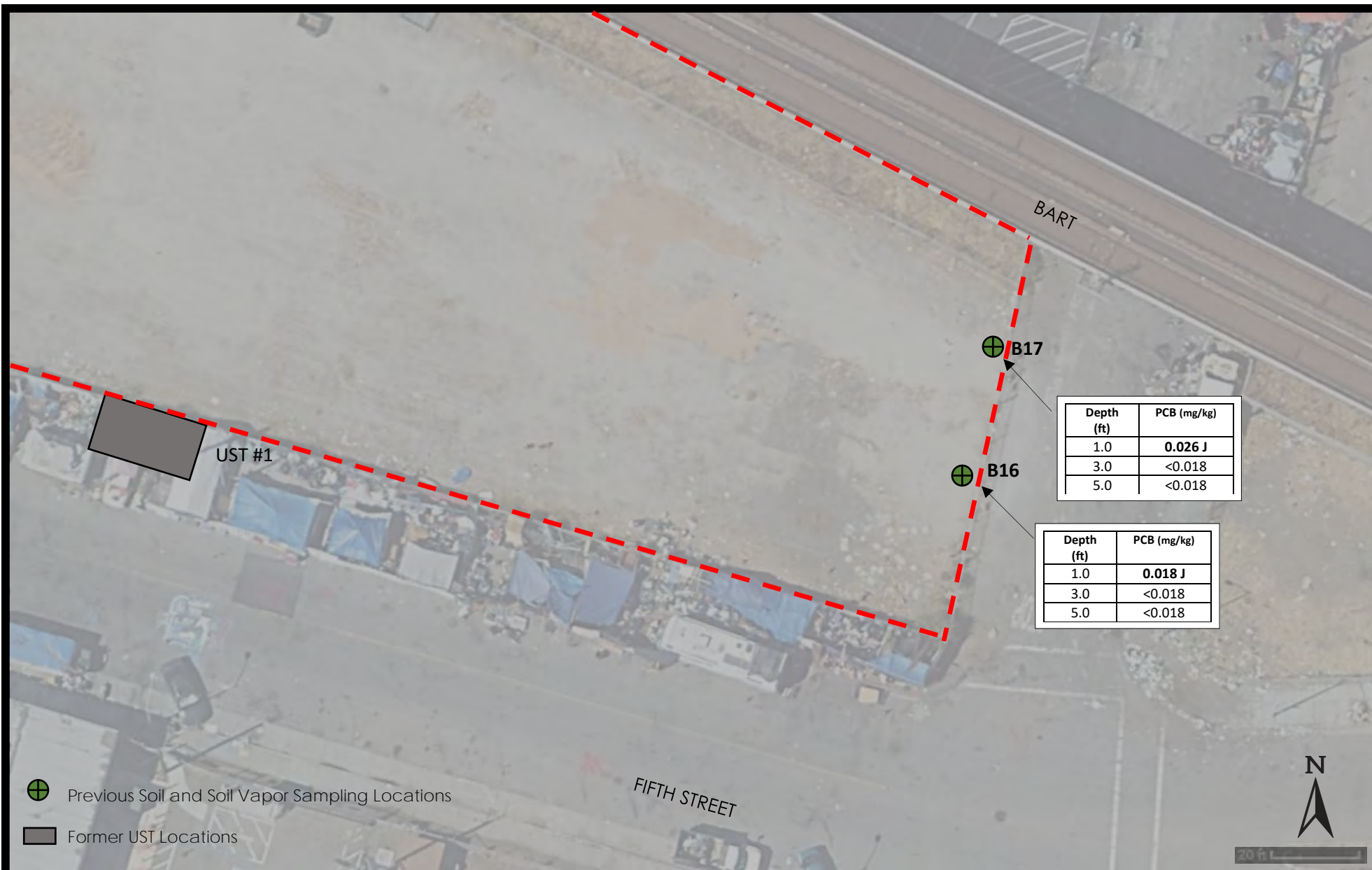
PROJECT NO: 0849.1004.0

DATE: MARCH 2022

Site Map



TPH = Total Petroleum Hydrocarbons; VOC = volatile organic compounds; PCE = Perchloroethylene; TCE = Trichloro-ethene; COPC = contaminant of potential concern; µg/m³ = micrograms per cubic meter



J = Analyte detected above the laboratory Method Detection Limit but below the Reporting Limit; PCB = Polychlorinated biphenyl; mg/kg = milligram per kilogram



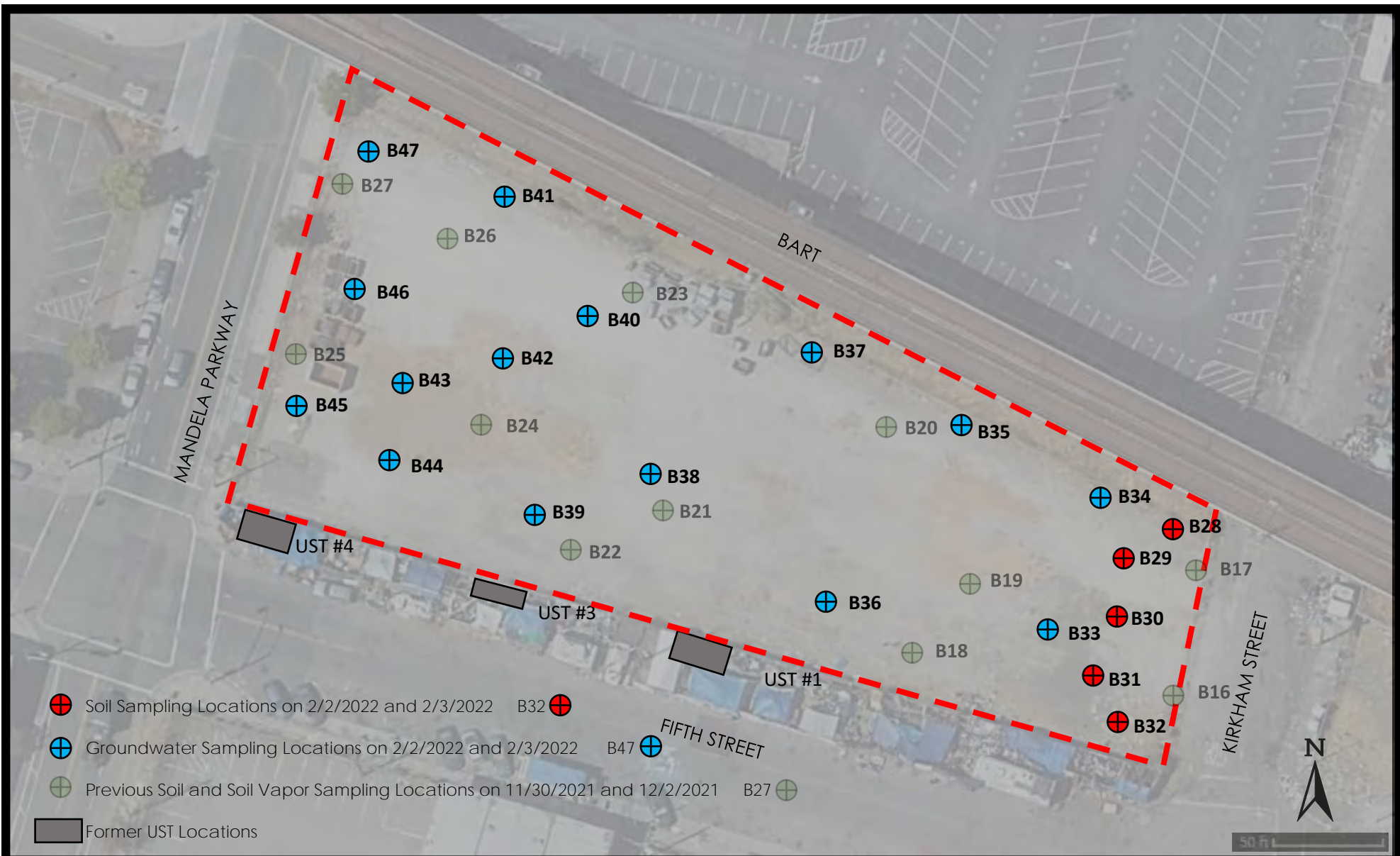
MICHAELS DEVELOPMENT
 PROPOSED GOLDEN WEST
 RESIDENTIAL DEVELOPMENT
 1396 FIFTH STREET
 OAKLAND, CALIFORNIA

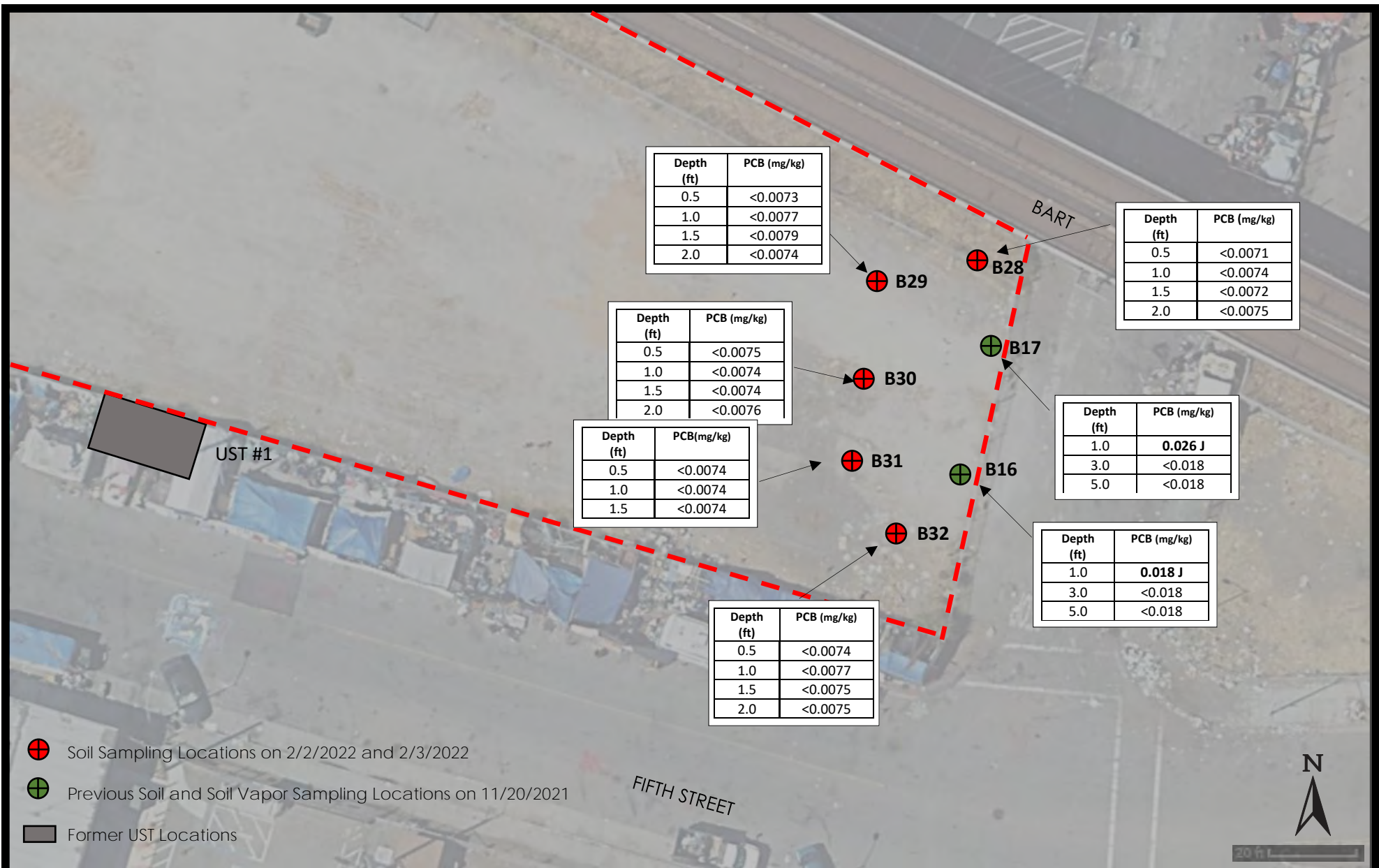
Figure 4

PROJECT NO: 0849.1004.0

DATE: MARCH 2022

December 2021 Aroclor 1016 (PCB)
 Concentrations





J = Analyte detected above the laboratory Method Detection Limit but below the Reporting Limit; PCB = Polychlorinated biphenyl; mg/kg = milligram per kilogram



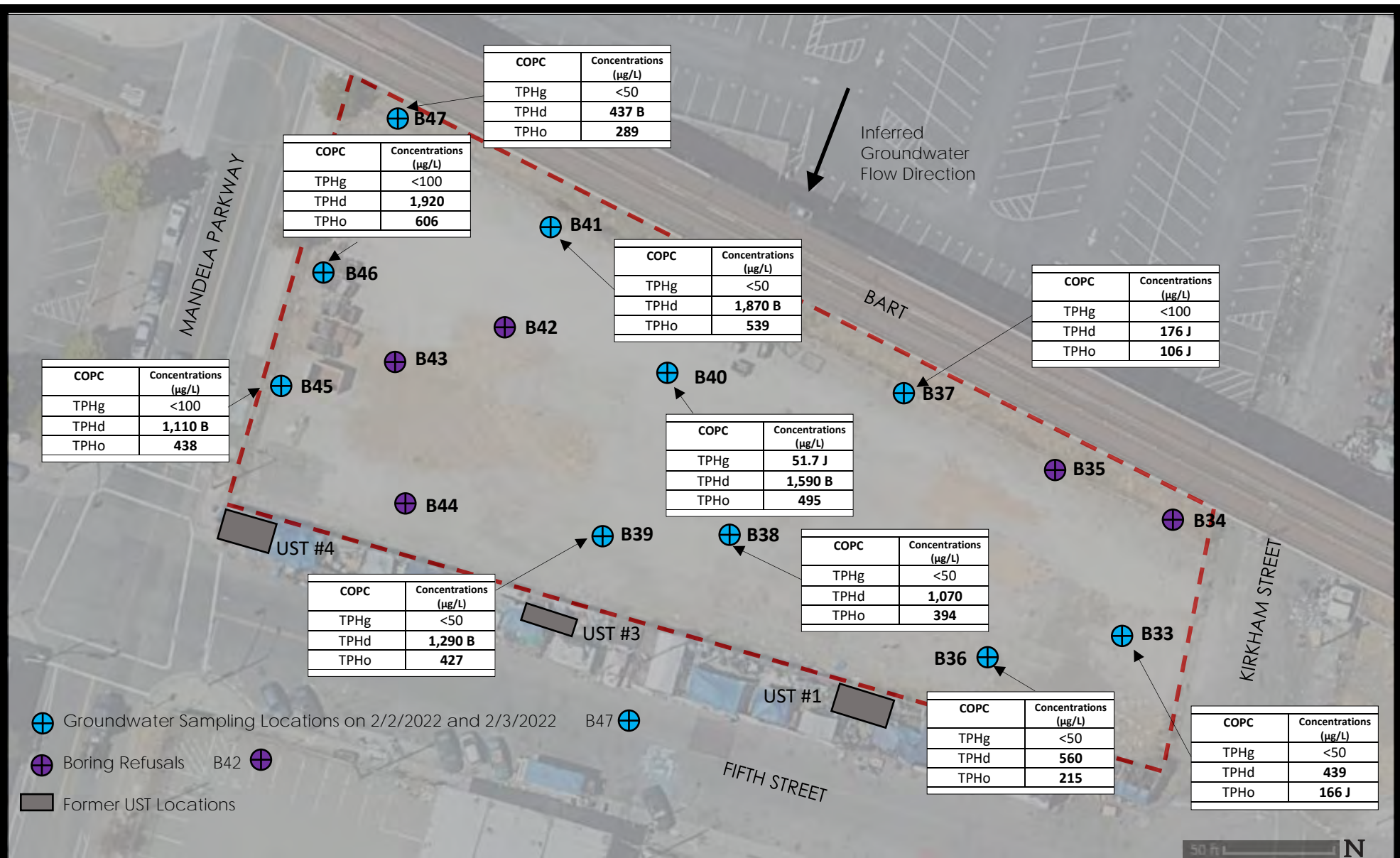
MICHAELS DEVELOPMENT
 PROPOSED GOLDEN WEST
 RESIDENTIAL DEVELOPMENT
 1396 FIFTH STREET
 OAKLAND, CALIFORNIA

Figure 6

PROJECT NO: 0849.1004.0

DATE: MARCH 2022

February 2022 Aroclor 1016 (PCB) Concentrations
 in Soil



J = Analyte detected above the laboratory Method Detection Limit but below the Reporting Limit; B = Contamination found in associated Method Blank; TPH = Total petroleum hydrocarbons



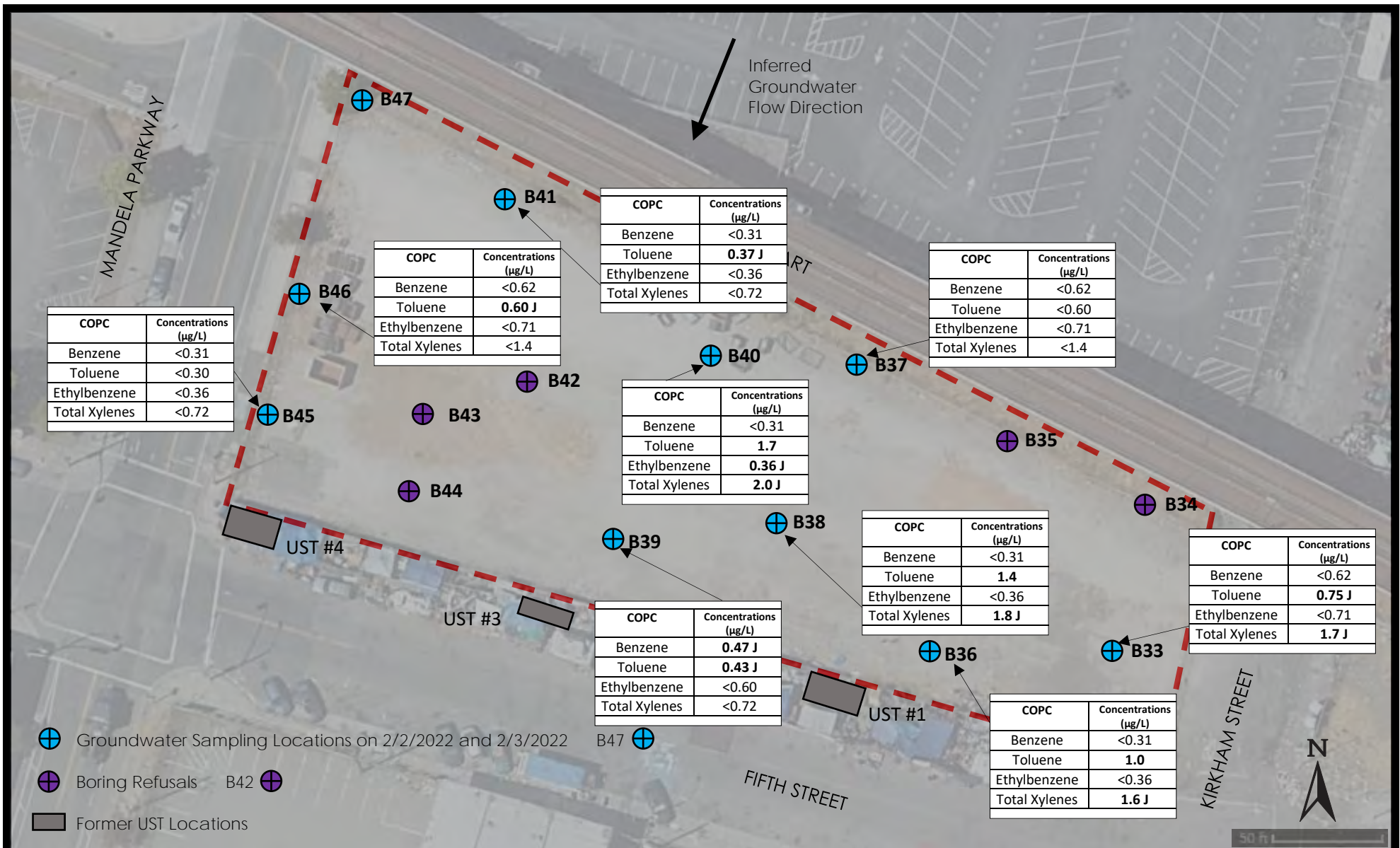
MICHAELS DEVELOPMENT
 PROPOSED GOLDEN WEST
 RESIDENTIAL DEVELOPMENT
 1396 FIFTH STREET
 OAKLAND, CALIFORNIA

Figure 7

PROJECT NO: 0849.1004.0

DATE: MARCH 2022

TPH Concentrations in Groundwater



J = Analyte detected above the laboratory Method Detection Limit but below the Reporting Limit; µg/L = microgram per liter;
 BTEX = Benzene, Toluene, Ethylbenzene, and total xylenes

Tables

Table 1
 Title 22 Metals in Soil
 1396 Fifth Street
 Oakland, California

Sample ID	Depth (feet bgs)	Date Sampled	Title 22 Metals EPA Method 6010B/7471A																Comments	
			Antimony	Arsenic*	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium		Zinc
			milligrams per kilogram (mg/kg)																	
B16-1	1	11/30/2021	<1.5	4.5	190	0.27 J	<0.069	41	8.0	27	20	0.14 J	0.67 J	46	<0.37	<0.15	0.69 J	59	58	
B16-3	3	11/30/2021	<1.3	2.3	67	0.15 J	<0.063	32	5.3	8.3	6.9	<0.047	<0.49	27	<0.33	<0.13	<0.48	24	26	
B16-5	5	11/30/2021	<1.7	2.4	57	0.22 J	<0.082	40	5.5	7.9	3.0	<0.041	<0.64	37	<0.43	<0.17	0.76 J	33	24	
B17-1	1	11/30/2021	<1.7	4.6	210	0.25 J	<0.078	42	7.8	24	17	0.13 J	<0.61	48	<0.42	<0.17	0.76 J	65	53	
B17-3	3	11/30/2021	<1.6	4.7	200	0.26 J	<0.077	45	8.6	23	19	0.33	<0.61	56	<0.41	<0.16	0.62 J	56	57	
B17-5	5	11/30/2021	<1.6	3.8	170	0.30 J	0.077 J	36	5.8	18	14	0.062 J	1.0	40	<0.39	<0.16	0.80 J	46	45	
B18-1	1	11/30/2021	<1.6	4.5	170	0.27 J	0.095 J	38	6.2	22	19	0.10 J	0.68 J	42	<0.40	<0.16	0.80 J	47	47	
B18-3	3	11/30/2021	<1.8	2.0	48	<0.12	<0.082	32	4.0	6.4	2.2	<0.039	<0.65	23	<0.44	<0.18	<0.64	22	16	
B18-5	5	11/30/2021	<1.7	3.0	56	0.36 J	<0.078	45	6.9	8.0	3.4	<0.046	<0.61	36	<0.42	<0.17	<0.60	38	19	
B22-1	1	11/30/2021	<1.7	4.4	210	0.29 J	<0.078	46	7.5	23	15	<0.045	0.87 J	57	<0.42	<0.17	<0.60	62	54	
B22-3	3	11/30/2021	<1.5	3.5	170	0.25 J	0.075 J	39	5.8	18	11	<0.043	0.79 J	50	<0.36	<0.15	<0.53	54	42	
B22-3D	3	11/30/2021	<1.4	3.6	150	0.26 J	<0.066	32	5.5	17	11	<0.039	0.74 J	42	<0.35	<0.14	0.78 J	49	40	Duplicate
B22-5	5	11/30/2021	<1.3	6.0	150	0.22 J	0.19 J	39	6.6	21	20	0.17	0.63 J	37	<0.33	<0.13	0.52 J	42	440	
B25-1	1	11/30/2021	<1.5	4.3	200	0.28 J	<0.072	38	7.2	22	14	0.058 J	0.60 J	51	<0.38	<0.15	<0.56	61	51	
B25-3	3	11/30/2021	<1.4	3.5	190	0.26 J	<0.067	41	6.9	26	15	0.083 J	0.76 J	47	<0.36	<0.14	<0.52	59	49	
B25-5	5	11/30/2021	<1.4	2.4	120	0.26 J	<0.066	32	6.8	17	18	5.5	<0.52	28	<0.35	<0.14	0.55 J	46	37	
B27-1	1	11/30/2021	1.7 J	2.2	110	0.26 J	<0.068	29	12	23	10	1.1	<0.53	32	0.66 J	<0.14	<0.52	77	53	
B27-1D	1	11/30/2021	1.5 J	1.9	94	0.21 J	<0.069	40	13	28	12	1.2	<0.55	29	<0.37	<0.15	<0.54	85	49	Duplicate
B27-3	3	11/30/2021	2.0 J	2.0	110	0.28 J	<0.073	37	15	29	10	1.3	<0.57	39	<0.39	<0.16	<0.56	84	54	
B27-5	5	11/30/2021	2.1 J	1.1	89	0.35 J	<0.077	30	20	36	10	1.1	<0.60	43	0.73 J	<0.16	<0.59	130	66	
ESL - Residential Soil			11	0.067	15,000	16	78	--	23	3,100	80	13	390	820	390	390	0.78	390	23,000	
ESL - Construction Worker			50	0.98	3,000	27	51	--	28	14,000	160	44	1,800	86	1,700	18,000	3.5	470	110,000	

Notes:

bgs = below ground surface

-- = No regulatory criterion

J = Analyte detected above the laboratory Method Detection Limit but below the Reporting Limit.

< = Analyte not detected at or above the indicated laboratory method detection limit (MDL) for EPA Method 6010B/7471A.

ESL = Environmental Screening Levels (SFBRWQCB, 2019)

Bold = Analyte detected above the MDL

*Arsenic concentrations fall within the mean of 4.61 mg/kg and upper estimate of 11 mg/kg for regional background arsenic concentrations in the San Francisco Bay area (Duverge, 2011)

Duverge, Dylan Jacques, 2011. Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region, Master's Thesis, San Francisco State University.

Table 2
Total Petroleum Hydrocarbons (TPH) and Volatile Organic Compounds (VOCs) in Soil
1396 Fifth Street
Oakland, California

Sample ID	Depth (feet bgs)	Date Sampled	Total Petroleum Hydrocarbons			Volatile Organic Compounds EPA Method 8260B										Comments
			TPH Gasoline EPA 8015B	DRO C10-C28 EPA 8015M	ORP C28-C44 EPA 8015M	Acetone	Benzene	Toluene	Ethyl-benzene	o-Xylene	m,p-Xylene	2-Butanone	Diisopropyl Ether (DIPE)	Tetrachloro- ethene (PCE)	Trichloro- ethene (TCE)	
			milligrams per kilogram (mg/kg)													
B16-1	1	11/30/2021	<0.24	36	110	<0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	<0.0003	<0.0006	<0.0005	
B16-3	3	11/30/2021	<0.24	3.0 J	5.6 BJ	<0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	<0.0003	<0.0006	<0.0005	
B16-5	5	11/30/2021	<0.24	<2.4	4.5 BJ	<0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	<0.0003	<0.0006	<0.0005	
B17-1	1	11/30/2021	<0.24	26	77	<0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	<0.0003	<0.0006	<0.0005	
B17-3	3	11/30/2021	<0.24	32	47	<0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	<0.0003	<0.0006	<0.0005	
B17-5	5	11/30/2021	<0.24	2.7 J	5.4 BJ	<0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	<0.0003	<0.0006	<0.0005	
B18-1	1	11/30/2021	<0.24	17	21 B	<0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	<0.0003	<0.0006	<0.0005	
B18-3	3	11/30/2021	<0.24	<2.4	4.7 BJ	<0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	<0.0003	<0.0006	<0.0005	
B18-5	5	11/30/2021	<0.24	<2.4	4.6 BJ	<0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	<0.0003	<0.0006	<0.0005	
B22-1	1	11/30/2021	<0.24	15	21 B	<0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	<0.0003	<0.0006	<0.0005	
B22-3	3	11/30/2021	<0.24	11	17 BJ	0.026 J	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	<0.0003	<0.0006	<0.0005	
B22-3D	3	11/30/2021	<0.24	9.8 J	16 BJ	0.026 J	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	<0.0003	<0.0006	<0.0005	Duplicate
B22-5	5	11/30/2021	<0.24	6.9 J	11 BJ	<0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	0.0034 J	<0.0003	<0.0006	<0.0005	
B25-1	1	11/30/2021	<0.24	15	19 BJ	<0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	<0.0003	<0.0006	<0.0005	
B25-3	3	11/30/2021	<0.24	9.9 J	14 BJ	<0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	<0.0003	<0.0006	<0.0005	
B25-5	5	11/30/2021	<0.24	3.1 J	5.7 BJ	<0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	0.0003 J	<0.0006	<0.0005	
B27-1	1	11/30/2021	<0.24	15	85	<0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	<0.0003	<0.0006	<0.0005	
B27-1D	1	11/30/2021	<0.24	5.7 J	9.8 BJ	<0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	<0.0003	<0.0006	<0.0005	Duplicate
B27-3	3	11/30/2021	<0.24	7.2 J	16 BJ	<0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	<0.0003	<0.0006	<0.0005	
B27-5	5	11/30/2021	<0.24	3.3 J	6.2 BJ	<0.025	<0.0002	<0.0005	<0.0004	<0.0003	<0.0008	<0.0032	<0.0003	<0.0006	<0.0005	
ESL - Residential Soil			430	260	12,000	61,000	0.33	1,100	5.9	580	580	27,000	2,200*	0.59	0.95	
ESL - Construction Worker			1,800	1,100	54,000	270,000	33	4,700	540	2,400	2,400	120,000	--	33	18	

Notes:

- bgs = below ground surface
- = No regulatory criterion
- < = Analyte not detected at or above the indicated laboratory method detection limit (MDL) for EPA Method 8015B or 8260B
- J = Analyte detected above the laboratory Method Detection Limit but below the Reporting Limit.
- B = Contamination found in associated Method Blank
- ESL = Environmental Screening Levels (SFBRWQCB, 2019)
- * - EPA Regional Screening Levels (RSLs) (2020)
- DRO = Diesel Range Organics
- ORO = Oil Range Organics
- Bold = Analyte detected above the MDL

Table 3
 Polycyclic Aromatic Hydrocarbons (PAHs) in Soil
 1396 Fifth Street
 Oakland, California

Sample ID	Depth (feet bgs)	Date Sampled	Polycyclic Aromatic Hydrocarbons EPA Method 8270C-SIM																	Comments	
			1-Methyl-naphthalene	2-Methyl-naphthalene	Acenaph-thene	Acenaphthylene	Anthracene	Benzo[a]-anthracene	Benzo[a]-pyrene	Benzo[b]-fluoranthene	Benzo-[g,h,i]-perylene	Benzo[k]-fluoranthene	Chrysene	Dibenz[a,h]-anthracene	Fluoranthene	Fluorene	Indeno-[1,2,3-cd]-pyrene	Naphthalene	Phenanthrene		Pyrene
milligrams per kilogram (mg/kg)																					
B16-1	1	11/30/2021	<0.010	<0.016	<0.013	<0.036	<0.013	<0.021	0.024 J	<0.027	<0.018	0.020 J	0.030 J	<0.022	0.045 J	<0.011	<0.021	<0.016	0.021 J	0.047 J	
B16-3	3	11/30/2021	<0.0021	<0.0032	<0.0025	<0.0071	<0.0025	<0.0043	<0.0035	<0.0054	<0.0037	<0.0025	<0.0036	<0.0044	0.0025 J	<0.0021	<0.0041	<0.0032	<0.0032	0.003 J	
B16-5	5	11/30/2021	<0.0021	<0.0032	<0.0025	<0.0071	<0.0025	<0.0043	<0.0035	<0.0054	<0.0037	<0.0025	<0.0036	<0.0044	<0.0025	<0.0021	<0.0041	<0.0032	<0.0032	<0.0021	
B17-1	1	11/30/2021	<0.0082	<0.013	<0.010	<0.029	0.011 J	0.028 J	0.031 J	0.028 J	0.022 J	0.028 J	0.040 J	<0.018	0.071	<0.0086	0.019 J	<0.013	0.053	0.074	
B17-3	3	11/30/2021	<0.0082	<0.013	<0.010	<0.029	<0.010	0.030 J	0.034 J	0.031 J	0.024 J	0.030 J	0.043	<0.018	0.057	<0.0086	0.019 J	<0.013	0.025 J	0.065	
B17-5	5	11/30/2021	<0.0082	<0.013	<0.010	<0.029	<0.010	<0.017	<0.014	<0.021	<0.015	<0.010	<0.015	<0.018	0.019 J	<0.0086	<0.016	0.040 J	0.016 J	0.022 J	
B18-1	1	11/30/2021	<0.0082	<0.013	<0.010	<0.029	<0.010	0.020 J	0.024 J	<0.021	0.016 J	0.019 J	0.029 J	<0.018	0.054	<0.0086	<0.016	<0.013	0.014 J	0.056	
B18-3	3	11/30/2021	<0.0041	<0.0063	<0.0050	<0.014	<0.0050	<0.0085	<0.0070	<0.011	<0.0073	<0.0050	<0.0072	<0.087	<0.0049	<0.0042	<0.0081	<0.0063	<0.0063	<0.0042	
B18-5	5	11/30/2021	<0.0041	<0.0063	<0.0050	<0.014	<0.0050	<0.0085	<0.0070	<0.011	<0.0073	<0.0050	<0.0072	<0.087	<0.0049	<0.0042	<0.0081	<0.0063	<0.0063	<0.0042	
B22-1	1	11/30/2021	<0.0010	<0.016	<0.013	<0.036	<0.013	<0.021	<0.018	<0.027	<0.018	0.014 J	0.025 J	<0.022	0.042 J	<0.011	<0.021	<0.016	0.021 J	0.044 J	
B22-3	3	11/30/2021	<0.0082	<0.013	<0.010	<0.029	<0.010	0.018 J	0.019 J	<0.021	<0.015	0.018 J	0.026 J	<0.018	0.046	<0.0086	<0.016	<0.013	0.027 J	0.050	
B22-3D	3	11/30/2021	<0.041	<0.063	<0.050	<0.14	<0.050	<0.085	<0.070	<0.11	<0.073	<0.050	<0.072	<0.087	<0.049	<0.042	<0.081	<0.063	<0.063	0.050 J	Duplicate
B22-5	5	11/30/2021	<0.0040	<0.0062	<0.0050	<0.014	<0.0050	<0.0084	<0.0069	<0.011	<0.0072	<0.0050	<0.0071	<0.0086	0.010 J	<0.0042	<0.0081	<0.0062	0.012 J	0.011 J	
B25-1	1	11/30/2021	<0.021	<0.032	<0.025	<0.071	<0.025	<0.043	<0.035	<0.054	<0.037	<0.025	<0.036	<0.044	0.046 J	<0.021	<0.041	<0.032	<0.032	0.047 J	
B25-3	3	11/30/2021	<0.041	<0.064	<0.051	<0.14	<0.051	<0.085	<0.070	<0.11	<0.073	<0.051	<0.073	<0.088	0.063 J	<0.043	<0.082	<0.064	<0.063	0.062 J	
B25-5	5	11/30/2021	0.012 J	0.021 J	<0.010	<0.029	<0.010	<0.017	<0.014	<0.021	<0.015	<0.010	<0.015	<0.018	<0.0098	<0.0086	<0.016	0.12	<0.013	<0.0084	
B27-1	1	11/30/2021	<0.0021	<0.0032	<0.0025	<0.0072	<0.0026	0.0082 J	0.015	0.011	0.012	0.011	0.012	<0.0044	0.017	<0.0022	0.012	0.0042 J	0.0095 J	0.018	
B27-1D	1	11/30/2021	<0.010	<0.016	<0.013	<0.036	<0.013	<0.021	<0.018	<0.027	<0.018	<0.013	<0.018	<0.022	0.013 J	<0.011	<0.021	<0.016	<0.016	0.014 J	Duplicate
B27-3	3	11/30/2021	<0.0020	<0.0032	<0.0025	<0.0071	0.0029 J	0.0060 J	0.0084 J	0.0059 J	0.0058 J	0.0075 J	0.0089 J	<0.0044	0.015	<0.0021	0.0051 J	0.0045 J	0.011	0.016	
B27-5	5	11/30/2021	<0.0082	<0.013	<0.010	<0.029	<0.010	<0.017	<0.014	<0.021	<0.015	<0.010	<0.015	<0.018	<0.0098	<0.0086	<0.016	<0.013	0.015 J	0.011 J	
ESL - Residential Soil			9.9*	240	3,600	--	18,000	1.1	0.11	1.1	--	11	110	0.11	2,400	2,400	1.1	4	--	1,800	
ESL - Construction Worker			--	670	10,000	--	50,000	110	10	110	--	910	9,100	11	6,700	6,700	110	400	--	5,000	

Notes:
 bgs = below ground surface
 Bold = Analyte detected above the Method Detection Limit.
 J = Analyte detected above the laboratory Method Detection Limit but below the Reporting Limit.
 < = Analyte not detected at or above given Method Detection Limit for EPA Method 8270C
 - = Not analyzed.
 -- = No regulatory criterion
 ESL = Environmental Screening Levels (SFBRWQCB, 2019)
 * - DTSC Human Health Risk Assessment Note 3
 SIM = Selected Ion Monitoring

Table 4
 Polychlorinated Biphenyls (PCBs) in Soil
 1396 Fifth Street
 Oakland, California

Sample ID	Depth (feet bgs)	Date Sampled	Polychlorinated Biphenyls EPA Method 8082									Comments
			Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	
			milligrams per kilogram (mg/kg)									
B16-1	1	11/30/2021	0.018	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	
B16-3	3	11/30/2021	<0.018	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	
B16-5	5	11/30/2021	<18	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	
B17-1	1	11/30/2021	0.026	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	
B17-3	3	11/30/2021	<0.018	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	
B17-5	5	11/30/2021	<0.018	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	
B18-1	1	11/30/2021	<0.018	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	
B18-3	3	11/30/2021	<0.018	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	
B18-5	5	11/30/2021	<0.018	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	
B22-1	1	11/30/2021	<0.018	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	
B22-3	3	11/30/2021	<0.018	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	
B22-3D	3	11/30/2021	<0.018	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	Duplicate
B22-5	5	11/30/2021	<0.018	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	
B25-1	1	11/30/2021	<0.018	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	
B25-3	3	11/30/2021	<0.018	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	
B25-5	5	11/30/2021	<0.018	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	
B27-1	1	11/30/2021	<0.018	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	
B27-1D	1	11/30/2021	<0.018	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	Duplicate
B27-3	3	11/30/2021	<0.018	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	
B27-5	5	11/30/2021	<0.018	<0.014	<0.016	<0.014	<0.0043	<0.0061	<0.025	<0.016	<0.013	
ESL - Residential Soil			0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	
ESL - Construction Worker Exposure			5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	

Notes:

bgs = below ground surface

Bold = Analyte detected above the Method Detection Limit.

< = Analyte not detected at or above given Method Detection Limit

ESL = Environmental Screening Levels (SFBRWQCB, 2019).

Table 5
 Total Petroleum Hydrocarbons as Gasoline (TPHg) and Volatile Organic Compounds (VOCs) in Soil Vapor
 1396 Fifth Street
 Oakland, California

Sample ID	Depth (feet bgs)	Date Sampled	Total Petroleum Hydrocarbon as Gasoline EPA Method TO-3	Volatile Organic Compounds EPA Method TO-15											Fixed Gases ASTM D1946			Comments	
			Gasoline C6-C12	Benzene	Toluene	Ethyl-benzene	m,p-Xylenes	o-Xylene	Acetone	Bromodi-chloro-methane	Chloroform	cis-1,2-Dichloro-ethene	Tetrachloro-ethene (PCE)	Trichloro-ethene (TCE)	Vinyl Chloride	Helium	Oxygen/Ar con		Nitrogen
			micrograms per cubic meter (µg/m3)														parts per million by volume (ppmv)		
B17-3.5V	3.5	12/2/2021	3,100	9.3	9.1	4.0	8.1	3.4	69	<2.4	21	2.2	14	<1.9	<0.92	5,100	220,000	770,000	
B17-3.5VD	3.5	12/2/2021	1,800	9.2	9.4	2.2	6.9	3.1	87	4.4	22	2.0	13	<1.9	<0.92	4,300	220,000	770,000	Duplicate
B18-1.5V	1.5	12/2/2021	580	2.7	2.6	<1.6	<3.1	<1.6	28	5.5	110	<1.4	<2.4	<1.9	<0.92	6,100	220,000	770,000	
B20-5V	5	12/2/2021	5,700	17	10	4.5	16	6.1	72	<2.4	4.1	<1.4	<2.4	<1.9	<0.92	120,000	160,000	720,000	
B22-1.5V	1.5	12/2/2021	320	9.0	7.6	<1.7	5.0	2.5	140	6.0	51	2.7	28	<2.1	<1.0	51,000	210,000	740,000	
B24-5V	5	12/2/2021	35,000	2,800	740	41	110	53	9,400	<4.0	6.3	<2.4	6.9	4.0	2.5	<3,000	120,000	880,000	
B25-3V	3	12/2/2021	860	3.2	3.7	<1.7	4.2	2.5	48	<2.7	14	11	93	4.1	<1.0	48,000	190,000	760,000	
B27-2.5V	2.5	12/2/2021	1,300	5.5	5.9	<1.7	4.4	2.0	33	<2.7	16	<1.6	5.6	<2.1	<1.0	<2,000	190,000	810,000	
B27-2.5VD	2.5	12/2/2021	1,500	5.9	7.1	1.6	5.4	2.5	44	<2.4	19	<1.4	8.8	<1.9	<0.92	2,000	190,000	810,000	Duplicate
ESL - Residential Soil Vapor			20,000	3.2	10,000	37	3,500	3,500	1,100,000	2.5	4.1	280	15	16	0.32	--	--	--	

Notes:

bgs = below ground surface

-- = No regulatory criterion

< = Analyte not detected at or above the indicated laboratory reporting limit (RL) for EPA Method TO-3, TO-15 and ASTM D1946

ESL = Environmental Screening Levels (SFBRWQCB, 2019)

Bold = Analyte detected above the RL

Exceeds Residential ESLs

Table 6
Total Petroleum Hydrocarbons (TPH) and Volatile Organic Compounds (VOCs) in Groundwater
 1396 Fifth Street
 Oakland, California

Sample ID	Date Sampled	Total Petroleum Hydrocarbons (TPH)			Volatile Organic Compounds (VOCs) (EPA 8260B)								Comments
		TPHg EPA 8015C	TPHd C10-C28 EPA 8015C	TPHo C28-C44 EPA 8015C	Benzene	Toluene	Ethylbenzene	Total Xylenes	Acetone	2-Butanone	Naphthalene	Tetrachloro- ethene (PCE)	
micrograms per liter (µg/L)													
B33-GW	2/3/2022	<50	439	166 J	<0.62	0.75 J	<0.71	1.7 J	<20	<4.0	<2.0	<0.43	
B33-GW-D	2/3/2022	<50	607	224	<0.31	0.53 J	<0.36	1.5 J	10.5 J	<2.0	1.1 J	<0.22	Duplicate
B36-GW	2/3/2022	<50	560	215	<0.31	1.0	<0.36	1.6 J	46.8	<2.0	<1.0	<0.22	
B37-GW	2/2/2022	<100	176 J	106 J	<0.62	<0.60	<0.71	<1.4	55.9	12.5	<2.0	<0.43	
B38-GW	2/2/2022	<50	1,070	394	<0.31	1.4	<0.36	1.8 J	15.9 J	<2.0	<1.0	<0.22	
B39-GW	2/2/2022	<50	1,290 B	427	0.47 J	0.43 J	<0.36	<0.72	117	9.4	<1.0	<0.22	
B40-GW	2/2/2022	51.7 J	1,590 B	495	<0.31	1.7	0.36 J	2.0 J	72.5	5.1	<1.0	<0.22	
B40-GW-D	2/2/2022	<50	1,830 B	586	0.42 J	2.6	0.59 J	3.1	76.7	5.7	<1.0	<0.22	Duplicate
B41-GW	2/2/2022	<50	1,870 B	539	<0.31	0.37 J	<0.36	<0.72	<10	<2.0	<1.0	<0.22	
B45-GW	2/2/2022	<100	1,110 B	438	<0.31	<0.30	<0.36	<0.72	22.8 J	<2.0	<1.0	<0.22	
B46-GW	2/3/2022	<100	1,920	606	<0.62	0.60 J	<0.71	<1.4	<20	<4.0	<2.0	<0.43	
B47-GW	2/2/2022	<50	437 B	289	<0.31	0.43 J	<0.36	<0.72	<10	<2.0	<1.0	<0.22	
Trip Blank	2/2/2022	--	--	--	<0.31	<0.30	<0.36	<0.72	<10	<2.0	<1.0	<0.22	
Trip Blank	2/3/2022	--	--	--	<0.31	<0.30	<0.36	<0.72	<10	<2.0	<1.0	<0.22	
MCL ¹ Priority		760	200	--	1	40	30	20	14,000	5,600	17	--	

Notes:

- 1 - "MCL Priority" lists all available MCL values. If no MCL values are available, the lower of the cancer and noncancer tapwater direct exposure levels is listed.
- = No regulatory criterion
- < = Analyte not detected at or above the indicated laboratory method detection limit (MDL) for EPA Method 8015B or 8260B
- J = Analyte detected above the laboratory Method Detection Limit but below the Reporting Limit.
- B = Contamination found in associated Method Blank
- ESL = Environmental Screening Levels (SFRWQCB, 2019)
- TPHg = Total Petroleum Hydrocarbons as Gasoline
- TPHd = Total Petroleum Hydrocarbons as Diesel
- TPHo = Total Petroleum Hydrocarbons as Oil
- Bold** = Analyte detected above the MDL
- Exceeds the MCL Priority concentration

Appendix A

Alameda County Department of Environmental Health Site Investigation Work Plan



CITADEL EHS

assess • resolve • strengthen

October 6, 2021

Dilan Roe, PE
Chief, Land Water Division
ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway
Alameda, CA 94502

Re: CITADEL Project No. 0849.1003.0
Phase II Subsurface Investigation Work Plan
Proposed Golden West Residential Development
1396 Fifth Street
Oakland, California 94607
Case Number: RO0003500

Dear Ms. Roe:

Citadel EHS (Citadel) is pleased to submit this Work Plan to perform a Phase II Subsurface Investigation at the above referenced location. The scope of Citadel's services is outlined on the following pages.

If you have any questions or require additional information, please telephone me at (818) 246-2707.

Sincerely,
CITADEL EHS

Mark Drollinger, M. Eng., CSP, CHMM
Principal, Engineering and Environmental Sciences

Enclosure



CITADEL EHS

assess • resolve • strengthen

Michaels Development

2020 W. Kettleman Lane

P.O. Box 1570

Lodi, California 95241

Phase II Subsurface Investigation Work Plan

October 6, 2021

Citadel Project Number 0849.1003.0

Proposed Golden West Residential Development

1396 Fifth Street

Oakland, California 94607

www.CitadelEHS.com

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APPENDICES

Appendix A	Map of the 2012 UST Removal and Soil Sample Locations
Appendix B	Health and Safety Plan

1.0 INTRODUCTION

Citadel EHS (Citadel) has prepared this Work Plan on behalf of Michaels Development (Client) to complete a Phase II Subsurface Investigation of the proposed Golden West Residential Development located at 1396 Fifth Street, Oakland, California, (Site). The Site is overseen by the Alameda County Department of Environmental Health (ACDEH) and has been assigned Case ID RO0003500 and GeoTracker Global ID T10000017095.

The Site is identified in the County of Alameda with Assessor's Parcel Number 004-69-004. The Site totals approximately 0.88 acres and is an irregular shaped parcel of land situated along the north side of Fifth Street, between Mandela Parkway to the east, and Kirkham Street to the west. An elevated BART track is situated along the northern boundary of the Site. The Site is currently a dirt covered vacant lot. A Site Location Map is included as Figure 1.

2.0 BACKGROUND

The Site has historically been occupied by various food grade industries including yeast and vinegar production and a brewery from at least 1880 through 2003. Primary demolition of the main manufacturing buildings and outer structures began in 2003 and continued through 2011 with supplemental removals of sewer connections and structural pilings. Environmental concerns identified at the Site have included above ground and underground fuel tanks, the use of various chemicals with several documented releases, and an unauthorized release of mercury to the sewer system with apparent impacts to the subsurface soil, and the Site also had a surficial layer of artificial fill that extended across much of the property. Previous testing indicated the fill had elevated levels of lead in some areas, and detectable but generally low concentrations of mercury. Approximately 8,575 cubic yards of soil was removed as non-hazardous soil and approximately 31 cubic yards of soil was removed as non-RCRA hazardous waste. Following excavation, confirmation soil samples were collected resulting in one soil sample along the eastern side of the Site with a concentration of 93 mg/kg lead which was slightly greater than the guideline concentrations of 80 mg/kg lead.

During preliminary development of the Site, four underground storage tanks (USTs) were discovered in the sidewalk along Fifth Street. In October 2011, each UST was opened and sampled for profiling. In November 2011 soils were excavated from above and along the sides of the UST's in order to expose their tops and walls in preparation for removal. During removal of the overburden at UST No. 4, live utility lines were observed crossing the top of the UST. The Oakland Fire Department (OFD) Inspector allowed UST No. 4 to be closed in-place by filling the UST with concrete slurry. A map of the UST locations and details is included in Appendix A

A fire occurred at the Site in 2012 significantly damaging the Site structure and surrounding properties. The remaining structure from the fire consisted of a concrete podium which was removed in April 2016.

In June 2016, Citadel advanced 15 soil borings at the Site. Citadel collected continuous cores at all locations for geologic characterization of the fill and native material at the Site. The contact between fill and native soil was logged at each boring location. Three soil borings were advanced adjacent to formers USTs 1, 3 and 4 to evaluate soil and groundwater in these areas. In addition, groundwater samples were collected from two borings to evaluate groundwater upgradient of the former USTs.

Citadel collected five groundwater grab samples in the vicinity of the three former USTs and upgradient of the USTs. Soil samples were collected in acetate sleeves and delivered to a state-certified laboratory for analysis.

Soil samples collected from fill material did not exceed the Tier 1 ESL for TPHg, TPHd, TPHo, VOCs, PCBs or metals with the exception of arsenic. The concentrations of arsenic from fill was found to be slightly higher (between 3.6 and 5.7 mg/kg) than underlying native soil (between 2.0 and 3.7 mg/kg). Arsenic concentrations did not exceed the background levels for arsenic.

A majority of soil samples were reported to have detectable concentrations of various PAHs. Tier 1 ESLs for PAHs are driven by human health from direct exposure to contaminated soils. Future development is not anticipated to include direct exposure to subsurface soils and ESLs for exposure to construction workers, leaching to groundwater, gross contamination and odor nuisance are all above maximum concentrations of PAHs observed at the site.

Groundwater was encountered at approximately 11 feet bgs in the borings extended to groundwater. Groundwater samples were analyzed for VOCs and TPH. Maximum concentrations in groundwater were observed in the upgradient sample locations. Groundwater collected from the two upgradient sampling locations near the railroad right-of-way (ROW) exceed the Tier 1 ESLs for TPHg, TPHd, BTEX and TBA. Tier 1 ESLs for TPH and VOCs are driven by human health from direct exposure to shallow ground water. Future development is not anticipated to include direct exposure to groundwater.

The source of petroleum hydrocarbon contamination at the Site is likely to be the railroad ROW that is immediately adjacent to the northern perimeter of the Site, or the former service station located approximately 175 feet north of the Site on the southeast corner of Mandel Parkway and 7th Street. Oil seepage from the railroad ROW on the north side of the Site has been previously noted (Citadel, 2011, 2015).

ACDEH Update

In May 2017, the ACDEH closed Cleanup Program Case No. RO0002896 based on evaluation of risk under the land use scenario as a vacant fenced lot at the time of case closure. The case was closed with the condition that any proposed change in land use be reviewed by ACDEH for re-evaluation of human health risk from subsurface contamination at and in the vicinity of the Site to construction workers and the community during redevelopment activities and the Site users once the redevelopment is complete.

in accordance with the 2017 ACDEH's change in land use condition of case closure, a Service Request Application for a Preliminary Site Review, dated May 18, 2021, was submitted by Oakland Housing Investors L.P (the Clients legal entity for the development).

Based on ACDEH review of the case files, ACDEH indicated concurrence that any potential risk from subsurface contamination to construction workers, the adjacent community, and Site users could be mitigated during redevelopment activities through implementation of appropriate Site protective practices such as removal, a vapor barrier and hardscaping of the Site open areas.

Therefore, ACDEH requested that the Client enter into a Voluntary Remedial Action Agreement with ACDEH to provide oversight of Site investigation activities to fill remaining data gaps to characterize soil and soil vapor at the Site. Information obtained from this investigation would be used to evaluate the current subsurface conditions, develop a Conceptual Site Model and

provide recommendations for any contaminant mitigation measures that are protective of human and environmental health.

Citadel has prepared this Work Plan to address the apparent data gaps from previous investigations and evaluate the current subsurface conditions across the Site.

3.0 GEOLOGY/HYDROGEOLOGY

The City of Oakland has identified three Oakland-specific soil types that can be used for determining site specific target levels. These soil categories are Merritt Sands, sandy silts and clayey silts. Merritt sands are primarily located in flatlands to the west of Lake Merritt and consist of fine-grained silty sand with lenses of sandy clay and clay. Merritt sands typically feature low moisture content and high permeability. Sandy silts are generally found throughout the East Bay and consist of unconsolidated, moderately sorted sand, silt, and clay. These are considered moderate permeability deposits. Clayey silts are found primarily along the bay and estuary and typically contain organic material, peat, and thin lenses of sand. Clayey silts are typically low permeability deposits.

Based on drilling logs developed by Citadel as part of the previous subsurface investigations, shallow sediments across the Site consist of a mixture native and imported soils consisting of silty clay, clayey silt, sandy silt, and silty sand. The fill layer extends from the surface to an average depth of about four to five feet below ground surface (bgs) across most of the Site and is underlain mostly by silty sand deposits that are assumed to represent the Merritt sand unit.

Groundwater was present at approximately four feet bgs in March 2011 and 11 feet bgs in June 2016. Groundwater in the local area reportedly flows to the southwest and is part of the East Bay Sub Basin of the Santa Clara Valley Basin (Number 2-9.04). Existing beneficial uses include municipal, agricultural, and industrial process supply; however, it is probable that the groundwater is not suitable for these uses due to high total dissolved solid (TDS) content (reportedly as high as 2,400 milligram per liter (mg/L)). The TDS levels may be naturally occurring due to the proximity of the Site to the bay.

4.0 PROPOSED WORK PLAN

Citadel understands that the Client proposes to improve the 0.88-acre Site with an eight-story, transit oriented residential development with 222 dwelling units. The Property is proposed to be built property line to property line except for the northern façade where BART mandates a 20-foot setback between the face of the building and the elevated BART tracks. The 20-foot setback will be capped with a hardscape and artificial grass. The development will include ground floor amenity spaces along the length of 5th Street and will provide a linear single loaded garage along the north side of the ground floor abutting the BART tracks. There will be no subterranean levels. The Site is currently vacant, and the neighboring properties are also planned for higher density transit-oriented developments.

Soil vapor samples have not been previously collected at the Site and the ACDEH requested additional assessment for soil vapor at the Site. Utilizing the shallow groundwater results to evaluate potential vapor intrusion concerns, benzene and ethylbenzene were reported above the vapor risk threshold. No other VOC concentrations exceeded the groundwater ESLs for vapor intrusion. The ACDEH also requested additional investigation of native soils exposed along the west, south and east perimeter of the Site that have not been previously sampled.

Based on Citadels findings and conclusions, from the 2016 investigation, the current ESLs, the proposed development and a request from the ACDEH, Citadel is preparing this Site Assessment Work Plan for submittal and approval by the ACDEH to address soil and soil vapor data gaps at the Site.

4.1 Health and Safety Plan

Citadel prepared a site-specific health and safety plan (HASP) identifying existing and potential hazards for workers at the Site during drilling and sample collection activities. A copy of the HASP is included in Appendix B.

4.2 Permitting and Demarcation of Underground Utilities

Citadel will obtain a boring permit from the Alameda County Public Works Agency (ACPWA), Water Resources Section prior to on-site drilling activities. A permit is required for all work pertaining to boreholes at any depth.

Citadel will contact Underground Service Alert (USA) to mark underground utilities prior to advancing soil borings at the Site.

4.3 Soil and Soil Vapor Sampling

Based on previous investigations at the Site, groundwater is anticipated to be approximately 11 feet bgs, with groundwater flow to the south. Due to the shallow nature of the sample locations, groundwater is not expected to be encountered during this investigation.

To evaluate the soil and soil vapor, Citadel will advance 12 borings at the Site at approximate 75-foot centers. Boring locations were chosen to obtain representative soil vapor samples from the Site and obtain soil samples from areas of native soils along the west, south and east perimeter of the Site that were not previously sampled. Refer to Figure 2 for a Site Map showing approximate sampling locations.

Soil Sampling

The borings will be advanced to a depth of approximately five feet bgs using a direct push drill rig. Citadel will collect continuous cores in all locations for geologic characterization. Soil samples will be collected in acetate sleeves at one, three and five feet bgs. The soil borings will be logged by, or under the supervision of a California Professional Geologist, and soil samples collected from each boring will be field screened with a photoionization detector (PID) or equivalent device to monitor the vapor space for the presence of VOCs.

Soil Vapor Sampling

After collection of soil samples, soil vapor sampling probes will be installed in each of the 12 borings, at approximately five feet bgs and a permanent traffic rated well box will be installed at each boring location. All soil vapor sampling probes will be installed in accordance with the California Environmental Protection Agency's (Cal EPA) Department of Toxic Substance Control (DTSC) – Active Soil Gas Investigation¹ and Guidance for the Evaluation and Mitigation of

¹ Advisory Active Soil Gas Investigations, California Environmental Protection Agency, Department of Toxic Substance Control, Los Angeles Regional Water Quality Control Board, San Francisco Regional Water Quality Control Board, July 2015.

Subsurface Vapor Intrusion to Indoor Air². Soil vapor probe tips will be placed within a sand pack at the proposed sampling depths. Approximately six inches of dry bentonite chips will be placed over the sand pack, followed by placement of hydrated bentonite. Gas tight fittings will be placed at the end of the probes at the surface. Soil vapor samples will be collected in individually certified, one-liter Summa Canisters following the procedure of the Cal EPA's Active Soil Gas Investigation Authority approximately two hours after the probes have been installed. A helium shroud will be placed over the sampling equipment to allow for quantitative leak testing during the vapor sampling per the recommendations in DTSC's Active Soil Gas Investigations Advisory. Two duplicate soil vapor samples will be collected for QA/QC.

Quality Control/Quality Assurance Samples

Quality Assurance/Quality Control (QA/QC) samples for the project will consist of matrix spike/matrix spike duplicate (MS/MSD) samples (prepared by the laboratory), equipment rinsate of decontaminated multi-use sampling equipment, and sample containers, if used.

QA/QS samples will be prepared using the same procedures as regular soil samples with regard to sample volume, containers, and preservation. The chain-of-custody procedures for the QA/QC samples will also match those of the field soil samples.

Two split duplicate soil samples and two soil vapor sample will be collected and submitted for analysis.

4.4 Investigation Derived Waste

Citadel will collect investigation derived waste (IDW) consisting of boring soils, personal protective equipment, sampling tools, purged groundwater, and other waste streams into a small DOT-rated drum for off-site disposal. Citadel will arrange for transportation and disposal of the IDW at the earliest possible time following the receipt of soil sample results.

4.5 Laboratory Analysis

Soil Samples

The soil samples will be placed in a chilled cooler for transportation to an accredited laboratory for analysis under proper chain of custody (COC) procedures. A total of 36 soil samples will be submitted to the laboratory. Approximately 18 soil samples and two split soil samples from the borings located in the areas of native soil will be selected for analysis, the remaining soil samples will be held by the laboratory and not analyzed. The 18 selected soil samples will be analyzed for TPH by EPA Method 8015M, VOCs and oxygenates by EPA Method 8260B, PAHs by EPA Method 8270C SIM, PCBs by EPA Method 8082 and Title 22 heavy metals by EPA Methods 6010B/7471A.

Soil Vapor Samples

Twelve soil vapor samples plus two duplicate samples will be analyzed for VOCs by EPA Method TO-15 SIM, TPHg by EPA Method TO-3 and fixed gases, including helium, by ASTM D1946.

² Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, Department of Toxic Substance Control, California Environmental Protection Agency, October 2011.

5.0 DATA EVALUATION, MANAGEMENT, AND REPORTING

Upon completion of all on-site activities, a final report will be submitted documenting Citadel's methodologies, procedures, and laboratory analytical results. Boring logs with PID readings for all locations will be included in the report. The report will provide a discussion of findings, conclusions and recommendations regarding the current environmental condition of the Site.

6.0 REFERENCES CITED

Citadel Environmental Services, Inc. (Citadel), 2011a. Subsurface Investigation Report, Former Red Star Yeast Company, 1396 5th Street, Oakland, California 94607, SLIC Case Number: RO0002896, Global ID: T06019794669. March 18.

Citadel, 2011b. Revised Remedial Action Plan, Former Red Start Yeast Company, 1396 5th Street, Oakland, California 94607, SLIC Case Number: RO0002896, Global ID: T06019794669. July 7.

Citadel, 2015. Soil Excavation Report, Former Red Start Yeast Company, 1396 5th Street, Oakland, California 94607, SLIC Case Number: RO0002896, Global ID: T06019794669. Revised September 22, 2015.

Citadel, 2016. Phase II Subsurface Investigation Report and Closure Request. July 28.

7.0 SIGNATURES

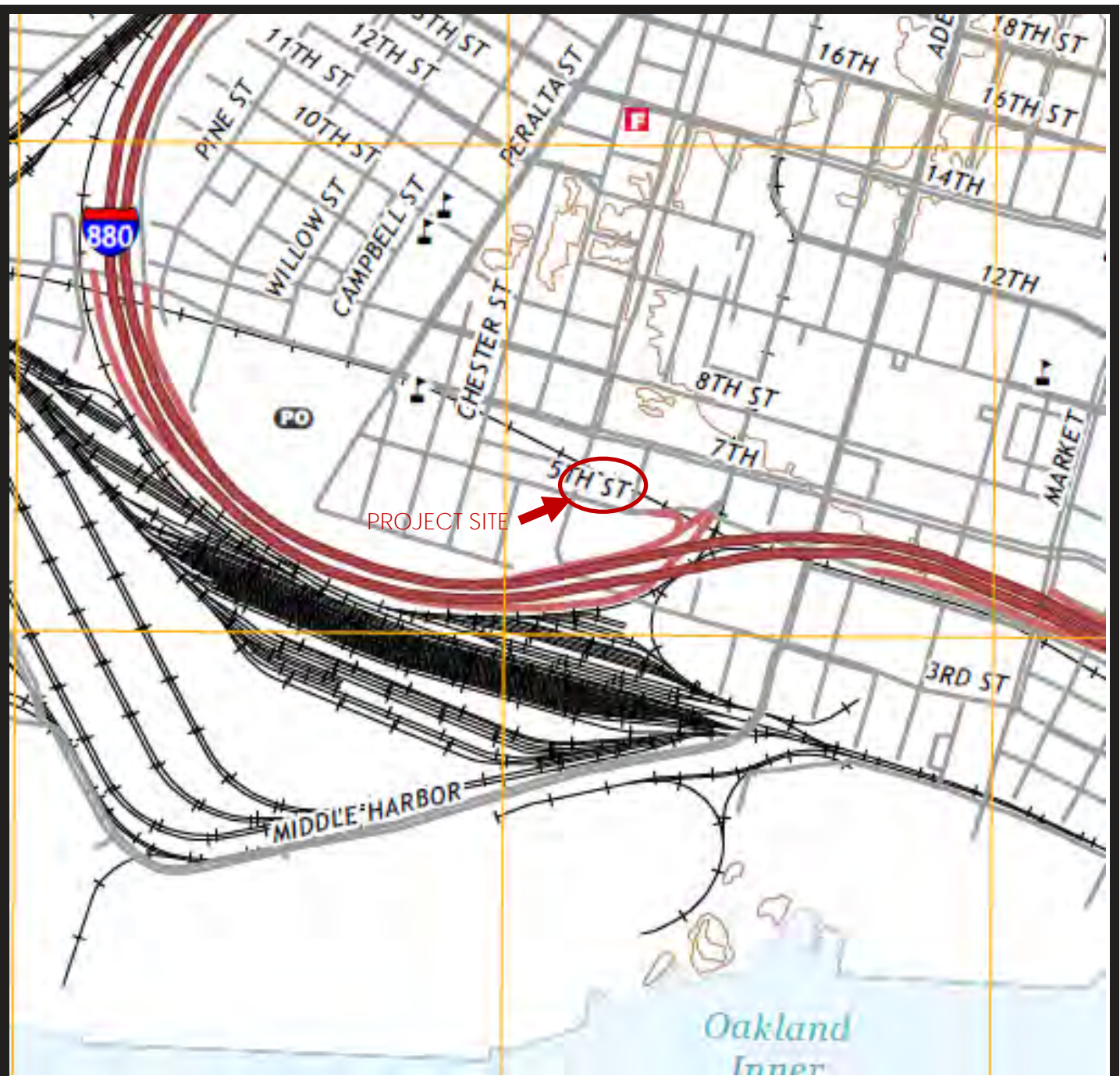
Report Prepared by:

T. Michael Pendergrass, PG
Senior Project Geologist, Engineering and Environmental Sciences

Reviewed by

Mark Drollinger, M. Eng., CSP, CHMM
Principal, Engineering and Environmental Sciences

Figures



Source: USGS, Oakland West, CA Quadrangle, 2018, 7.5 Minute Series

Not to Scale



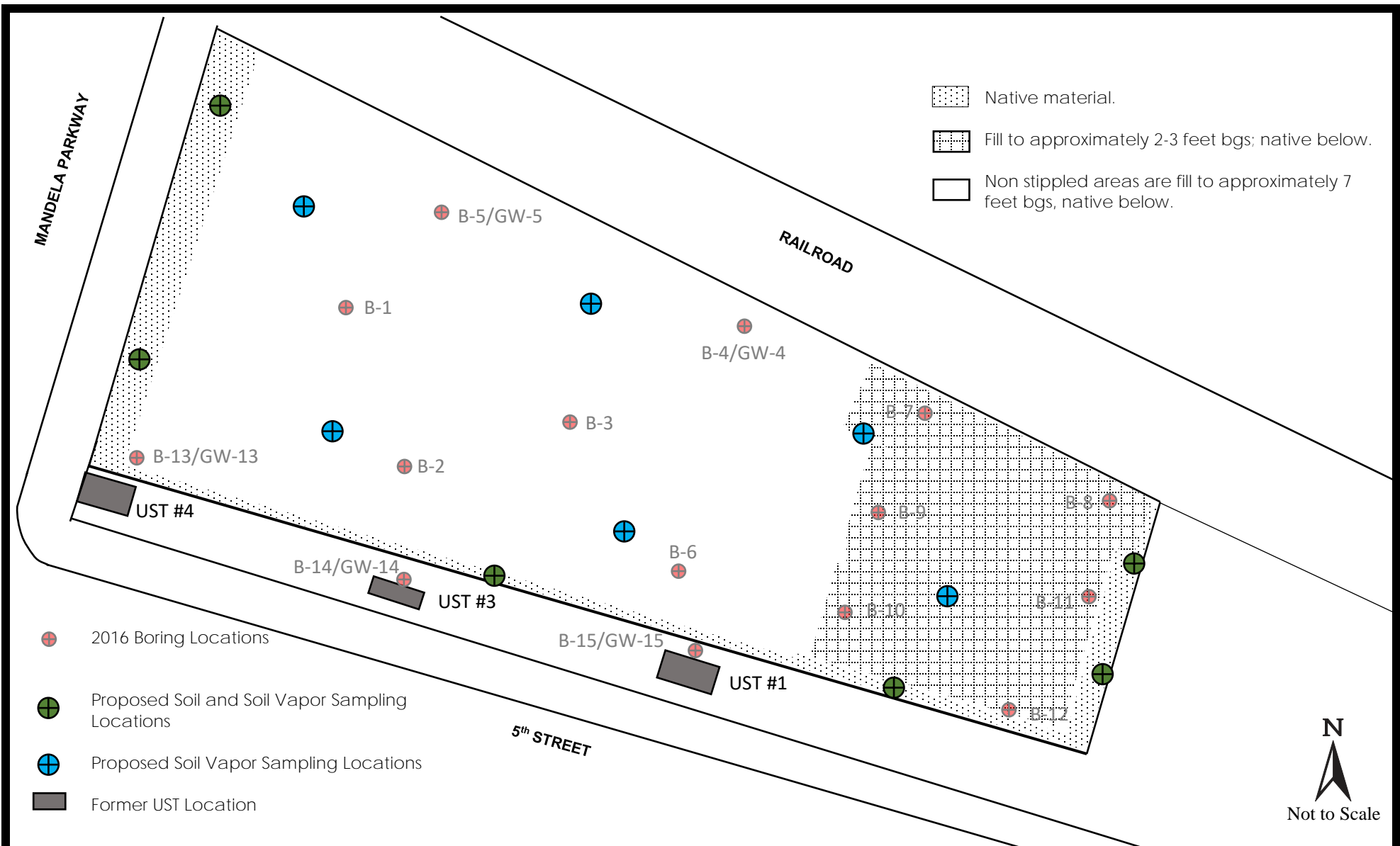
Proposed Golden West Residential Development
1396 Fifth Street
Oakland, California 94607

Figure 1

PROJECT NO.: 0849.1003.0

DATE: OCTOBER 2021

Site Location Map



Proposed Golden West Residential Development

1396 5th Street
Oakland, California

Figure 2

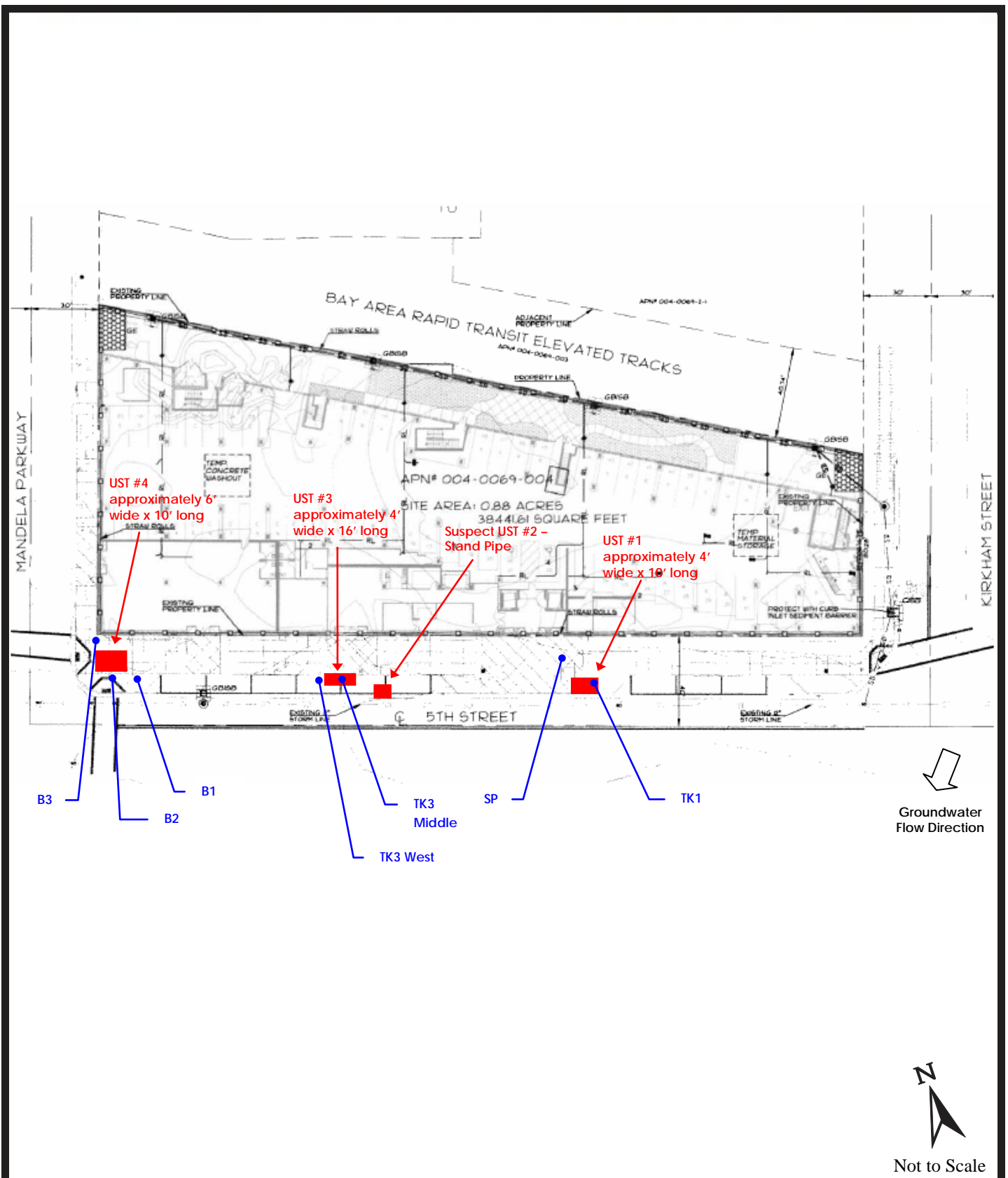
PROJECT NO: 0849.1003.0

DATE: OCTOBER 2021

Proposed Boring Locations

Appendix A

Map of the 2012 UST Removal and Soil Sample Locations



Source: Robertson & Dominick, Inc., Erosion/Sediment Control Plan



OAKLAND HOUSING INVESTORS, LP
1396 Fifth Street
Oakland, California 94607

Figure 2

PROJECT NO.: 0222.1003.0
DATE: August 2012

Sample Locations

Appendix B

ACDEH Work Plan Approval

From: [Mark Drollinger](#)
To: [Mike Pendergrass](#)
Subject: FW: 1396 e. 5th st./Michaels Deve.
Date: Tuesday, November 30, 2021 11:16:35 AM
Attachments: [0849.1003.0 Phase II Investigation Work Plan.pdf](#)

thanks

From: Roe, Dilan, Env. Health <Dilan.Roe@acgov.org>
Sent: Thursday, November 11, 2021 6:30 PM
To: Mark Drollinger <mdrollinger@citadelehs.com>
Cc: Nalinna Rasu <nrasu@citadelehs.com>; Scott Cooper <scooper@tmo.com>; Jessica Kane <jkane@tmo.com>
Subject: RE: 1396 e. 5th st./Michaels Deve.

Good Evening Scott:

Alameda County Department of Environmental Health (ACDEH) has reviewed the case file for the subject property in conjunction with the *Phase II Subsurface Investigation Work Plan*, dated October 6, 2021 prepared on your behalf by Citadel EHS (Work Plan).

The Work Plan presents a scope of work to collect soil and soil vapor samples at the site to fill remaining data gaps with respect to potential shallow soil and soil vapor impacts from residual chemicals of concern associated with historical land use at and in the vicinity of the site including:

- Advancement of six borings in native soil along the west, south and east perimeter of the site to collect soil samples in native soil in areas that were not sampled during previous investigations.
- Installation of six permanent vapor probes and collection of soil vapor samples for analysis of volatile organic compounds, total petroleum hydrocarbons as gasoline, fixed gases, and the leak compound helium.

ACDEH concurs that the proposed scope of work will collect fill the remaining data gaps to facilitate site redevelopment and requests that you implement the work and submit a report documenting the investigation activities and results by January 28, 2021.

Dilan Roe, PE
Chief – Land & Water Division
510-567-6767

From: Mark Drollinger <mdrollinger@citadelehs.com>
Sent: Thursday, November 11, 2021 11:25 AM
To: Roe, Dilan, Env. Health <Dilan.Roe@acgov.org>
Subject: 1396 e. 5th st./Michaels Deve.

Dilan,

Good morning. Im just checking in to see if you will be able to approve and/or comment on our Work Plan to complete the subsurface investigation at the is property. Please let me know if this will be finalized this week or next. Thank you Dilan.

Mark

Mark Drollinger, M. Eng., CSP, CHMM

Principal, Engineering and Environmental Sciences



Los Angeles – Corporate Office

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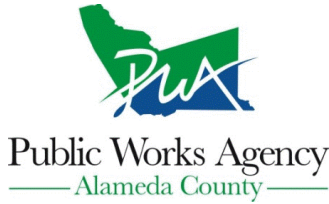
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Appendix C

Soil Boring Permit

Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 11/30/2021 By tonyx

Permit Numbers: W2021-0874 to W2021-0875
Permits Valid from 11/30/2021 to 12/03/2021

Application Id: 1637016602512 **City of Project Site:**Oakland
Site Location: 1396 Fifth St, Oakland, CA 94607, USA-County Health Order 20-10 Appendix B Protocol Being

Used-ACDEH Case# RO0003500 and DTSC Case#01510022

Project Start Date: 11/30/2021 **Completion Date:**12/03/2021

Assigned Inspector: Contact Tony Xiong at (510) 213-9906 or tonyx@grzones.com

Applicant: Citadel EHS - Mike Pendergrass **Phone:** 818-296-9405
2 Peters Canyon Road, Suite 200, Costa Mesa, CA 92626

Property Owner: Michael's Development **Phone:** 818-296-9405
2020 West Kettleman Lane, PO Box 1570, Lodi, CA 95241

Client: ** same as Property Owner ** **Phone:** 818-296-9405
Contact: Mike Pendergrass **Cell:** 818-482-1176

	Total Due:	\$530.00
Receipt Number: WR2021-0556	Total Amount Paid:	\$530.00
Payer Name : Mike Pendergrass	Paid By: VISA	PAID IN FULL

Works Requesting Permits:

Well Construction-Vapor monitoring well-Vapor monitoring well - 12 Wells
Driller: Trinity Drilling - Lic #: 1010926 - Method: DP

Work Total: \$265.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2021-0874	11/30/2021	02/28/2022	B-16	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021-0874	11/30/2021	02/28/2022	B-17	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021-0874	11/30/2021	02/28/2022	B-18	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021-0874	11/30/2021	02/28/2022	B-19	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021-0874	11/30/2021	02/28/2022	B-20	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021-0874	11/30/2021	02/28/2022	B-21	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021-0874	11/30/2021	02/28/2022	B-22	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021-0874	11/30/2021	02/28/2022	B-23	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021-0874	11/30/2021	02/28/2022	B-24	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021-0874	11/30/2021	02/28/2022	B-25	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021-0874	11/30/2021	02/28/2022	B-26	2.00 in.	2.00 in.	2.00 ft	5.00 ft
W2021-0874	11/30/2021	02/28/2022	B-27	2.00 in.	2.00 in.	2.00 ft	5.00 ft

Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend

Alameda County Public Works Agency - Water Resources Well Permit

and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

2. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned.

4. No changes in construction procedures or well type shall change, as described on this permit application. This permit may be voided if it contains incorrect information.

5. Applicant shall submit the copies of the approved encroachment permit to this office within 10 days.

6. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

8. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

9. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.

10. Vapor monitoring wells above water level constructed with tubing maybe be backfilled with pancake-batter consistency bentonite. Minimum surface seal thickness is two inches of cement grout around well box.

Vapor monitoring wells above water level constructed with pvc pipe shall have a minimum seal depth (Neat Cement Seal) of 2 feet below ground surface (BGS). Minimum surface seal thickness is two inches of cement grout around well box. All other conditions for monitoring well construction shall apply.

11. All borehole destruction work requires inspection by ACPWA; Except for special circumstances, all work that requires inspection must be performed during the work hours of 8:30 a.m. to 3:30 p.m., Monday through Friday, except holidays

Alameda County Public Works Agency - Water Resources Well Permit

Driller: Trinity Drilling - Lic #: 1010926 - Method: DP

Work Total: \$265.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2021-0875	11/30/2021	02/28/2022	6	2.00 in.	5.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
 2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
 3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
 4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned.
 5. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
 6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
 7. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.
 8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.
 9. All borehole destruction work requires inspection by ACPWA; Except for special circumstances, all work that requires inspection must be performed during the work hours of 8:30 a.m. to 3:30 p.m., Monday through Friday, except holidays
-

Appendix D

Health and Safety Plan



CITADEL EHS

assess resolve strengthen

Michaels Development

2020 W. Kettleman Lane

P.O. Box 1570

Lodi, California 95241

Health and Safety Plan

September 30, 2021

Citadel Project Number 0849.1003.0

Proposed Golden West Residential Development

1396 Fifth Street

Oakland, California 94607

www.CitadelEHS.com

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1.0 SITE DESCRIPTION

Citadel EHS (Citadel) has prepared this Health and Safety Plan (HASP) for use during Phase II Subsurface Investigation activities to be conducted at the Proposed Golden West Residential Development located at 1396 Fifth Street, in the City of Oakland, California (Site). Activities conducted under Citadel's direction at the Site will be in compliance with applicable Occupational Safety and Health Administration (OSHA) regulations, particularly those in Title 8 California Code of Regulations (CCR) 5192, and other applicable federal, state, and local laws, regulations, and statutes. A copy of this HASP will be kept onsite during scheduled field activities.

2.0 BACKGROUND

The Site is identified in the County of Alameda as Assessor's Parcel Number 004-69-004. The Site totals approximately 0.88 acres and is an irregular shaped parcel of land situated along the north side of Fifth Street, between Mandela Parkway to the east, and Kirkham Street to the west. An elevated BART track is situated along the northern boundary of the Site. The Site is currently comprised of vacant land.

Historically, the Site has been developed and occupied by yeast manufacturing, vinegar production, and various brewery operations from at least 1880. Environmental concerns identified at the Site have included above ground and underground fuel tanks, the use of various chemicals with several documented releases, and an unauthorized release of mercury to the sewer system with apparent impacts to the subsurface soil. A major fire occurred at the Site in 2012 significantly damaging the structure and surrounding properties. The remaining structure consisting of a concrete podium to be used for parking and building support was removed in April 2016.

Groundwater samples were collected from five temporary monitoring wells (MW1-MW-5) installed across the Site during a subsurface investigation by Citadel in 2010; none of the samples had detectable areas of VOCs SVOCs, gasoline range TPH or diesel range TPH, the sample from MW-5 had oil-range hydrocarbons at a concentration of 2,400 micrograms per liter ($\mu\text{g/L}$), which exceeded the San Francisco Regional Water Quality Control Board's (SFRWQCB) Environmental Screening Level of 210 $\mu\text{g/L}$.

In mid-August 2011, Advent Companies, the general contractor for the project, initiated the excavation program at the Site. Confirmation soil samples collected during the excavation indicated that lead was present at a concentration of 93 milligrams per kilogram (mg/kg) in sample S31-3 collected at three feet below grade from the east side of the Site, which exceeded the Office of Environmental Health Hazard assessment's (OEHHA) Soil Screening Level (SSL) of 80 mg/kg for residential scenarios. The source and types of quality control used for backfilling the excavation appear to be unknown. Additional soil sampling is necessary to verify that the imported fill material is suitable for the Site.

On November 29, 2011, soil was excavated by Sequoia Construction and Development, Inc., (Sequoia) from above and along the sides of the USTs (see Figure 3 for UST locations) to expose their tops and walls in preparation for removal. The volumes for the USTs were determined visually and were reportedly 250 gallons (UST No 1), 2,500 gallons (UST No. 3) and 10,000 gallons (UST No. 4). Suspected UST No. 2 was found to be a disconnected standpipe. No associated structure for this standpipe was located. UST Nos. 1 and 3 were removed and transported off-site for recycling. The condition of both USTs was fair with no observable holes, significant corrosion or scaling evident. UST No. 4 was filled with a concrete slurry and sealed prior to being closed in-place. Analysis of soil samples after abandonment/removal of the USTs indicated TPH at concentrations

of 9, 37, and 31 mg/kg, in soil samples collected in the vicinity of UST No.1, UST No.2, and UST No.3, respectively.

In June 2016, Citadel advanced fifteen soil borings at the Site. Citadel collected continuous cores at all locations for geologic characterization of the fill and native material at the Site and to evaluate soil and groundwater in select areas.

Native soil was identifiable as a silt, very fine sand and clay. In the western portion of the Site native soils were predominantly reddish-brown silt. In the northern portion of the Site a plastic clay was found to underlie the imported fill material. In the north-central portion of the Site the reddish-brown silt underlay the clay. Along the southern boundary of the Site the silt underlying the import fill was more clay rich. Native soil in the eastern end of the Site varied from poorly or well-graded sand to the reddish-brown silt/very fine sand.

Imported fill at the Site was mostly identifiable as a gravel with silt and sand, and well-graded sand with gravel, usually grayish in color. Fill material encountered in in the northeast corner of the Site did not match the fill that was observed on the remainder of the Site. It was concluded that this corner of the Site was not excavated in 2011 and the fill encountered is from an earlier undocumented excavation.

Soil samples collected from the fill material were analyzed for polychlorinated biphenyls (PCBs) by EPA Method 8082, polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270C SIM, and lead using EPA Method 6020. Soil samples collected from native material were analyzed for TPHd and TPHo by EPA Method 8015B, TPHg by EPA Method 8260B and for Title 22 CAM metals by EPA Methods 6020 and 7471A. The six soil samples collected near the former USTs were analyzed for TPHd and TPHo by EPA Method 8015B, TPHg by EPA Method 8260B, and full scan VOCs using EPA Method 8260B.

PCBs were not detected from any of the soil samples collected from the fill material or the native soil. No soil samples collected from fill material were found to exceed the Tier 1 ESL for TPHg, TPHd, TPHo, VOCs, PCBs or metals with the exception of arsenic. The concentrations of arsenic from fill were found to be slightly higher (between 3.6 and 5.7 mg/kg) than underlying native soil (between 2.0 and 3.7 mg/kg). Arsenic concentrations did not exceed the background levels for arsenic in the San Francisco Bay region according to a Master's Thesis posted on the SWRCB's website with all results below the 11 mg/kg upper estimate (99th percentile) and only one result is above the 4.61 mg/kg mean from this study.

Most soil samples analyzed for PAHs were found to have detectable concentrations of anthracene, benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[a]pyrene, benzo[k]fluoranthene, chrysene, fluoranthene, indeno[1,2,3-cd] pyrene, phenanthrene and pyrene. Several samples were found to have detectable levels of acenaphthene, dibenz(a,h)anthracene, fluorine and naphthalene. Tier 1 ESLs were used to evaluate the results from the soil sampling. The Tier 1 ESL for benzo[a]pyrene (0.016 mg/kg) was exceeded in several soil samples with a maximum concentration of 0.150 mg/kg. The Tier 1 ESL for benzo[a]anthracene (0.037 mg/kg), benzo[b]fluoranthene (0.16 mg/kg) and dibenz(a,h)anthracene (0.016 mg/kg) were also exceed with maximum concentrations of 0.170 mg/kg, 0.200 mg/kg and 0.017 J mg/kg, respectively.

Citadel collected five groundwater grab samples in the vicinity of the three former USTs and upgradient of the USTs. Soil samples were collected in acetate sleeves, the sleeves were labeled, sealed, and all samples delivered to a state-certified laboratory for analysis. Groundwater samples were analyzed for VOCs and TPHg by EPA Method 8260B and for TPHd and TPHo by EPA Method 8015B. Maximum concentrations in groundwater were observed in the upgradient sample

locations. Contaminant concentrations in groundwater samples were compared with California Maximum Contaminant Levels (MCL) and SFRWQCB (2016) Tier 1 ESLs. Groundwater collected from the two upgradient sampling locations near the railroad right-of-way (ROW) exceed the Tier 1 ESLs for TPHg, TPHd, BTEX and TBA. Tier 1 ESLs for TPH and VOCs are driven by human health from direct exposure to shallow ground water. Future development is not anticipated to include direct exposure to groundwater.

Based on Citadels findings and conclusions, from the 2016 investigation, the current ESLs, the proposed development and a request from the ACDEH, Citadel is preparing this Site Assessment Work Plan for submittal and approval by the ACDEH to address soil and soil vapor data gaps at the Site.

3.0 SAFETY POLICY

Safety will be given primary importance in the planning and operation of this project. It is the policy of Citadel to conform to current OSHA standards in construction and local government agency requirements having authority over the project as regards to Citadel employees, subcontractors and public safety.

Each subcontracting firm will assume primary responsibility for the safety of their own work in regard to their employees and other persons. Subcontractors will assume the duty to comply with OSHA, and all other federal, state and local regulations. Their HASP must be as stringent as that for Citadel.

The subcontractors work will be monitored by Citadel project managers for implementation of the Citadel HASP, while adhering to their own safety program. Citadel will retain the authority and power to enforce this HASP during the progress of the work. Any deficiencies in safe work practices will be brought to the attention of the subcontractor firm's supervisor for immediate corrective action. If the subcontractor fails or refuses to take corrective action promptly a stop work order shall be issued and the subcontractor or the subcontractor employee may be removed from the project.

4.0 WORK DESCRIPTION

Based on previous investigations at the Site, groundwater is anticipated to be approximately 11 feet below ground surface (bgs), with groundwater flow to the south. Due to the shallow nature of the sample locations, groundwater is not expected to be encountered during this investigation.

To evaluate the soil and soil vapor, Citadel will advance 12 borings at the Site at approximate 75-foot centers. Boring locations will be chosen to obtain representative soil vapor samples from the Site and obtain soil samples from areas of native soils along the west, south and east perimeter of the Site that were not previously sampled.

Prior to commencing with Phase II activities, Citadel will mark proposed boring locations and contact Underground Service Alert (USA) for marking off utilities.

Soil Sampling

The borings will be advanced to a depth of approximately five feet bgs using a direct push drill rig. Citadel will collect continuous cores in all locations for geologic characterization. Soil samples

will be collected in acetate sleeves at one, three and five feet bgs. The soil borings will be logged by, or under the supervision of a California Professional Geologist, and soil samples collected from each boring will be field screened with a photoionization detector (PID) or equivalent device to monitor the vapor space for the presence of VOCs.

After collection of soil samples, Citadel will install soil vapor sampling probes in each boring at approximately five feet bgs.

Soil Vapor Sampling

After collection of soil samples, soil vapor sampling probes will be installed in each of the 12 borings, at approximately five feet bgs and a permanent traffic rated well box will be installed at each boring location. All soil vapor sampling probes will be installed in accordance with the California Environmental Protection Agency's (Cal EPA) Department of Toxic Substance Control (DTSC) – Active Soil Gas Investigation¹ and Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air². Soil vapor probe tips will be placed within a sand pack at the proposed sampling depths. Approximately six inches of dry bentonite chips will be placed over the sand pack, followed by placement of hydrated bentonite. Gas tight fittings will be placed at the end of the probes at the surface. Soil vapor samples will be collected in individually certified, one-liter Summa Canisters following the procedure of the Cal EPA's Active Soil Gas Investigation Authority approximately two hours after the probes have been installed. A helium shroud will be placed over the sampling equipment to allow for quantitative leak testing during the vapor sampling per the recommendations in DTSC's Active Soil Gas Investigations Advisory. Two duplicate soil vapor samples will be collected for QA/QC.

Soil Sample Laboratory Analysis

The soil samples will be placed in a chilled cooler for transportation to an accredited laboratory for analysis under proper chain of custody (COC) procedures. A total of 36 soil samples will be submitted to the laboratory. Approximately 18 soil samples from the borings located in the areas of native soil will be selected for analysis, the remaining soil samples will be held by the laboratory and not analyzed. The 18 selected soil samples will be analyzed for TPH by EPA Method 8015M, VOCs and oxygenates by EPA Method 8260B, polyaromatic hydrocarbons (PAHs) by EPA Method 8270C SIM, polychlorinated biphenyls by EPA Method 8082 and Title 22 heavy metals by EPA Methods 6010B/7471A.

Soil Vapor Sample Laboratory Analysis

Twelve soil vapor samples plus two duplicate samples will be analyzed for VOCs by EPA Method TO-15 SIM, total petroleum hydrocarbons as gasoline (TPHg) by EPA Method TO-3 and fixed gases, including helium, by ASTM D1946.

¹ Advisory Active Soil Gas Investigations, California Environmental Protection Agency, Department of Toxic Substance Control, Los Angeles Regional Water Quality Control Board, San Francisco Regional Water Quality Control Board, July 2015.

² Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, Department of Toxic Substance Control, California Environmental Protection Agency, October 2011.

5.0 KEY PROJECT PERSONNEL AND RESPONSIBILITIES

Project Manager	Mike Pendergrass (Citadel)
Site Safety Officer (SSO)/Project Monitor	Tim Lambert (Citadel)
Subcontractor Personnel	Trinity Drilling
Site Representatives	Scott Cooper, Michaels Development Alameda County Environmental Health City of Oakland

PROJECT MANAGER

The Project Manager has the ultimate responsibility for the health and safety of personnel at the Site. The Project Manager is responsible for:

- Ensuring that project personnel review and understand the requirements of this HASP;
- Keeping on-site personnel informed of the expected hazards and appropriate protective measures at the Site; and
- Providing resources necessary for maintaining a safe and health work environment

SITE SAFETY OFFICER/PROJECT MONITOR

The SSO is responsible for enforcing the requirements of this HASP once site work begins. The SSO has the authority to immediately correct situations where noncompliance with this HASP is noted and to immediately stop work in cases where an immediate danger to site workers or the environment is perceived. Responsibilities of the SSO also include:

- Obtaining and distributing PPE and air monitoring equipment necessary for this project;
- Limiting access at the Site to authorized personnel;
- Communicating unusual or unforeseen conditions at the Site to the Project Manager;
- Supervising and monitoring the safety performance of site personnel to evaluate the effectiveness of health and safety procedures and correct deficiencies;
- Conducting daily tailgate safety meetings before each day's activities begin; and
- Conducting a site safety inspection prior to the commencement of each day's field activities.

SUBCONTRACTOR PERSONNEL

Subcontractor personnel are expected to comply with the minimum requirements specified in this HASP. Failure to do so may result in the dismissal of the subcontractor or any of the subcontractor's workers from the job site. Subcontractors may employ health and safety procedures that afford them a greater measure of personal protection than those specified in this plan as long as they do not pose additional hazards to themselves, the environment, or others working in the area.

6.0 SITE CONTROL MEASURES

The SSO or Project Manager has been designated to coordinate access and security on site.

7.0 STANDARD OPERATING PROCEDURES

GENERAL SAFETY

- Maintain good housekeeping at all times in all project work areas.
- Check the work area to determine what problems or hazards may exist.
- Designate specific areas for the proper storage of materials.
- Store tools, equipment, materials, and supplies in an orderly manner.
- Provide containers for collecting trash and other debris.
- Clean up all spills quickly.
- Report unsafe conditions or unsafe acts to your supervisor immediately.
- Report all occupational illnesses, injuries, and vehicle accidents.
- Do not wear loose clothing, wristwatches, and other loose accessories when within arm's reach of moving machinery.
- Emergency exits and evacuation areas should be clearly marked during work activities.
- Personnel fall protection is required when climbing to perform maintenance six feet or higher above ground.
- Inspect hand tools and use proper PPE.
- Ensure proper grounding and guarding of equipment.
- Keep hands and fingers out of pinch points.
- Use good ergonomic posturing when working with heavy items.

HAZARD EVALUATION

The following substances are known or suspected to be on site. The primary hazards of each are identified as follow:

<u>Substances</u>	<u>Concentration</u>	<u>Primary Hazards</u>
Total Petroleum Hydrocarbons	Various	Ingestion, inhalation, skin
Volatile Organic Compounds	Various	Ingestion, inhalation, skin
Title 22 Metals	Various	Ingestion, inhalation, skin

COMMUNICATION PROCEDURES

Due to the close proximity of all field crew members, the necessity for radio communication is not necessary.

The following standard hand signals will be used:

Hand drawn across throat	Cease operation immediately
Hand gripping throat	Out of air, can't breathe
Grip partner's wrist or both hands around waist	Leave area immediately
Hands on top of head	Need assistance
Thumbs up	OK, I am alright, understood
Thumbs down.....	No, negative

FIELD VEHICLES

- Equip vehicles with emergency supplies and equipment.
- Maintain both a first aid kit and fire extinguisher in the field vehicle at all times.
- Utilize a rotary beacon on vehicle if working adjacent to active roadway.
- Always wear seatbelt while operating vehicle.
- Tie down loose items.

MANUAL LIFTING

- Personnel shall seek assistance when performing manual lifting tasks that appear beyond their physical capabilities.

- Assess the situation before lifting, ensure good lifting and body positioning practices, and ensure good carrying and setting down practices.

HEAT EXPOSURE

- Limit exposure to the sun or take extra precautions when the UV index rating is high.
- Take lunch and breaks in shaded areas.
- Create shade by using umbrellas, tents, and canopies.
- Wear proper clothing: long sleeved shirts with collars, long pants, and UV-protective sunglasses or safety glasses.
- Apply sunscreen generously to all exposed skin surfaces at least 20 minutes before exposure. Re-apply sunscreen at least every 2 hours, and more frequently when sweating or performing activities where sunscreen may be wiped off.
- Communicate any concerns regarding heat stress to a supervisor.
- Keep hydrated throughout the day (about 4 cups per hour).
- OHSA's Heat Index:

Heat Index	Risk Level	Protective Measures
Less than 91°F	Lower (Caution)	Basic heat safety and planning
91°F to 103°F	Moderate	Implement precautions and heighten awareness
103°F to 115°F	High	Additional precautions to protect workers
Greater than 115°F	Very High to Extreme	Triggers even more aggressive protective measures

Utilities (Under Ground and Above Ground): Low Hazard. All boring locations will be hand drilled and stop work will be enforced if any utilities are encountered.

Biological Hazards: Low to Medium Hazard. Beware of spiders, insects and other possible animals.

Site Instability: Low to Medium Hazard. The Site will be inspected prior to equipment placement and closely monitored. Any settling of the equipment will cause the work to stop immediately.

Equipment Refueling: Low Hazard. Equipment shall not be refueled with the engine running. Cigarettes, open flames, or other ignition sources are not allowed within 50 feet of the fueling location.

Personnel Injury: Upon notification of an injury, the Project Field Leader should evaluate the nature of the injury, and the affected person should be decontaminated to the extent possible prior to movement. The Project Field Leader shall initiate the appropriate first aid, and contact should be made for an ambulance and with the designated medical facility (if required).

Fire/Explosion: The fire department shall be alerted, and all personnel moved to a safe distance from the involved area.

Other Equipment Failure: If any other equipment on site fails to operate properly, the Project Team Leader shall be notified and then determine the effect of this failure on continuing operations on site. If the failure affects the safety of personnel or prevents completion of the Work Plan tasks, work will cease until the situation is evaluated and appropriate actions taken.

COVID-19 FIELD WORK PREVENTION GUIDELINES

The following guidelines were prepared to prevent COVID-19 transmission while performing essential field work activities at the Site:

1. Stay at least 6 feet from others whenever possible. Avoid, or at least minimize close contact with others. Close contact means being within 6 feet of someone else for more than 15 minutes. By CDC guidelines, it doesn't matter if you are wearing face covering or not to be consider as being in close contact. Even with face covering, being close for extended periods of time, can greatly increase your risk of exposure. *Keep your distance even when wearing face covering or PPE.*
2. Wear face covering in public and anytime you will interface with others, regardless of time. *Distance and face covering are likely the two best methods available to minimize exposures.*
3. Wash your hands frequently and avoid touching your face, nose and mouth with unwashed hands. Also, don't be fooled into a false sense of security, believing gloves will fully protect you from COVID-19. Even when you wear gloves for protection against chemicals, you still need to wash your hands to minimize exposure.

Be careful when putting on and taking off PPE to be sure we do not contaminate our hands in the process and then touch our face, nose or mouth with unwashed hands. In doing so, we defeat the purpose of wearing PPE. *Also, don't overdo the hand sanitizer – choose to use soap and water as much as possible.*

4. Clean and disinfect surfaces you come into contact and minimize touching commonly used surfaces whenever possible. Cleaning and disinfecting surfaces would not be as important if everyone were wearing face covering and washing their hands more regularly. But because individual behaviors vary quite a bit, we need to do what we can to protect ourselves and others by routinely cleaning and disinfecting the things we touch. How often will depend on how often you touch a surface or object and whether others are likely to come into contact with it as well. *Cleaning and disinfecting helps reduce exposure, but don't rely on it as a replacement for distancing, face covering and hand washing.*
5. Monitor your own health for COVID-19 symptoms and stay at home, away from others, if symptoms develop. The sooner you self-isolate, the more you lessen the chance of spreading it to others, regardless of whether it is COVID-19, the flu or some other contagion.

8.0 PERSONAL PROTECTIVE EQUIPMENT

The purpose of PPE is to protect employees from hazards and potential hazards they are likely to encounter during site activities. The amount and type of PPE used will be based on the nature of the hazard encountered or anticipated. Respiratory protection will be utilized when an airborne hazard has been identified using real-time air monitoring devices, or as a precautionary measure in areas designated by the SSO, elevating to level C. If this occurs, contractor personnel shall be respirator-approved.

Dermal protection, primarily in the form of chemical-resistant gloves and coveralls, will be worn whenever contact with chemically affected materials (e.g. soils, groundwater, sludge) is anticipated,

without regard to the level of respiratory protection required.

Based on evaluation of potential hazards, the following levels of personal protection have been designated for the applicable work areas or tasks:

<u>Location</u>	<u>Job Function</u>	<u>Level of Protection</u>
Controlled Area	All Workers	A B C D Other

Specific protective equipment for each level of protection is as follows:

Level A Fully-encapsulating suit SCBA Disposable coveralls	Level C Splash gear Half-face canister respirator with H ₂ S/VOC cartridge Mouth/nose canister respirator Efficiency 100 (HEPA)
Level B Splash gear SCBA	Level D Hard hat Ear plugs Neoprene or leather gloves - nitrile gloves Safety vests and Glasses Hard toe boots

NO CHANGES TO THE SPECIFIED LEVELS OF PROTECTION SHALL BE MADE WITHOUT THE APPROVAL OF THE SSO OR PROJECT MANAGER.

9.0 DECONTAMINATION PROCEDURES

Despite protective procedures, personnel may come in contact with potentially hazardous compounds while performing work tasks. If so, decontamination needs to take place using an Alconox or tri-sodium phosphate (TSP), followed by a rinse with clean water. Standard decontamination procedure for levels C and D are as follows:

- Equipment drop
- Boot cover and outer glove wash and rinse
- Boot cover and out glove removal
- Suit wash and rinse
- Suit removal
- Safety boot wash and rinse
- Inner glove wash and rinse
- Respirator removal
- Inner glove removal
- Field wash of hands and face

Workers should employ only applicable steps in accordance with level of PPE worn and extent of contamination present. The SSO shall maintain adequate quantities of clean water to be used for personal decontamination (i.e. field wash of hands and face) whenever a suitable washing facility is not located in the immediate vicinity of the work area. Disposable items will be disposed of in an appropriate container. Wash and rinse water generated from decontamination activities will be handled and disposed of properly. Non-disposable items may need to be sanitized before reuse.

Each site worker is responsible for the maintenance, decontamination, and sanitizing of his/her own PPE.

Used equipment may be decontaminated as follows:

- An Alconox or TSP and water solution will be used to wash the equipment.
- The equipment will then be rinsed with clean water.

Each person must follow these procedures to reduce the potential for transferring chemically affected materials offsite.

10.0 EMERGENCY PROCEDURES

In the event of an emergency, site personnel will signal distress with three blasts of a horn (a vehicle horn will be sufficient), or other predetermined signal. Communication signals, such as hand signals, must be established where communication equipment is not feasible or in areas of loud noise.

The SSO will designate evacuation routes and refuge areas to be used in the event of an emergency. Site personnel will stay upwind from vapors or smoke and upgradient from spills. Workers should exit through the established decontamination areas wherever possible. If evacuation cannot be done through an established decontamination area, site personnel will go to the nearest safe location and remove contaminated clothing there. Personnel will assemble at the predetermined refuge following evacuation and decontamination. The SSO will count and identify site personnel to verify that all personnel have been evacuated safely. Please refer to Figure 1.0 for the evacuation route and refuge location.

FIGURE 1.0 – EVACUATION ROUTE AND REFUGE AREAS

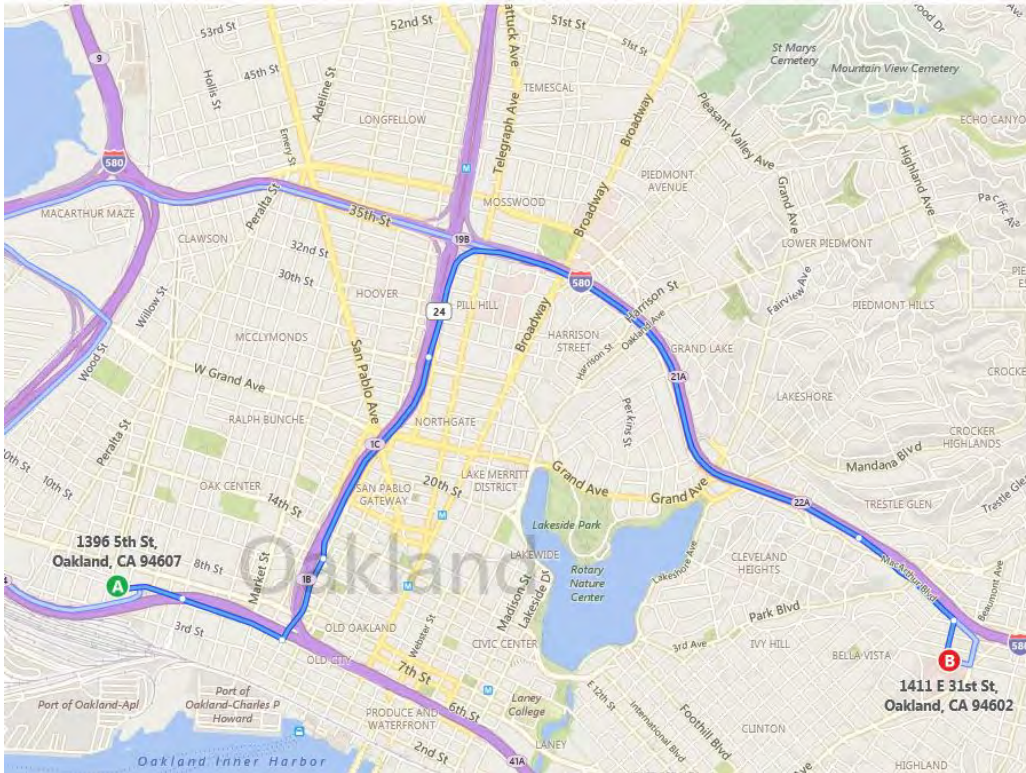


 = Approximate Site Boundaries

 = Refuge Areas

The designated medical facility is:

Highland Hospital
 1411 E 31st St
 Oakland, CA 94602
 Tel: (510) 437 4800



Directions:

- | | |
|--|--------|
| Depart 5th St toward Kirkham St (east) | 0.3 mi |
| Take ramp on right for I-880 South toward Alameda/Broadway | 0.4 mi |
| Turn left onto Castro St | 0.4 mi |
| Take ramp left for I-980 East toward San Francisco/Walnut Creek | 1.0 mi |
| Take ramp right for I-580 East toward Hayward | 2.6 mi |
| At exit 22, take ramp right for MacArthur Blvd towards Park Blvd | 0.5 mi |
| Turn right on Stuart St | 0.2 mi |
| Turn left onto 31st St | 95 ft |
| Arrive at 1411 E 31st St | |

Local ambulance service is available from:

Name: Local Paramedics
 Phone: 911

First-aid equipment is available in the SSO's vehicle.

List of emergency phone numbers:

<u>Agency/Facility</u>	<u>Phone</u>
Police/Fire	911
Hospital	(510) 437 4800

This HASP has been prepared by:

Tim Lambert
Digitally signed by Tim Lambert
Date: 2021.09.29 10:40:03 -07'00'

Tim Lambert
Environmental Technician, Engineering and Environmental Sciences

This HASP has been reviewed by:

T. Michael Pendergrass
Digitally signed by T. Michael Pendergrass
Date: 2021.09.29 10:40:24 -07'00'

T. Michael Pendergrass, PG
Senior Project Geologist, Engineering and Environmental Sciences

Appendix E

USA North 811 Ticket

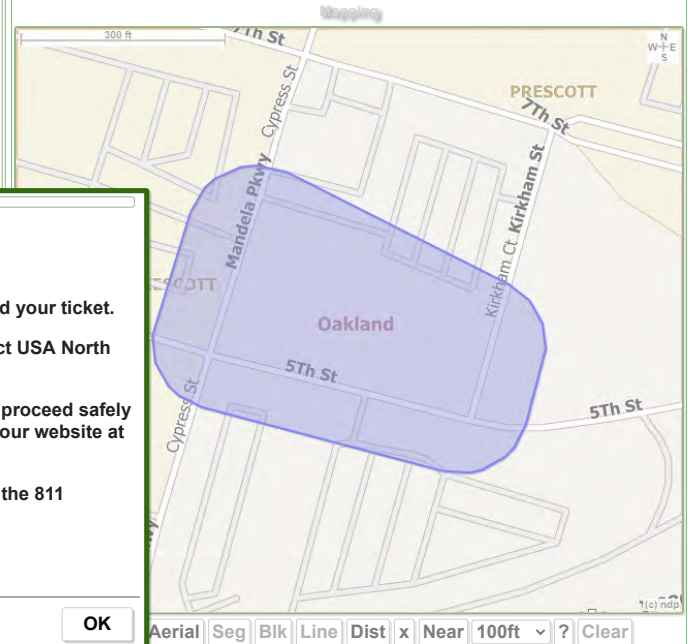
Full Ticket Exit

Excavator Information

Office Phone 818-296-9405 x [] Cell 818-482-1176
 Office Email MPENDERGRASS@CITADELEHS.COM
 Caller MIKE PENDERGRASS
 Company TRINITY DRILLING Mbr
 Type CONTRACTOR Industry []
 Address 114 FERN STREET
 City SANTA CRUZ St CA ZIP 9

Digsite Information (Continued)

Location
 DRILLING ON ENTIRE SITE BOUNDED BY 5TH ST, KIRKHAM ST, MANDELA PKWY AND BART LINE.



Confirmation Information

Your ticket number is **X132201370-01X** and will be active until **12/16/2021**

If your work is going to continue past that date, contact USA North 811 to extend your ticket.

If at any time you need your dig site remarked, it is your responsibility to contact USA North 811 and request your site to be remarked.

If you would like more information about safe excavation practices, and how to proceed safely around utility lines, please visit the Excavation Laws and Guidelines section of our website at www.usanorth811.org.

Are there any questions or concerns I can help answer regarding your ticket or the 811 process?

Thank you.

OK

Work Information

Dig State CALIFORNIA nevada
 Start Time 11/29/2021 05:01 PM PT Priority NORM
 Two Working Days Expires
 11/22/2021 05:01 PM 12/16/2021 11:59 PM

Work For CITADEL EHS
 Premark YES Method WHITE PAINT
 Permit Req COUNTY Permit UNKNOWN
 Site Contact MIKE PENDERGRASS
 Site Phone 818-296-9405 x [] Site Cell 818-482-1176
 Site Email MPENDERGRASS@CITADELEHS.COM Text C []
 Boring VERTICAL Vacuum NO
 Work Type VERTICAL BORING

Digsite Information

County ALAMEDA
 Place OAKLAND
 Lookup ADDRESS
 Street 1396 5TH ST
 Cross St 1 MANDELA PKWY
 Cross St 2 []
 Str/Swk NO Buffer 0
 Lookup

PGEOK	PGE DISTRIBUTION - OAKLAND	Polygon
SFBART	SF BART DISTR REAL ESTATE DEPT	Polygon
TERDEX	TERRADEX INC.	Polygon
TPXCO1	TPX COMMUNICATIONS I	Polygon

Get Mbrs Mbr Info Submit

Find Search Places GPS Grids Layers

Find Street Intersection Both Cross Clear Work Area
 Zoom to County Place Work area Found Dist Bullseye Flags
 Highlight Street Cross1 Cross2 All Clear
 Zoom Zoom Zoom Zoom
 Search Parcel Show Parcel Clear Mile Post ASTR Search Clear
 Swap Street<Cross1 Cross1<Cross2
 Verify Place Check Web Google Bing POI Show Clear

From: notification@usan.org
To: [Mike Pendergrass](#)
Subject: USA North 811 Confirmation for Ticket X132201370-01X
Date: Thursday, November 18, 2021 11:22:01 AM

EMLCFM 11579X USAN 11/18/21 11:21:57 X132201370-01X AMND NORM POLY LREQ

Ticket: X132201370 Rev: 01X Created: 11/18/21 11:21 User: WMWBTMP Chan: WEB

Work Start: 11/29/21 17:01 Legal Start: 11/29/21 17:01 Expires: 12/16/21 23:59
Response required: Y Priority: 2

Excavator Information
Company: TRINITY DRILLING
Co Addr: 114 FERN STREET
City : SANTA CRUZ State: CA Zip: 95060
Created By: MIKE PENDERGRASS Language: ENGLISH
Office Phone: 818-296-9405 SMS/Cell: 818-482-1176
Office Email: mpendergrass@citadelehs.com

Site Contact: MIKE PENDERGRASS
Site Phone: 818-296-9405 Site SMS/Cell: 818-482-1176
Site Email: mpendergrass@citadelehs.com

Excavation Area
State: CA County: ALAMEDA Place: OAKLAND
Zip: 94607
Location: Address/Street: 1396 5TH ST
: X/ST1: MANDELA PKWY
:
: DRILLING ON ENTIRE SITE BOUNDED BY 5TH ST, KIRKHAM ST, MANDELA PKWY
: AND BART LINE.

Delineated Method: WHITE PAINT
Work Type: VERTICAL BORING
Work For : CITADEL EHS
Permit: UNKNOWN Job/Work order:
1 Year: N Boring: Y Street/Sidewalk: N Vacuum: N Explosives: U

Lat/Long
Center Generated (NAD83): 37.804679/-122.294054 37.803996/-122.292273
: 37.803694/-122.294432 37.803011/-122.292651
Excavator Provided:

Map link:
https://newtin.usan.org/newtinweb/map_tkt.nap?TRG=B3w1zzywyx3n0pV-I

Comments:

AMENDMENT EDIT WORK FOR PER MIKE PENDERGRASS--11/18/2021 11:17:51 AM

Members:

CTYOAK CITY OF OAKLAND - CONSTRUCTIO JOHNNY NICKS 510-615-5567
JOHNNY NICKS 510-385-7475
EBWCMS EAST BAY WATER Name not available 510-287-0600
Emergency Dispatch 510-287-0600
LEVICAL LEVEL 3 COMMUNICATIONS - CALI Specialist 877-366-8344
CABLE PROTECTION MANAG C 877-366-8344
MCIWSA MCI WORLDCOM - CALIFORNIA NATIONAL FACILITY LOCATE 800-624-9675
NATIONAL FACILITY LOCATE 800-624-9675
PACBEL PACIFIC BELL Damage Prevention 510-645-2929
Damage Prevention 510-645-2929
PGEOK PGE DISTRIBUTION - OAKLAND John Hilderbrand 925-819-8483
EMERGENCY 800-743-5000
SFBART SF BART DISTR REAL ESTATE DEP DAVID BAUMAN 510-913-3900
BART Police 510-464-7000
TERDEX TERRADEX INC. Keith Hooper 650-227-3254
EMERGENCY 650-413-7553
TPXCO1 TPX COMMUNICATIONS I FRANCISCO BUSA JR 510-314-2146
STACY BABER 925-726-5974

FREE 811 Safe Digging Education and Training:

For FREE safe digging education and training, visit www.811pro.com. At 811 Pro, you can take our FREE virtual excavator safety course that covers all aspects of the 811 process, and state law requirements. Additionally, you can access and download other safe digging resources that will ensure you follow all the necessary steps and stay safe on your jobsite. Visit www.811pro.com for more information, and to sign up for our FREE virtual excavator training class.

Submit Your Request Online with E-Tickets:

85% of the contractors and excavators submitting tickets today are doing so online through our E-Tickets platform. It not only is saving them time and money, but allows us to keep our 811 phone lines open for damages, emergencies, curious homeowners, and new contractors who need help with the system. With your E-Ticket account you can submit any ticket you have, submit Renew or Re-mark requests, and have access to a stellar team of Web Operations Specialists who are available to help walk you through any questions or issues you might have. For more information on E-Tickets visit usanorth811.org and click the orange "Get Started" button on the top right corner of the page.

Legal Start Information:

You cannot begin digging until each facility owner has responded to your request and it has passed the legal start date and time on your request. If you wish to begin sooner than the legal date and time indicated on your ticket, you must contact each facility operator individually to request that they respond sooner. You must begin digging no later than 14 calendar days after your ticket was created. Phone numbers for the relevant facility operators are listed at the bottom of your ticket.

Missing a Response from a Utility Member Listed on Your Ticket?:

If the legal start date and time has passed and a facility operator has not marked an underground facility at the dig site, state law requires that you process a No Response notice to your ticket. This can be done online through the E-Ticket program at www.usanorth811.org or by calling 811.

Your Ticket Is Only Valid for 28 Calendar Days:

Your ticket will automatically expire 28 calendar days after the date of creation. If you need to continue digging beyond that date, state law requires that you renew your ticket before the expiration date. If the utility markings at your site are no longer clearly visible, you must request a re-mark. Re-mark requests must be submitted at least two working days, not counting the day of submission, before the expiration date of your ticket. You can renew or re-mark your ticket online through the E-Ticket program at usanorth811.org or by calling 811.

Maintaining Utility Markings and Requesting Re-Marks at your Worksite:

It is your responsibility to respect and protect the utility markings. If the markings become disturbed and are no longer clearly visible, state law requires that you stop excavation and have the area in which the markings have been disturbed re-marked by the appropriate facility operators. Re-mark requests must be submitted at least two working days, not counting the day of submission, before the expiration date of your ticket. You can submit a re-mark request on your ticket online through the E-Ticket program at usanorth811.org or by calling 811.

What Are Private Lines and How Do I Request Locates for Them?:

Utility members are only responsible to locate facilities that they own and maintain. Any other facilities, commonly called private lines, that were installed by a home builder, contractor, or the homeowner themselves, can be located by a private locator. Common private lines are water lines from the water meter to a home, irrigation or sprinkler lines, gas line feeding a back yard barbeque or fire pit, or an electrical line that powers a detached shed. You can find more information about private locators by visiting usanorth811.org or by searching online for "private utility locators."

Non-member Facility Owners:

The vast majority, but not all, owners of underground facilities are members of the USA North 811 nonprofit association of utility owners. Non-member entities include California and Nevada departments of transportation, railroads, military, tribal, and a few other entities. Non-pressurized sewer and drain line owners are also exempt from participating in California. Please review the list of utility owners on your ticket and contact any other affected entities directly.

Tolerance Zone and Hand Digging Requirements:

When digging near underground facilities, state law requires that you use only hand tools to expose lines in conflict with your excavation. Hand tools must be used within 24 inches of the outside edge of all utility markings. You may use vacuum equipment only if indicated on your ticket and with the approval of the facility operator whose line will be exposed.

Damaged, Nicked, Scraped, or Dented an Underground Facility?:

If you discover or cause damage, nicks, scrapes, dents, or any other disturbance to a marked or unmarked underground facility, state law requires that you immediately report the damage to the facility owner. You can contact the facility operator directly using the phone number listed at the bottom of your ticket, or you may contact USA North 811 to process a Damage/Exposed ticket. This can be done online through the E-Ticket program at usanorth811.org or by calling 811. You must also contact 911 if you discover or cause damage to a natural gas line, high-voltage power cable, high-pressure or hazardous materials pipeline, or any other high-priority facility. Make sure to evacuate the area before calling 911.

Additional Site Information:


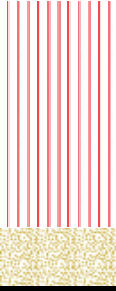
When submitting your locate ticket, you should have provided all necessary information about the site including special circumstances such as site access instructions, locked gate information, dogs in the yard or on the property, or any other information that would help assist the locators before arriving to your site. If you forgot to add information like this, you can submit a ticket amendment and add this necessary information to your existing locate ticket. You can submit an amendment online through the E-Ticket program at usanorth811.org or by calling 811.


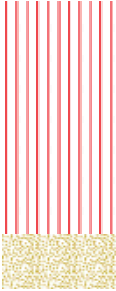
Delineating or Pre-marking Your Work Site:





State law requires that you mark out the dimensions of your project by delineating or pre-marking with something white, such as spray paint, chalk, flags, or stakes to show the utility companies where you plan to dig before you submit your locate ticket. If you have yet to pre-mark your dig site, please do so as soon as possible. You may start digging after the two working day minimum notice or the starting date and time you provided, whichever is later, has passed and every utility operator that was notified on your ticket has responded by either marking their underground facilities at the dig site, letting you know their facilities are not in conflict with your project, or making other arrangements with you.


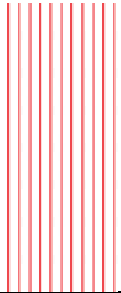
Appendix F


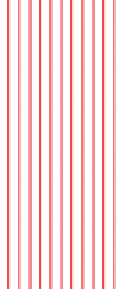
Boring Logs


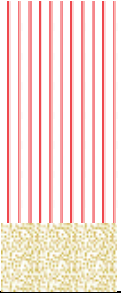
Boring I.D. B16		Project No. 0849.1003.0		Project Limited Phase II Site Assessment				
Location 1396 Fifth Street, Oakland, California					Logged By: TL			
Drilling Method Hand Auger		Driller Trinity Drilling			Checked By: MP			
Drilling Date 11/30/2021		Start Time 0810	Completion Time 0840	Backfilling #8 Bentonite	Grout 5'	Total Depth (feet) 5'		
Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description		Graphic Log
1	B16-1	0815	0.0	10YR 4/3	ML	Silt with Small Gravel, Moist, Loose, Brown		
2								
3	B16-3	0832	0.0	7.5YR 3/2	ML	Clayey Silt, Moist, Friable, Dark Brown		
4								
5	B16-5	0840	0.0	10YR 4/4	SP	Sand, Very Moist, Very Friable, Brown		
End Exploration at 5'								
Soil Vapor Probes set at 5' bgs								




Boring I.D. B17		Project No. 0849.1003.0		Project Limited Phase II Site Assessment					
Location 1396 Fifth Street, Oakland, California					Logged By: TL				
Drilling Method Hand Auger		Driller Trinity Drilling			Checked By: MP				
Drilling Date 11/30/2021		Start Time 0815		Completion Time 1005		Backfilling #8 Bentonite	Grout 5'	Total Depth (feet) 5'	Depth to Groundwater (feet) 4'
Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description			Graphic Log
1	B17-1	0822	0.0	10YR 4/3	ML	Silt w/ Small Gravel, Moist, Loose, Brown			
2									
3	B17-3	0956	0.0	10YR 4/4	ML	Silt, Dry, Loose, Dark Yellowish Brown			
4					▼				
5	B17-5	1003	0.0	10YR 5/2	SP	Sand, Fine, Wet, Very FriableFR, Grayish Brown			
End Exploration at 5'									
Soil Vapor Probes set at 3.5' bgs									



Boring I.D. B18		Project No. 0849.1003.0		Project Limited Phase II Site Assessment				
Location 1396 Fifth Street, Oakland, California					Logged By: TL			
Drilling Method Hand Auger		Driller Trinity Drilling			Checked By: MP			
Drilling Date 11/30/2021		Start Time 0935	Completion Time 1010	Backfilling #8 Bentonite	Grout 5'	Total Depth (feet) 5'		
Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description		Graphic Log
1	B18-1	0940	0.0	10YR 3/2	SP	Clayey Sand, Fine, Loose, Moist, Very Dark Grayish Brown		
2								
3	B18-3	0953	0.0	7.5YR 3/1	ML	Clayey Silt, Wet, Loose, Slightly Plastic, Very Dark Gray		
4								
5	B18-5	1008	0.0	10YR 3/2	SP	Sand, Fine, Wet, Loose, Very Dark Grayish Brown		
End Exploration at 5'								
Soil Vapor Probes set at 1.5' bgs								


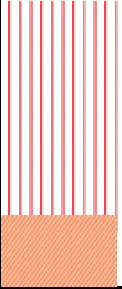
Boring I.D. B19		Project No. 0849.1003.0		Project Limited Phase II Site Assessment				
Location 1396 Fifth Street, Oakland, California					Logged By: TL			
Drilling Method Hand Auger		Driller Trinity Drilling			Checked By: MP			
Drilling Date 11/30/2021		Start Time 1140	Completion Time 1215	Backfilling #8 Bentonite	Grout 5'	Total Depth (feet) 5'		
Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description		Graphic Log
1	B19-1	1145	0.0	10YR 4/2	ML	Sandy Silt, Loose, Dry, Dark Grayish Brown		
2								
3	B19-3	1204	0.0	10YR 4/6	ML	Clayey Silt, Moist, Very Friable, Dark Yellowish Brown		
4								
5	B19-5	1209	0.0	10YR 5/4	ML	Clayey Silt, Wet, Slightly Plastic, Yellowish Brown		
End Exploration at 5'								
Soil Vapor Probes set at 3.5' bgs								


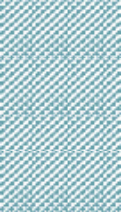

Boring I.D. B20		Project No. 0849.1003.0		Project Limited Phase II Site Assessment				
Location 1396 Fifth Street, Oakland, California					Logged By: TL			
Drilling Method Hand Auger		Driller Trinity Drilling			Checked By: MP			
Drilling Date 11/30/2021		Start Time 1220	Completion Time 1325	Backfilling #8 Bentonite	Grout 5'	Total Depth (feet) 5'		
Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description		Graphic Log
1	B20-1	1226	0.0	10YR 4/4	ML	Gravelly Silt, Dry, Loose, Dark Yellowish Brown		
2								
3	B20-3	1318	0.0	10YR 4/4	ML	Gravelly Silt, Dry, Loose, Dark Yellowish Brown		
4								
5	B20-5	1323	0.0	10YR 4/2	ML	Clayey Silt, Slightly Moist, Very Friable, Dark Grayish Brown		
End Exploration at 5'								
Soil Vapor Probes set at 5' bgs								


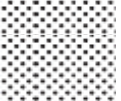
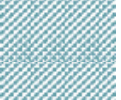

Boring I.D. B21		Project No. 0849.1003.0		Project Limited Phase II Site Assessment				
Location 1396 Fifth Street, Oakland, California					Logged By: TL			
Drilling Method Hand Auger		Driller Trinity Drilling			Checked By: MP			
Drilling Date 11/30/2021		Start Time 1245	Completion Time 1305	Backfilling #8 Bentonite	Grout 5'	Total Depth (feet) 5'		
Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log	
1	B21-1	1251	0.0	10YR 5/2	ML	Sandy Silt, Dry, Loose, Grayish Brown		
2								
3	B21-3	1256	0.0	10YR 5/2	ML	Sandy Silt, Dry, Loose, Grayish Brown		
4					▼			
5	B21-5	1300	0.0	10YR 4/2	SP	Sand, Fine, Wet, Loose, Dark Grayish Brown		
End Exploration at 5'								
Soil Vapor Probes set at 3' bgs								


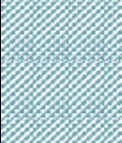
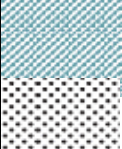
Boring I.D. B22		Project No. 0849.1003.0		Project Limited Phase II Site Assessment				
Location 1396 Fifth Street, Oakland, California					Logged By: TL			
Drilling Method Hand Auger		Driller Trinity Drilling			Checked By: MP			
Drilling Date 11/30/2021		Start Time 1350	Completion Time 1415	Backfilling #8 Bentonite	Grout 5'	Total Depth (feet) 5'		
Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log	
1	B22-1	1356	0.0	10YR 4/2	SP	Clayey Sand, Moist, Loose, Dark Grayish Brown		
2								
3	B22-3	1401	0.0	10YR 5/2	SM	Silty Sand, Wet, Loose, Grayish Brown		
4								
5	B22-5	1409	0.0	10YR 5/2	SM	Gravelly, Silty Sand, Wet, Loose, Grayish Brown		
End Exploration at 5'								
Soil Vapor Probes set at 1.5' bgs								

Boring I.D. B23		Project No. 0849.1003.0		Project Limited Phase II Site Assessment				
Location 1396 Fifth Street, Oakland, California					Logged By: TL			
Drilling Method Hand Auger		Driller Trinity Drilling			Checked By: MP			
Drilling Date 11/30/2021		Start Time 1555	Completion Time 1615	Backfilling #8 Bentonite	Grout 5'	Total Depth (feet) 5'		
Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description		Graphic Log
1	B23-1	1601	0.0	2.5Y 3/2	SW	Sand, Slightly Moist, Slightly Hard, Very Dark Grayish Brown		
2					▼			
3	B23-3	1607	0.0	2.5Y 4/1	SW	Sand, Wet, Dark Gray		
4								
5	B23-5	1611	0.0	2.5Y 4/1	SW	Gravelly Sand, Wet, Dark Gray		
End Exploration at 5'								
Soil Vapor Probes set at 1.5' bgs								

Boring I.D. B24		Project No. 0849.1003.0		Project Limited Phase II Site Assessment				
Location 1396 Fifth Street, Oakland, California					Logged By: TL			
Drilling Method Hand Auger		Driller Trinity Drilling			Checked By: MP			
Drilling Date 11/30/2021		Start Time 1620	Completion Time 1650	Backfilling #8 Bentonite	Grout 5'	Total Depth (feet) 5'		
Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description	Graphic Log	
1	B24-1	1626	0.0	2.5Y 4/3	ML	Silt with Gravel, Dry, Firm, Olive Brown		
2								
3	B24-3	1634	5.6	10YR 3/2	ML	Clayey Silt, Slightly Moist, Friable, Very Dark Grayish Brown		
4								
5	B24-5	1643	1.2	10YR 2/2	CL	Silty Clay, Moist, Friable, Very Dark Brown		
End Exploration at 5'								
Soil Vapor Probes set at 5' bgs								

Boring I.D. B25		Project No. 0849.1003.0		Project Limited Phase II Site Assessment				
Location 1396 Fifth Street, Oakland, California					Logged By: TL			
Drilling Method Hand Auger		Driller Trinity Drilling			Checked By: MP			
Drilling Date 11/30/2021		Start Time 1425	Completion Time 1440	Backfilling #8 Bentonite	Grout 5'	Total Depth (feet) 5'		
Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description		Graphic Log
1	B25-1	1428	0.0	10YR 3/2	SC	Clayey Sand, Slightly Moist, Loose, Very Dark Grayish Brown		
2								
3	B25-3	1432	0.0	10YR 3/2	SC	Clayey Sand, Slightly Moist, Loose, Very Dark Grayish Brown		
4					▼			
5	B25-5	1436	0.0	10YR 4/1	ML	Clayey Silt, Wet, Dark Gray		
End Exploration at 5'								
Soil Vapor Probes set at 3' bgs								

Boring I.D. B26		Project No. 0849.1003.0		Project Limited Phase II Site Assessment				
Location 1396 Fifth Street, Oakland, California					Logged By: TL			
Drilling Method Hand Auger		Driller Trinity Drilling			Checked By: MP			
Drilling Date 11/30/2021		Start Time 1525	Completion Time 1545	Backfilling #8 Bentonite	Grout 5'	Total Depth (feet) 5'	Depth to Groundwater (feet) N/A	
Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description		Graphic Log
1	B26-1	1530	0.0	10YR 4/2	SW	Sand with Gravel, Slightly Moist, Hard, Dark Grayish Brown		
2								
3	B26-3	1537	0.0	2.5Y 4/1	SC	Clayey Sand, Course, Moist, Loose, Dark Gray		
4								
5	B26-5	1543	0.0	2.5Y 4/1	SC	Clayey Sand, Course, Moist, Loose, Dark Gray		
End Exploration at 5'								
Soil Vapor Probes set at 5' bgs								

Boring I.D. B27		Project No. 0849.1003.0		Project Limited Phase II Site Assessment				
Location 1396 Fifth Street, Oakland, California					Logged By: TL			
Drilling Method Hand Auger		Driller Trinity Drilling			Checked By: MP			
Drilling Date 11/30/2021		Start Time 1455	Completion Time 1515	Backfilling #8 Bentonite	Grout 5'	Total Depth (feet) 5'		
Depth (feet)	Sample ID	Sample Time	PID (ppm)	Munsell Color	USCS	Soil Description		Graphic Log
1	B27-1	1458	0.0	10YR 3/2	SC	Clayey Sand, Slightly Moist, Loose, Very Dark Grayish Brown		
2								
3	B27-3	1503	0.0	10YR 3/2	SC	Clayey Sand, Slightly Moist, Loose, Very Dark Grayish Brown		
4								
5	B27-5	1509	0.0	10YR 4/1	SW	Gravelly Sand, Wet, Loose, Dark Gray		
End Exploration at 5'								
Soil Vapor Probes set at 2.5' bgs								

Appendix G

Citadel Field Notes

CITADEL EHS
PROJECT DOCUMENTATION



CLIENT	Michael's Development	PAGE	1 OF
PROJECT NUMBER	0849.1003.0	CITADEL REPRESENTATIVE	Tim Lambert
PROJECT NAME	Phase II Subsurface Investigation	CONTRACTOR	Trinity Drilling
PROJECT WORK AREA		SUPERVISOR	Mike Pendergrass
PROJECT LOCATION	1396 Fifth Street		

TIME	FIELD NOTES
0730	Citadel on site.
0740	Trinity + PC+E arrive on site. Discuss SOW, conduct safety meeting.
0800	Trinity begins setup on east side at B16 + B17.
0810	Begin hand augering B16 + B17. PC+E begins investigating utility lines on south side of site.
0845	B16 complete, begin setting probe.
0915	Probe and well box is set at B16. Soil is full of large 3"-4" gravel making augering difficult. PC+E gives permission to use drill rig outside of the area of concern at the eastern center portion of the site.
0920	B17 is abandoned due to large gravel. Second attempt is made 4' north. Original boring is grouted. Begin hand augering B18.
0945	B19 groundwater at 2.5'. Will collect soil to 5' and set probe above water level.
1010	Begin setting probes in B17 + B18.
1020	B17 + B18 probes and well boxes set.
1025	Trinity receives a call from PHA asking to stop work pending permit approval. Work halts. Awaiting permission to proceed.
1130	Trinity gets verbal approval to proceed.
1140	Begin hand augering B19.
1215	Begin hand augering B20.
1240	Begin drilling B21.

CITADEL REPRESENTATIVE:	Tim Lambert	DAY:	Tuesday
SIGNATURE:	<i>Tim Lambert</i>	DATE:	11-30-21

**CITADEL EHS
PROJECT DOCUMENTATION**



CLIENT	Michael's Development	PAGE	1 OF 2
PROJECT NUMBER	0849.1003.0	CITADEL REPRESENTATIVE	Tim Lambert / Mike Pendergrass
PROJECT NAME	Phase II Subsurface Investigation	CONTRACTOR	Trinity Drilling
PROJECT WORK AREA		SUPERVISOR	Mike Pendergrass
PROJECT LOCATION	1396 Fifth Street		

TIME	FIELD NOTES
0930	Citadel on site. Gain access to site and begin equipment setup.
0950	Setup at B26 with helium shroud, purge cannister, two helium detectors (under shroud, in sampling chain), and a 1-liter SUMMA sample cannister. Perform shut-in test on sample cannister.
1000	Apply helium and begin purge. Helium maintained at 20% - 40% volume in shroud.
1005	Purge begins to pull water due to flooded probe. Abort sampling at B26. Proceed to B27.
1025	Setup at B27 complete. Remaining locations are split between Mike P. and Tim L. Mike continues sampling at B27. Tim proceeds to B25.
1040	Gather supplies and begin setup at B25.
1104	Begin purge. Monitor helium levels. Perform shut-in test.
1112	Begin sampling.
1120	B25 complete. Proceed to B22.
1138	Begin purge and standard protocols.
1145	Begin sampling.
1151	B22 complete. Proceed to B21, begin setup.
1215	Begin purge and standard protocols.
1220	B21 begins pulling water. Abort sampling. Proceed to B16.
1240	Begin purge at B16. Standard protocol.
1243	B16 begins pulling water. Abort sampling. Proceed to B17 and begin setup.
1301	Begin purge at B17. Standard protocol used.

CITADEL REPRESENTATIVE:	Tim Lambert	DAY:	
SIGNATURE:	<i>Tim Lambert</i>	DATE:	12-2-21

**CITADEL EHS
PROJECT DOCUMENTATION**



CLIENT	Michael's Development	PAGE	2 OF 2
PROJECT NUMBER	0849.1003.0	CITADEL REPRESENTATIVE	Tim Lambert
PROJECT NAME	Phase II Subsurface Investigation	CONTRACTOR	Trinity Drilling
PROJECT WORK AREA		SUPERVISOR	Mike Pendergrass
PROJECT LOCATION	1396 Fifth Street		

TIME	FIELD NOTES
1311	Purge complete. Begin sampling at B17 B17 with duplicate canisters using inline T-fitting.
1335	Sampling at B17 B17 is complete. Begin clean up. Proceed to B18 and begin setup.
1358	Begin purge and standard protocols.
1409	Begin sampling.
1417	Sampling at B18 complete. All probes have been checked and sampled where possible. Due to flooded probes, one duplicate sample is still needed.
1425	Begin setup at B18 to collect duplicate.
1435	In line helium detector is detecting helium directly from the probe at a concentration of over 2% vol. Fearing possible contamination, sampling is moved to B27 to collect duplicate.
1455	Helium is also detected in B27 at a similar volume. It is unknown how this could occur as further purging does not seem to lower the level. Purging continues.
1510	Helium is still detected regardless of extended purging. Sampling begins of B27-5VD, but unexplained helium levels should be noted.
1518	Sampling complete. Begin clean up.
1540	Citadel leaves site to deliver samples to lab.
1552	Samples delivered to Enthalpy.

CITADEL REPRESENTATIVE:	Tim Lambert	DAY:	
SIGNATURE:	<i>Tim Lambert</i>	DATE:	12-2-21

CLIENT	Michael's Development	PAGE	1 OF 3
PROJECT NUMBER	0849.1003.0	CITADEL REPRESENTATIVE	Mike Pendergrass
PROJECT NAME	Phase II Subsurface Investigation	CONTRACTOR	Trinity Drilling
PROJECT WORK AREA		SUPERVISOR	Mike Pendergrass
PROJECT LOCATION	1396 Fifth Street		

TIME	FIELD NOTES
0930	Arrive onsite w/ Tim Lambert. Check in w/ Job Training site to get the gate unlocked. Unloaded the equipment and discussed the plan for the day. The laboratory supplied all sampling equipment and two helium shroud setups along with several helium canisters, helium gauges, purge summe canisters and manifold hardware.
1000	Setup on B26 with helium shroud. Began purging the vapor probe and immediately started drawing water. No sample from B26.
1015	Split up the remaining wells and started sampling. Setup on B27 which has a vapor probe at 2.5'. Setup helium shroud and maintained helium between 20 and 40% beneath the shroud. Calculate purging time based on 150 ml per minute flow rate. Performed
1047	Complete shut in test. Everything checked out.
1047	Completed purging and started sample collection.
1055	Completed sampling and moved to B24. Setup on B24, performed purging with helium shroud and performed shut in test. OK.
1119	Begin sampling B24. Very low flow. Canister and down hole vacuum gauges converged at ~16 mm H ₂ O Hg. after sampling for 17 minutes.
1136	Completed sampling after canister and downhole vacuums equalized at 16" Hg. Moved to B23 and setup.

CITADEL REPRESENTATIVE:	Mike Pendergrass	DAY:	Thursday
SIGNATURE:	Mike Pendergrass	DATE:	Dec 2, 2021

CLIENT	Michael's Development	PAGE	2 OF 3
PROJECT NUMBER	0849.1003.0	CITADEL REPRESENTATIVE	Mike Pendergrass
PROJECT NAME	Phase II Subsurface Investigation	CONTRACTOR	Trinity Drilling
PROJECT WORK AREA		SUPERVISOR	Mike Pendergrass
PROJECT LOCATION	1396 Fifth Street		

TIME	FIELD NOTES
1145	Setup on B23. Will collect a duplicate sample at this location. Setup shroud, duplicate sample manifold, and perform shut in test.
1222	Complete purging up incident and begin collecting sample. Shortly after starting, water was drawn from the probe. Attempt to allow water to drop and continue sampling, but not successful. No samples from B23. Move to B20.
1305	Setup on B20. Will again attempt to collect duplicate sample. Setup shroud and perform shut in test and start purging. There isn't a flow gauge on the purge canister, monitor vacuum to verify vapor flow. Gauge is not moving and also having trouble maintaining helium concentrations. Change helium bottles twice and finally able to maintain helium concentrations. Still appears to be no flow on the purge canister. Change the purge canister and now appears to have vapor flow and complete purging.
1330	Prepare to begin sampling and notice that both sample canisters have 0" Hg vacuum. There may have been a bad connection when changing out the purge canister. Switch from two canisters to only one. And begin sampling.
1342	Begin sampling B20. Started drawing some water, but was able to set the sample by repeatedly shutting the valve and flicking to hose to allow the water to run down that tube.
CITADEL REPRESENTATIVE: Mike Pendergrass	
DAY: Thursday	
SIGNATURE: Mike Pendergrass	
DATE: Dec 2, 2021	

Appendix H

Laboratory Reports and Chain of Custody



Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

Lab Job Number: 454317
Report Level: II
Report Date: 12/08/2021

Analytical Report *prepared for:*

Mike Pendergrass
Citadel EHS
2 Peters Canyon Road
Irvine, CA 92606

Location: 1396 Fifth Street, Oakland, CA

Authorized for release by:

Jim Lin, Service Center Manager
Jim.lin@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105, CDC ELITE
Member

Sample Summary

Mike Pendergrass Citadel EHS 2 Peters Canyon Road Irvine, CA 92606	Lab Job #: 454317 Location: 1396 Fifth Street, Oakland, CA Date Received: 11/30/21
---	--

Sample ID	Lab ID	Collected	Matrix
B16-1	454317-001	11/30/21 08:15	Soil
B16-3	454317-002	11/30/21 08:32	Soil
B16-5	454317-003	11/30/21 08:40	Soil
B17-1	454317-004	11/30/21 08:22	Soil
B17-3	454317-005	11/30/21 09:56	Soil
B17-5	454317-006	11/30/21 10:03	Soil
B18-1	454317-007	11/30/21 09:40	Soil
B18-3	454317-008	11/30/21 09:53	Soil
B18-5	454317-009	11/30/21 10:08	Soil
B19-1	454317-010	11/30/21 11:45	Soil
B19-3	454317-011	11/30/21 12:04	Soil
B19-5	454317-012	11/30/21 12:09	Soil
B20-1	454317-013	11/30/21 12:26	Soil
B20-3	454317-014	11/30/21 13:18	Soil
B20-5	454317-015	11/30/21 13:23	Soil
B21-1	454317-016	11/30/21 12:51	Soil
B21-3	454317-017	11/30/21 12:56	Soil
B21-5	454317-018	11/30/21 13:00	Soil
B22-1	454317-019	11/30/21 13:56	Soil
B22-3	454317-020	11/30/21 14:01	Soil
B22-3D	454317-021	11/30/21 14:01	Soil
B22-5	454317-022	11/30/21 14:09	Soil
B25-1	454317-023	11/30/21 14:28	Soil
B25-3	454317-024	11/30/21 14:32	Soil
B25-5	454317-025	11/30/21 14:36	Soil
B27-1	454317-026	11/30/21 14:58	Soil
B27-1D	454317-027	11/30/21 14:58	Soil
B27-3	454317-028	11/30/21 15:03	Soil

Sample Summary

Mike Pendergrass	Lab Job #:	454317
Citadel EHS	Location:	1396 Fifth Street, Oakland, CA
2 Peters Canyon Road	Date Received:	11/30/21
Irvine, CA 92606		

Sample ID	Lab ID	Collected	Matrix
B27-5	454317-029	11/30/21 15:09	Soil
B26-1	454317-030	11/30/21 15:30	Soil
B26-3	454317-031	11/30/21 15:37	Soil
B26-5	454317-032	11/30/21 15:43	Soil
B23-1	454317-033	11/30/21 16:01	Soil
B23-3	454317-034	11/30/21 16:07	Soil
B23-5	454317-035	11/30/21 16:11	Soil
B24-1	454317-036	11/30/21 16:26	Soil
B24-3	454317-037	11/30/21 16:34	Soil
B24-5	454317-038	11/30/21 16:43	Soil

Case Narrative

Citadel EHS
2 Peters Canyon Road
Irvine, CA 92606
Mike Pendergrass

Lab Job Number: 454317
Location: 1396 Fifth Street, Oakland, CA
Date Received: 11/30/21

This data package contains sample and QC results for twenty soil samples, requested for the above referenced project on 11/30/21. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):

No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015M):

ORO C28-C44 was detected between the MDL and the RL in the method blank for batch 279190. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):

Low surrogate recovery was observed for dibromofluoromethane in B22-5 (lab # 454317-022). No other analytical problems were encountered.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):

Many samples were diluted due to the dark color of the sample extracts. No other analytical problems were encountered.

PCBs (EPA 8082):

No analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):

Low recoveries were observed for antimony in the MS/MSD of B16-1 (lab # 454317-001); the LCS was within limits, and the associated RPD was within limits. High recovery was observed for barium in the MS of B16-1 (lab # 454317-001); the LCS was within limits, and the associated RPD was within limits. Zinc was detected between the MDL and the RL in the method blank for batch 279144; this analyte was detected in samples at a level at least 10 times that of the blank. No other analytical problems were encountered.



Chain of Custody Record
 Lab No: 454317
 Page: 1 of 4

Turn Around Time (rush by advanced notice only)
 Standard: X
 5 Day:
 3 Day:
 2 Day:
 1 Day:
 Custom TAT:
 Sample Receipt Temp: (lab use only)

Enthalpy Analytical - Orange
 931 W. Barkley Avenue, Orange, CA 92868
 Phone 714-771-6900

Matrix: A = Air S = Soil/Solid
 W = Water DW = Drinking Water SD = Sediment
 PP = Pure Product SEA = Sea Water
 SW = Swab T = Tissue WP = Wipe O = Other

Preservatives:
 1 = Na₂S₂O₃ 2 = HCl 3 = HNO₃
 4 = H₂SO₄ 5 = NaOH 6 = Other

CUSTOMER INFORMATION		PROJECT INFORMATION		Analysis Request					Test Instructions / Comments
Company:	Citadel EHS	Name:	1396 Fifth Street	TPH - EPA 8015B	VOCs and Oxygenates - EPA 8260B	PAHs - EPA 8270 SIM	PCBs - EPA 8082	Title 22 Metals - EPA 6010B/7471A	Hold
Report To:	Mike Pendergrass	Number:							
Email:	mpendergrass@citadelehs.com	P.O. #:	0849.1003						
Address:	2 Peters Canyon, Irvine, CA	Address:	1396 Fifth Street, Oakland, CA						
Phone:	818-296-9405	Global ID:	T10000017095						
Fax:		Sampled By:							

Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	TPH - EPA 8015B	VOCs and Oxygenates - EPA 8260B	PAHs - EPA 8270 SIM	PCBs - EPA 8082	Title 22 Metals - EPA 6010B/7471A
1 B16-1	11-30-21	0915	S	1x9oz	NA					
2 B16-3		0832	S		NA					
3 B16-5		0840	S		NA					
4 B17-1		0822	S		NA					
5 B17-3		0956	S		NA					
6 B17-5		1003	S		NA					
7 B18-1		0940	S		NA					
8 B18-3		0953	S		NA					
9 B18-5		1008	S		NA					
10 B19-1		1145	S		NA					X

	Signature	Print Name	Company / Title	Date / Time
¹ Relinquished By:	<i>Tim Lambert</i>	Tim Lambert	Citadel EHS	11-30-21/1740
¹ Received By:	<i>Jessica Silberman</i>	Jessica Silberman	Enthalpy	11/30/21 1740
² Relinquished By:	<i>Marcus Yip</i>	Marcus Yip	BA	12/1/21 11:58
² Received By:	<i>[Signature]</i>	[Signature]	[Signature]	12/2/21 0800
³ Relinquished By:				
³ Received By:				



Enthalpy Analytical - Orange
 931 W. Barkley Avenue, Orange, CA 92868
 Phone 714-771-6900

Chain of Custody Record
 Lab No: 454317
 Page: 2 of 4

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Days:	
2 Day:		1 Day:		Custom TAT:	

Matrix: A = Air S = Soil/Solid
 W = Water DW = Drinking Water SD = Sediment
 PP = Pure Product SEA = Sea Water
 SW = Swab T = Tissue WP = Wipe O = Other

Preservatives:
 1 = Na₂S₂O₃ 2 = HCl 3 = HNO₃
 4 = H₂SO₄ 5 = NaOH 6 = Other

Sample Receipt Temp:
 (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION		Analysis Request						Test Instructions / Comments
Company:	Citadel EHS	Name:	1396 Fifth Street	TPH - EPA 8015B	VOCs and Oxygenates - EPA 8260B	PAHS - EPA 8270 SIM	PCBS - EPA 8082	Title 22 Metals - EPA 6010B/7471A	Hold	
Report To:	Mike Pendergrass	Number:								
Email:	<u>mpendergrass@citadelehs.com</u>	P.O. #:	0849.1003							
Address:	2 Peters Canyon, Irvine, CA	Address:	1396 Fifth Street, Oakland, CA							
Phone:	818-296-9405	Global ID:	T10000017095							
Fax:		Sampled By:								

Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	TPH - EPA 8015B	VOCs and Oxygenates - EPA 8260B	PAHS - EPA 8270 SIM	PCBS - EPA 8082	Title 22 Metals - EPA 6010B/7471A	Hold
11 B19-3	11-30-21	1204	S	1x 9oz.	NA						X
12 B19-5		1209	S		NA						X
13 B20-1		1226	S		NA						X
14 B20-3		1318	S		NA						X
15 B20-5		1323	S		NA						X
16 B21-1		1251	S		NA						X
17 B21-3		1256	S		NA						X
18 B21-5		1300	S		NA						X
19 B22-1		1356	S		NA						
20 B22-3		1401	S		NA						

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	<i>Tim Lambert</i>	Tim Lambert	Citadel EHS	11-30-21/1740
1 Received By:	<i>Jessica Silberman</i>	Jessica Silberman	Enthalpy	11/30/21 1740
2 Relinquished By:	<i>Maxwell Top</i>	Maxwell Top	EA	12/1/21 1158
2 Received By:	<i>PODWA</i>	PODWA	EA	12/2/21 0854
3 Relinquished By:				
3 Received By:				



ENTHALPY ANALYTICAL

Enthalpy Analytical - Orange

931 W. Barkley Avenue, Orange, CA 92868

Phone 714-771-6900

Chain of Custody Record

Lab No: 454317

Page: 3 of 4

Turn Around Time (rush by advance notice only)

Standard:	X	5 Day:		3 L...
2 Day:		1 Day:		Custom TAT:

Matrix: A = Air S = Soil/Solid
 W = Water DW = Drinking Water SD = Sediment
 PP = Pure Product SEA = Sea Water
 SW = Swab T = Tissue WP = Wipe O = Other

Preservatives:
 1 = Na₂S₂O₃ 2 = HCl 3 = HNO₃
 4 = H₂SO₄ 5 = NaOH 6 = Other

Sample Receipt Temp:

(lab use only)

CUSTOMER INFORMATION

PROJECT INFORMATION

Analysis Request

Test Instructions / Comments

Company:	Citadel EHS	Name:	1396 Fifth Street
Report To:	Mike Pendergrass	Number:	
Email:	mpendergrass@citadelehs.com	P.O. #:	0849.1003
Address:	2 Peters Canyon, Irvine, CA	Address:	1396 Fifth Street, Oakland, CA
Phone:	818-296-9405	Global ID:	T10000017095
Fax:		Sampled By:	

TPH - EPA 8015B	VOCs and Oxygenates - EPA 8260B	PAHs - EPA 8270 SIM	PCBs - EPA 8082	Title 22 Metals - EPA 6010B/7471A																
-----------------	---------------------------------	---------------------	-----------------	-----------------------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.
21 B22-3D	11-30-21	1401	S	1x 9oz.	NA
22 B22-5		1409	S		NA
23 B25-1		1428	S		NA
24 B25-3		1432	S		NA
25 B25-5		1436	S		NA
26 B27-1		1458	S		NA
27 B27-1D		1458	S		NA
28 B27-3		1503	S		NA
29 B27-5		1509	S		NA
30 B26-1		1530	S		NA

	Signature	Print Name	Company / Title	Date / Time
¹ Relinquished By:	<i>Tim Lambert</i>	Tim Lambert	Citadel EHS	11-30-21 / 1740
¹ Received By:	<i>Jessica Silbermann</i>	Jessica Silbermann	Enthalpy	11/30/21 1740
² Relinquished By:	<i>Moncerill Yip</i>	Moncerill Yip	EA	12/1/21 1658
² Received By:	<i>En</i>	En	En	12/2/21 0950
³ Relinquished By:				
³ Received By:				



ENTHALPY ANALYTICAL

Chain of Custody Record
 Lab No: 454317
 Page: 4 of 4

Turn Around Time (rush by advanced notice only)
 Standard: X
 5 Day:
 3 L...
 2 Day:
 1 Day:
 Custom TAT:

Enthalpy Analytical - Orange
 931 W. Barkley Avenue, Orange, CA 92868
 Phone 714-771-6900

Matrix: A = Air S = Soil/Solid
 W = Water DW = Drinking Water SD = Sediment
 PP = Pure Product SEA = Sea Water
 SW = Swab T = Tissue WP = Wipe O = Other

Preservatives:
 1 = Na₂S₂O₃ 2 = HCl 3 = HNO₃
 4 = H₂SO₄ 5 = NaOH 6 = Other

Sample Receipt Temp:
 (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION		Analysis Request						Test Instructions / Comments
Company:	Citadel EHS	Name:	1396 Fifth Street	TPH - EPA 8015B	VOCs and Oxygenates - EPA 8260B	PAHs - EPA 8270 SIM	PCBs - EPA 8082	Title 22 Metals - EPA 6010B/7471A	Hold	
Report To:	Mike Pendergrass	Number:								
Email:	mpendergrass@citadelehs.com	P.O. #:	0849.1003							
Address:	2 Peters Canyon, Irvine, CA	Address:	1396 Fifth Street, Oakland, CA							
Phone:	818-296-9405	Global ID:	T10000017095							
Fax:		Sampled By:								

Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	TPH - EPA 8015B	VOCs and Oxygenates - EPA 8260B	PAHs - EPA 8270 SIM	PCBs - EPA 8082	Title 22 Metals - EPA 6010B/7471A	Test Instructions / Comments
31	11-30-21	1537	S	1x 9oz.	NA						X
32		1543	S		NA						X
33		1601	S		NA						X
34		1607	S		NA						X
35		1611	S		NA						X
36		1626	S		NA						X
37		1634	S		NA						X
38		1643	S		NA						X
39			S		NA						
40			S		NA						

	Signature	Print Name	Company / Title	Date / Time
¹ Relinquished By:		Tim Lambert	Citadel EHS	11-30-21 / 1740
¹ Received By:		Jessica Silberman	Enthalpy	11/30/21 1740
² Relinquished By:		Macevill Yip	EA	12/1/21 1158
² Received By:		Fogua	EA	12/2/21 0850
³ Relinquished By:				
³ Received By:				

SAMPLE RECEIPT CHECKLIST

454317 (44)



Section 1: Login # 454316

Client: Citadel EMS

Date Received: 11/30/21

Project: _____

Section 2: Shipping info (if applicable)

Are custody seals present? No, or Yes. If yes, where? on cooler, on samples, on package

Date: _____ How many _____ Signature, Initials, None

Were custody seals intact upon arrival? Yes No N/A

Samples received in a cooler? Yes, how many? 1 No (skip Section 3 below)

If no cooler Sample Temp (°C): _____ using IR Gun # B, or C

Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 11/30/21 By (print) MAC (sign) _____

Section 3:

Important: Notify PM if temperature exceeds 6°C or arrive frozen.

Packing in cooler: (if other, describe) _____

Bubble Wrap, Foam blocks, Bags, None, Cloth material, Cardboard, Styrofoam, Paper towels

Samples received on ice directly from the field. Cooling process had begun

Type of ice used: Wet, Blue/Gel, None Temperature blank(s) included? Yes, No

Temperature measured using Thermometer ID: _____, or IR Gun # B C

Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:

	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	/		
Were Method 5035 sampling containers present?		/	
If YES, what time were they transferred to freezer? _____			
Did all bottles arrive unbroken/unopened?	/		
Are there any missing / extra samples?		/	
Are samples in the appropriate containers for indicated tests?	/		
Are sample labels present, in good condition and complete?	/		
Does the container count match the COC?	/		
Do the sample labels agree with custody papers?	/		
Was sufficient amount of sample sent for tests requested?	/		
Did you change the hold time in LIMS for unpreserved VOAs?			/
Did you change the hold time in LIMS for preserved terracores?			/
Are bubbles > 6mm present in VOA samples?			/
Was the client contacted concerning this sample delivery?		/	
If YES, who was called? _____ By _____ Date: _____			

Section 5:

	YES	NO	N/A
Are the samples appropriately preserved? (if N/A, skip the rest of section 5)			
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check? pH strip lot# _____, pH strip lot# _____, pH strip lot# _____			
Preservative added:			
<input type="checkbox"/> H2SO4 lot# _____ added to samples _____ on/at _____			
<input type="checkbox"/> HCL lot# _____ added to samples _____ on/at _____			
<input type="checkbox"/> HNO3 lot# _____ added to samples _____ on/at _____			
<input type="checkbox"/> NaOH lot# _____ added to samples _____ on/at _____			

Section 6:

Explanations/Comments: _____

Date Logged in 12/1/21

By (print) MAG (sign) _____

Date Labeled 12/1/21

By (print) MY G. MAG (sign) _____



ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1
 Client: CITADEL EHS Project: 139C FIFTH STREET
 Date Received: 12/2/21 Sampler's Name Present: Yes No


Section 2
 Sample(s) received in a cooler? Yes, How many? 1 No (skip section 2) Sample Temp (°C) (No Cooler) : _____
 Sample Temp (°C), One from each cooler: #1: 3-3 #2: _____ #3: _____ #4: _____
(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)
 Shipping Information: GREYHOUND

Section 3
 Was the cooler packed with: Ice Ice Packs Bubble Wrap Styrofoam
 Paper None Other _____
 Cooler Temp (°C): #1: 1.0 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	/		
Are sample IDs present?	/		
Are sampling dates & times present?	/		
Is a relinquished signature present?	/		
Are the tests required clearly indicated on the COC?	/		
Are custody seals present?		/	
If custody seals are present, were they intact?			/
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			/
Did all samples arrive intact? If no, indicate in Section 4 below.	/		
Did all bottle labels agree with COC? (ID, dates and times)	/		
Were the samples collected in the correct containers for the required tests?	/		
Are the containers labeled with the correct preservatives?			/
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			/
Was a sufficient amount of sample submitted for the requested tests?	/		

Section 5 Explanations/Comments

Section 6
 For discrepancies, how was the Project Manager notified? Verbal PM Initials: _____ Date/Time: _____
 Email (email sent to/on): _____ / _____
 Project Manager's response:

Completed By:  Date: 12/2/21



**PACKAGE
EXPRESS**



A8647422B

LBLBC-GPX (REV 11/19)

1.0 / 3.3

Analysis Results for 454317

Mike Pendergrass
Citadel EHS
2 Peters Canyon Road
Irvine, CA 92606

Lab Job #: 454317
Location: 1396 Fifth Street, Oakland, CA
Date Received: 11/30/21

Sample ID: B16-1	Lab ID: 454317-001	Collected: 11/30/21 08:15
Matrix: Soil		

454317-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	ND		mg/Kg	2.8	1.5	0.93	279144	12/02/21	12/06/21	KLN
Arsenic	4.5		mg/Kg	0.93	0.62	0.93	279144	12/02/21	12/06/21	KLN
Barium	190		mg/Kg	0.93	0.093	0.93	279144	12/02/21	12/06/21	KLN
Beryllium	0.27	J	mg/Kg	0.46	0.10	0.93	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.46	0.069	0.93	279144	12/02/21	12/06/21	KLN
Chromium	41		mg/Kg	0.93	0.19	0.93	279144	12/02/21	12/06/21	KLN
Cobalt	8.0		mg/Kg	0.46	0.063	0.93	279144	12/02/21	12/06/21	KLN
Copper	27		mg/Kg	0.93	0.56	0.93	279144	12/02/21	12/03/21	KLN
Lead	20		mg/Kg	0.93	0.78	0.93	279144	12/02/21	12/06/21	KLN
Molybdenum	0.67	J	mg/Kg	0.93	0.55	0.93	279144	12/02/21	12/06/21	KLN
Nickel	46		mg/Kg	0.93	0.24	0.93	279144	12/02/21	12/06/21	KLN
Selenium	ND		mg/Kg	2.8	0.37	0.93	279144	12/02/21	12/06/21	KLN
Silver	ND		mg/Kg	0.46	0.15	0.93	279144	12/02/21	12/03/21	KLN
Thallium	0.69	J	mg/Kg	2.8	0.54	0.93	279144	12/02/21	12/06/21	KLN
Vanadium	59		mg/Kg	0.93	0.40	0.93	279144	12/02/21	12/03/21	KLN
Zinc	58		mg/Kg	4.6	0.69	0.93	279144	12/02/21	12/06/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	0.14	J	mg/Kg	0.16	0.045	1.2	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/02/21	12/02/21	EMW
Surrogates	Limits									
Bromofluorobenzene (FID)	89%		%REC	60-140		1	279137	12/02/21	12/02/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	36		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	110		mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates	Limits									
n-Triacontane	112%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	18	J	ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW

Surrogates	Limits										
Decachlorobiphenyl (PCB)	63%		%REC	19-121			1	279164	12/03/21	12/04/21	TJW

Method: EPA 8260B
 Prep Method: EPA 5030B

3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/02/21	12/02/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/02/21	12/02/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Acetone	ND		ug/Kg	100	25	1	279153	12/02/21	12/02/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279153	12/02/21	12/02/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279153	12/02/21	12/02/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/02/21	12/02/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/02/21	12/02/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO

Analysis Results for 454317

454317-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279153	12/02/21	12/02/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/02/21	12/02/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/02/21	12/02/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/02/21	12/02/21	RAO
Surrogates				Limits						
Dibromofluoromethane	88%		%REC	70-145	1.3	1	279153	12/02/21	12/02/21	RAO
1,2-Dichloroethane-d4	102%		%REC	70-145		1	279153	12/02/21	12/02/21	RAO
Toluene-d8	98%		%REC	70-145		1	279153	12/02/21	12/02/21	RAO
Bromofluorobenzene	100%		%REC	70-145	1.5	1	279153	12/02/21	12/02/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	50	10	5	279158	12/03/21	12/04/21	TJW
2-Methylnaphthalene	ND		ug/Kg	50	16	5	279158	12/03/21	12/04/21	TJW
Naphthalene	ND		ug/Kg	50	16	5	279158	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Acenaphthylene	ND		ug/Kg	50	36	5	279158	12/03/21	12/04/21	TJW
Acenaphthene	ND		ug/Kg	50	13	5	279158	12/03/21	12/04/21	TJW
Fluorene	ND		ug/Kg	50	11	5	279158	12/03/21	12/04/21	TJW
Phenanthrene	21	J	ug/Kg	50	16	5	279158	12/03/21	12/04/21	TJW
Anthracene	ND		ug/Kg	50	13	5	279158	12/03/21	12/04/21	TJW
Fluoranthene	45	J	ug/Kg	50	12	5	279158	12/03/21	12/04/21	TJW
Pyrene	47	J	ug/Kg	50	11	5	279158	12/03/21	12/04/21	TJW
Benzo(a)anthracene	ND		ug/Kg	50	21	5	279158	12/03/21	12/04/21	TJW
Chrysene	30	J	ug/Kg	50	18	5	279158	12/03/21	12/04/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	50	27	5	279158	12/03/21	12/04/21	TJW
Benzo(k)fluoranthene	20	J	ug/Kg	50	13	5	279158	12/03/21	12/04/21	TJW
Benzo(a)pyrene	24	J	ug/Kg	50	18	5	279158	12/03/21	12/04/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	50	21	5	279158	12/03/21	12/04/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	50	22	5	279158	12/03/21	12/04/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	50	18	5	279158	12/03/21	12/04/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	72%		%REC	27-125		5	279158	12/03/21	12/04/21	TJW
2-Fluorobiphenyl	72%		%REC	30-120		5	279158	12/03/21	12/04/21	TJW
Terphenyl-d14	85%		%REC	33-155		5	279158	12/03/21	12/04/21	TJW

Analysis Results for 454317

Sample ID: B16-3	Lab ID: 454317-002	Collected: 11/30/21 08:32
Matrix: Soil		

454317-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	ND		mg/Kg	2.5	1.3	0.83	279144	12/02/21	12/06/21	KLN
Arsenic	2.3		mg/Kg	0.83	0.56	0.83	279144	12/02/21	12/06/21	KLN
Barium	67		mg/Kg	0.83	0.083	0.83	279144	12/02/21	12/06/21	KLN
Beryllium	0.15	J	mg/Kg	0.42	0.092	0.83	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.42	0.063	0.83	279144	12/02/21	12/06/21	KLN
Chromium	32		mg/Kg	0.83	0.18	0.83	279144	12/02/21	12/06/21	KLN
Cobalt	5.3		mg/Kg	0.42	0.057	0.83	279144	12/02/21	12/06/21	KLN
Copper	8.3		mg/Kg	0.83	0.50	0.83	279144	12/02/21	12/03/21	KLN
Lead	6.9		mg/Kg	0.83	0.70	0.83	279144	12/02/21	12/06/21	KLN
Molybdenum	ND		mg/Kg	0.83	0.49	0.83	279144	12/02/21	12/06/21	KLN
Nickel	27		mg/Kg	0.83	0.22	0.83	279144	12/02/21	12/06/21	KLN
Selenium	ND		mg/Kg	2.5	0.33	0.83	279144	12/02/21	12/06/21	KLN
Silver	ND		mg/Kg	0.42	0.13	0.83	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	2.5	0.48	0.83	279144	12/02/21	12/06/21	KLN
Vanadium	24		mg/Kg	0.83	0.36	0.83	279144	12/02/21	12/03/21	KLN
Zinc	26		mg/Kg	4.2	0.63	0.83	279144	12/02/21	12/06/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.17	0.047	1.2	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/02/21	12/02/21	EMW
Surrogates Limits										
Bromofluorobenzene (FID)	88%		%REC	60-140		1	279137	12/02/21	12/02/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	3.0	J	mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	5.6	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates Limits										
n-Triacontane	100%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits							
Decachlorobiphenyl (PCB)	58%		%REC	19-121			1 279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/02/21	12/02/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/02/21	12/02/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Acetone	ND		ug/Kg	100	25	1	279153	12/02/21	12/02/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279153	12/02/21	12/02/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279153	12/02/21	12/02/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/02/21	12/02/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/02/21	12/02/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO

Analysis Results for 454317

454317-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279153	12/02/21	12/02/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/02/21	12/02/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/02/21	12/02/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/02/21	12/02/21	RAO
Surrogates				Limits						
Dibromofluoromethane	97%		%REC	70-145	1.3	1	279153	12/02/21	12/02/21	RAO
1,2-Dichloroethane-d4	104%		%REC	70-145		1	279153	12/02/21	12/02/21	RAO
Toluene-d8	100%		%REC	70-145		1	279153	12/02/21	12/02/21	RAO
Bromofluorobenzene	102%		%REC	70-145	1.5	1	279153	12/02/21	12/02/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	10	2.1	1	279158	12/03/21	12/04/21	TJW
2-Methylnaphthalene	ND		ug/Kg	10	3.2	1	279158	12/03/21	12/04/21	TJW
Naphthalene	ND		ug/Kg	10	3.2	1	279158	12/03/21	12/04/21	TJW
Acenaphthylene	ND		ug/Kg	10	7.1	1	279158	12/03/21	12/04/21	TJW
Acenaphthene	ND		ug/Kg	10	2.5	1	279158	12/03/21	12/04/21	TJW
Fluorene	ND		ug/Kg	10	2.1	1	279158	12/03/21	12/04/21	TJW
Phenanthrene	ND		ug/Kg	10	3.2	1	279158	12/03/21	12/04/21	TJW
Anthracene	ND		ug/Kg	10	2.5	1	279158	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	2.5	J	ug/Kg	10	2.5	1	279158	12/03/21	12/04/21	TJW
Pyrene	3.0	J	ug/Kg	10	2.1	1	279158	12/03/21	12/04/21	TJW
Benzo(a)anthracene	ND		ug/Kg	10	4.3	1	279158	12/03/21	12/04/21	TJW
Chrysene	ND		ug/Kg	10	3.6	1	279158	12/03/21	12/04/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	10	5.4	1	279158	12/03/21	12/04/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	10	2.5	1	279158	12/03/21	12/04/21	TJW
Benzo(a)pyrene	ND		ug/Kg	10	3.5	1	279158	12/03/21	12/04/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.1	1	279158	12/03/21	12/04/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	4.4	1	279158	12/03/21	12/04/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	10	3.7	1	279158	12/03/21	12/04/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	64%		%REC	27-125		1	279158	12/03/21	12/04/21	TJW
2-Fluorobiphenyl	63%		%REC	30-120		1	279158	12/03/21	12/04/21	TJW
Terphenyl-d14	68%		%REC	33-155		1	279158	12/03/21	12/04/21	TJW

Analysis Results for 454317

Sample ID: B16-5

Lab ID: 454317-003

Collected: 11/30/21 08:40

Matrix: Soil

454317-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist	
Method: EPA 6010B											
Prep Method: METHOD											
Antimony	ND		mg/Kg	3.3	1.7	1.1	279144	12/02/21	12/06/21	KLN	
Arsenic	2.4		mg/Kg	1.1	0.73	1.1	279144	12/02/21	12/06/21	KLN	
Barium	57		mg/Kg	1.1	0.11	1.1	279144	12/02/21	12/06/21	KLN	
Beryllium	0.22	J	mg/Kg	0.54	0.12	1.1	279144	12/02/21	12/03/21	KLN	
Cadmium	ND		mg/Kg	0.54	0.082	1.1	279144	12/02/21	12/06/21	KLN	
Chromium	40		mg/Kg	1.1	0.23	1.1	279144	12/02/21	12/06/21	KLN	
Cobalt	5.5		mg/Kg	0.54	0.074	1.1	279144	12/02/21	12/06/21	KLN	
Copper	7.9		mg/Kg	1.1	0.65	1.1	279144	12/02/21	12/03/21	KLN	
Lead	3.0		mg/Kg	1.1	0.91	1.1	279144	12/02/21	12/06/21	KLN	
Molybdenum	ND		mg/Kg	1.1	0.64	1.1	279144	12/02/21	12/06/21	KLN	
Nickel	37		mg/Kg	1.1	0.28	1.1	279144	12/02/21	12/06/21	KLN	
Selenium	ND		mg/Kg	3.3	0.43	1.1	279144	12/02/21	12/06/21	KLN	
Silver	ND		mg/Kg	0.54	0.17	1.1	279144	12/02/21	12/03/21	KLN	
Thallium	0.76	J	mg/Kg	3.3	0.63	1.1	279144	12/02/21	12/06/21	KLN	
Vanadium	33		mg/Kg	1.1	0.47	1.1	279144	12/02/21	12/03/21	KLN	
Zinc	24		mg/Kg	5.4	0.82	1.1	279144	12/02/21	12/06/21	KLN	
Method: EPA 7471A											
Prep Method: METHOD											
Mercury	ND		mg/Kg	0.15	0.041	1.1	279206	12/03/21	12/03/21	TNN	
Method: EPA 8015B											
Prep Method: EPA 5030B											
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/02/21	12/02/21	EMW	
Surrogates				Limits							
Bromofluorobenzene (FID)	89%		%REC	60-140			1	279137	12/02/21	12/02/21	EMW
Method: EPA 8015M											
Prep Method: EPA 3580											
DRO C10-C28	ND		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES	
ORO C28-C44	4.5	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES	
Surrogates				Limits							
n-Triacontane	97%		%REC	70-130			1	279190	12/03/21	12/07/21	MES
Method: EPA 8082											
Prep Method: EPA 3546											
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW	
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW	
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW	
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW	
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW	
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW	
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW	
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW	

Analysis Results for 454317

454317-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits							
Decachlorobiphenyl (PCB)	62%		%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/02/21	12/02/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/02/21	12/02/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Acetone	ND		ug/Kg	100	25	1	279153	12/02/21	12/02/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279153	12/02/21	12/02/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279153	12/02/21	12/02/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/02/21	12/02/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/02/21	12/02/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO

Analysis Results for 454317

454317-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279153	12/02/21	12/02/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/02/21	12/02/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/02/21	12/02/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/02/21	12/02/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/02/21	12/02/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/02/21	12/02/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/02/21	12/02/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/02/21	12/02/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/02/21	12/02/21	RAO
Surrogates				Limits						
Dibromofluoromethane	99%		%REC	70-145	1.3	1	279153	12/02/21	12/02/21	RAO
1,2-Dichloroethane-d4	102%		%REC	70-145		1	279153	12/02/21	12/02/21	RAO
Toluene-d8	100%		%REC	70-145		1	279153	12/02/21	12/02/21	RAO
Bromofluorobenzene	101%		%REC	70-145	1.5	1	279153	12/02/21	12/02/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	10	2.1	1	279158	12/03/21	12/04/21	TJW
2-Methylnaphthalene	ND		ug/Kg	10	3.2	1	279158	12/03/21	12/04/21	TJW
Naphthalene	ND		ug/Kg	10	3.2	1	279158	12/03/21	12/04/21	TJW
Acenaphthylene	ND		ug/Kg	10	7.1	1	279158	12/03/21	12/04/21	TJW
Acenaphthene	ND		ug/Kg	10	2.5	1	279158	12/03/21	12/04/21	TJW
Fluorene	ND		ug/Kg	10	2.1	1	279158	12/03/21	12/04/21	TJW
Phenanthrene	ND		ug/Kg	10	3.2	1	279158	12/03/21	12/04/21	TJW
Anthracene	ND		ug/Kg	10	2.5	1	279158	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	ND		ug/Kg	10	2.5	1	279158	12/03/21	12/04/21	TJW
Pyrene	ND		ug/Kg	10	2.1	1	279158	12/03/21	12/04/21	TJW
Benzo(a)anthracene	ND		ug/Kg	10	4.3	1	279158	12/03/21	12/04/21	TJW
Chrysene	ND		ug/Kg	10	3.6	1	279158	12/03/21	12/04/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	10	5.4	1	279158	12/03/21	12/04/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	10	2.5	1	279158	12/03/21	12/04/21	TJW
Benzo(a)pyrene	ND		ug/Kg	10	3.5	1	279158	12/03/21	12/04/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.1	1	279158	12/03/21	12/04/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	4.4	1	279158	12/03/21	12/04/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	10	3.7	1	279158	12/03/21	12/04/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	66%		%REC	27-125		1	279158	12/03/21	12/04/21	TJW
2-Fluorobiphenyl	63%		%REC	30-120		1	279158	12/03/21	12/04/21	TJW
Terphenyl-d14	64%		%REC	33-155		1	279158	12/03/21	12/04/21	TJW

Analysis Results for 454317

Sample ID: B17-1

Lab ID: 454317-004

Collected: 11/30/21 08:22

Matrix: Soil

454317-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	ND		mg/Kg	3.1	1.7	1	279144	12/02/21	12/06/21	KLN
Arsenic	4.6		mg/Kg	1.0	0.70	1	279144	12/02/21	12/06/21	KLN
Barium	210		mg/Kg	1.0	0.10	1	279144	12/02/21	12/06/21	KLN
Beryllium	0.25	J	mg/Kg	0.52	0.11	1	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.52	0.078	1	279144	12/02/21	12/06/21	KLN
Chromium	42		mg/Kg	1.0	0.22	1	279144	12/02/21	12/06/21	KLN
Cobalt	7.8		mg/Kg	0.52	0.071	1	279144	12/02/21	12/06/21	KLN
Copper	24		mg/Kg	1.0	0.63	1	279144	12/02/21	12/03/21	KLN
Lead	17		mg/Kg	1.0	0.88	1	279144	12/02/21	12/06/21	KLN
Molybdenum	ND		mg/Kg	1.0	0.61	1	279144	12/02/21	12/06/21	KLN
Nickel	48		mg/Kg	1.0	0.27	1	279144	12/02/21	12/06/21	KLN
Selenium	ND		mg/Kg	3.1	0.42	1	279144	12/02/21	12/06/21	KLN
Silver	ND		mg/Kg	0.52	0.17	1	279144	12/02/21	12/03/21	KLN
Thallium	0.76	J	mg/Kg	3.1	0.60	1	279144	12/02/21	12/06/21	KLN
Vanadium	65		mg/Kg	1.0	0.45	1	279144	12/02/21	12/03/21	KLN
Zinc	53		mg/Kg	5.2	0.78	1	279144	12/02/21	12/06/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	0.13	J	mg/Kg	0.15	0.042	1.1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/02/21	12/02/21	EMW
Surrogates Limits										
Bromofluorobenzene (FID)	90%		%REC	60-140		1	279137	12/02/21	12/02/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	26		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	77		mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates Limits										
n-Triacontane	117%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	26	J	ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist	
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW	
Surrogates			Limits								
Decachlorobiphenyl (PCB)	77%		%REC	19-121			1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B											
Prep Method: EPA 5030B											
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO	
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO	
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/03/21	12/03/21	RAO	
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
Bromomethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
Chloroethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
Acetone	ND		ug/Kg	100	25	1	279153	12/03/21	12/03/21	RAO	
Freon 113	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO	
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO	
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO	
MTBE	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
2-Butanone	ND		ug/Kg	100	3.2	1	279153	12/03/21	12/03/21	RAO	
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO	
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO	
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO	
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/03/21	12/03/21	RAO	
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO	
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO	

Analysis Results for 454317

454317-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279153	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	88%		%REC	70-145	1.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	102%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Toluene-d8	100%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Bromofluorobenzene	105%		%REC	70-145	1.5	1	279153	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	40	8.2	4	279158	12/03/21	12/04/21	TJW
2-Methylnaphthalene	ND		ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Naphthalene	ND		ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Acenaphthylene	ND		ug/Kg	40	29	4	279158	12/03/21	12/04/21	TJW
Acenaphthene	ND		ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW
Fluorene	ND		ug/Kg	40	8.6	4	279158	12/03/21	12/04/21	TJW
Phenanthrene	53		ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Anthracene	11	J	ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	71		ug/Kg	40	9.8	4	279158	12/03/21	12/04/21	TJW
Pyrene	74		ug/Kg	40	8.4	4	279158	12/03/21	12/04/21	TJW
Benzo(a)anthracene	28	J	ug/Kg	40	17	4	279158	12/03/21	12/04/21	TJW
Chrysene	40	J	ug/Kg	40	15	4	279158	12/03/21	12/04/21	TJW
Benzo(b)fluoranthene	28	J	ug/Kg	40	21	4	279158	12/03/21	12/04/21	TJW
Benzo(k)fluoranthene	28	J	ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW
Benzo(a)pyrene	31	J	ug/Kg	40	14	4	279158	12/03/21	12/04/21	TJW
Indeno(1,2,3-cd)pyrene	19	J	ug/Kg	40	16	4	279158	12/03/21	12/04/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	40	18	4	279158	12/03/21	12/04/21	TJW
Benzo(g,h,i)perylene	22	J	ug/Kg	40	15	4	279158	12/03/21	12/04/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	74%		%REC	27-125		4	279158	12/03/21	12/04/21	TJW
2-Fluorobiphenyl	73%		%REC	30-120		4	279158	12/03/21	12/04/21	TJW
Terphenyl-d14	83%		%REC	33-155		4	279158	12/03/21	12/04/21	TJW

Analysis Results for 454317

Sample ID: B17-3

Lab ID: 454317-005

Collected: 11/30/21 09:56

Matrix: Soil

454317-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	ND		mg/Kg	3.1	1.6	1	279144	12/02/21	12/06/21	KLN
Arsenic	4.7		mg/Kg	1.0	0.69	1	279144	12/02/21	12/06/21	KLN
Barium	200		mg/Kg	1.0	0.10	1	279144	12/02/21	12/06/21	KLN
Beryllium	0.26	J	mg/Kg	0.52	0.11	1	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.52	0.077	1	279144	12/02/21	12/06/21	KLN
Chromium	45		mg/Kg	1.0	0.22	1	279144	12/02/21	12/06/21	KLN
Cobalt	8.6		mg/Kg	0.52	0.070	1	279144	12/02/21	12/06/21	KLN
Copper	23		mg/Kg	1.0	0.62	1	279144	12/02/21	12/03/21	KLN
Lead	19		mg/Kg	1.0	0.87	1	279144	12/02/21	12/06/21	KLN
Molybdenum	ND		mg/Kg	1.0	0.61	1	279144	12/02/21	12/06/21	KLN
Nickel	56		mg/Kg	1.0	0.27	1	279144	12/02/21	12/06/21	KLN
Selenium	ND		mg/Kg	3.1	0.41	1	279144	12/02/21	12/06/21	KLN
Silver	ND		mg/Kg	0.52	0.16	1	279144	12/02/21	12/03/21	KLN
Thallium	0.62	J	mg/Kg	3.1	0.60	1	279144	12/02/21	12/06/21	KLN
Vanadium	56		mg/Kg	1.0	0.44	1	279144	12/02/21	12/03/21	KLN
Zinc	57		mg/Kg	5.2	0.77	1	279144	12/02/21	12/06/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	0.33		mg/Kg	0.15	0.041	1.1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates Limits										
Bromofluorobenzene (FID)	88%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	32		mg/Kg	10	1.6	1	279190	12/03/21	12/08/21	MES
ORO C28-C44	47		mg/Kg	20	1.6	1	279190	12/03/21	12/08/21	MES
Surrogates Limits										
n-Triacontane	89%		%REC	70-130		1	279190	12/03/21	12/08/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits							
Decachlorobiphenyl (PCB)	58%		%REC	19-121		1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/03/21	12/03/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Acetone	ND		ug/Kg	100	25	1	279153	12/03/21	12/03/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279153	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/03/21	12/03/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO

Analysis Results for 454317

454317-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279153	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	100%		%REC	70-145	1.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	103%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Toluene-d8	100%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Bromofluorobenzene	102%		%REC	70-145	1.5	1	279153	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	40	8.2	4	279158	12/03/21	12/04/21	TJW
2-Methylnaphthalene	ND		ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Naphthalene	ND		ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Acenaphthylene	ND		ug/Kg	40	29	4	279158	12/03/21	12/04/21	TJW
Acenaphthene	ND		ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW
Fluorene	ND		ug/Kg	40	8.6	4	279158	12/03/21	12/04/21	TJW
Phenanthrene	25	J	ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Anthracene	ND		ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	57		ug/Kg	40	9.8	4	279158	12/03/21	12/04/21	TJW
Pyrene	65		ug/Kg	40	8.4	4	279158	12/03/21	12/04/21	TJW
Benzo(a)anthracene	30	J	ug/Kg	40	17	4	279158	12/03/21	12/04/21	TJW
Chrysene	43		ug/Kg	40	15	4	279158	12/03/21	12/04/21	TJW
Benzo(b)fluoranthene	31	J	ug/Kg	40	21	4	279158	12/03/21	12/04/21	TJW
Benzo(k)fluoranthene	30	J	ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW
Benzo(a)pyrene	34	J	ug/Kg	40	14	4	279158	12/03/21	12/04/21	TJW
Indeno(1,2,3-cd)pyrene	19	J	ug/Kg	40	16	4	279158	12/03/21	12/04/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	40	18	4	279158	12/03/21	12/04/21	TJW
Benzo(g,h,i)perylene	24	J	ug/Kg	40	15	4	279158	12/03/21	12/04/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	80%		%REC	27-125		4	279158	12/03/21	12/04/21	TJW
2-Fluorobiphenyl	84%		%REC	30-120		4	279158	12/03/21	12/04/21	TJW
Terphenyl-d14	96%		%REC	33-155		4	279158	12/03/21	12/04/21	TJW

Analysis Results for 454317

Sample ID: B17-5
Lab ID: 454317-006
Collected: 11/30/21 10:03
Matrix: Soil

454317-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	ND		mg/Kg	2.9	1.6	0.97	279144	12/02/21	12/06/21	KLN
Arsenic	3.8		mg/Kg	0.97	0.65	0.97	279144	12/02/21	12/06/21	KLN
Barium	170		mg/Kg	0.97	0.097	0.97	279144	12/02/21	12/06/21	KLN
Beryllium	0.30	J	mg/Kg	0.49	0.11	0.97	279144	12/02/21	12/03/21	KLN
Cadmium	0.077	J	mg/Kg	0.49	0.073	0.97	279144	12/02/21	12/06/21	KLN
Chromium	36		mg/Kg	0.97	0.20	0.97	279144	12/02/21	12/06/21	KLN
Cobalt	5.8		mg/Kg	0.49	0.066	0.97	279144	12/02/21	12/06/21	KLN
Copper	18		mg/Kg	0.97	0.58	0.97	279144	12/02/21	12/03/21	KLN
Lead	14		mg/Kg	0.97	0.82	0.97	279144	12/02/21	12/06/21	KLN
Molybdenum	1.0		mg/Kg	0.97	0.57	0.97	279144	12/02/21	12/06/21	KLN
Nickel	40		mg/Kg	0.97	0.25	0.97	279144	12/02/21	12/06/21	KLN
Selenium	ND		mg/Kg	2.9	0.39	0.97	279144	12/02/21	12/06/21	KLN
Silver	ND		mg/Kg	0.49	0.16	0.97	279144	12/02/21	12/03/21	KLN
Thallium	0.80	J	mg/Kg	2.9	0.56	0.97	279144	12/02/21	12/06/21	KLN
Vanadium	46		mg/Kg	0.97	0.42	0.97	279144	12/02/21	12/03/21	KLN
Zinc	45		mg/Kg	4.9	0.73	0.97	279144	12/02/21	12/06/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	0.062	J	mg/Kg	0.14	0.039	1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates Limits										
Bromofluorobenzene (FID)	90%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	2.7	J	mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	5.4	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates Limits										
n-Triacontane	101%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits							
Decachlorobiphenyl (PCB)	63%		%REC	19-121			1 279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/03/21	12/03/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Acetone	ND		ug/Kg	100	25	1	279153	12/03/21	12/03/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279153	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/03/21	12/03/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO

Analysis Results for 454317

454317-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279153	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	87%		%REC	70-145	1.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	102%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Toluene-d8	98%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Bromofluorobenzene	101%		%REC	70-145	1.5	1	279153	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	40	8.2	4	279158	12/03/21	12/04/21	TJW
2-Methylnaphthalene	ND		ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Naphthalene	40	J	ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Acenaphthylene	ND		ug/Kg	40	29	4	279158	12/03/21	12/04/21	TJW
Acenaphthene	ND		ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW
Fluorene	ND		ug/Kg	40	8.6	4	279158	12/03/21	12/04/21	TJW
Phenanthrene	16	J	ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Anthracene	ND		ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	19	J	ug/Kg	40	9.8	4	279158	12/03/21	12/04/21	TJW
Pyrene	22	J	ug/Kg	40	8.4	4	279158	12/03/21	12/04/21	TJW
Benzo(a)anthracene	ND		ug/Kg	40	17	4	279158	12/03/21	12/04/21	TJW
Chrysene	ND		ug/Kg	40	15	4	279158	12/03/21	12/04/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	40	21	4	279158	12/03/21	12/04/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW
Benzo(a)pyrene	ND		ug/Kg	40	14	4	279158	12/03/21	12/04/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	40	16	4	279158	12/03/21	12/04/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	40	18	4	279158	12/03/21	12/04/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	40	15	4	279158	12/03/21	12/04/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	80%		%REC	27-125		4	279158	12/03/21	12/04/21	TJW
2-Fluorobiphenyl	80%		%REC	30-120		4	279158	12/03/21	12/04/21	TJW
Terphenyl-d14	85%		%REC	33-155		4	279158	12/03/21	12/04/21	TJW

Analysis Results for 454317

Sample ID: B18-1

Lab ID: 454317-007

Collected: 11/30/21 09:40

Matrix: Soil

454317-007 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	ND		mg/Kg	3.0	1.6	0.99	279144	12/02/21	12/06/21	KLN
Arsenic	4.5		mg/Kg	0.99	0.66	0.99	279144	12/02/21	12/06/21	KLN
Barium	170		mg/Kg	0.99	0.099	0.99	279144	12/02/21	12/06/21	KLN
Beryllium	0.27	J	mg/Kg	0.50	0.11	0.99	279144	12/02/21	12/03/21	KLN
Cadmium	0.095	J	mg/Kg	0.50	0.074	0.99	279144	12/02/21	12/06/21	KLN
Chromium	38		mg/Kg	0.99	0.21	0.99	279144	12/02/21	12/06/21	KLN
Cobalt	6.2		mg/Kg	0.50	0.067	0.99	279144	12/02/21	12/06/21	KLN
Copper	22		mg/Kg	0.99	0.59	0.99	279144	12/02/21	12/03/21	KLN
Lead	19		mg/Kg	0.99	0.83	0.99	279144	12/02/21	12/06/21	KLN
Molybdenum	0.68	J	mg/Kg	0.99	0.58	0.99	279144	12/02/21	12/06/21	KLN
Nickel	42		mg/Kg	0.99	0.26	0.99	279144	12/02/21	12/06/21	KLN
Selenium	ND		mg/Kg	3.0	0.40	0.99	279144	12/02/21	12/06/21	KLN
Silver	ND		mg/Kg	0.50	0.16	0.99	279144	12/02/21	12/03/21	KLN
Thallium	0.80	J	mg/Kg	3.0	0.57	0.99	279144	12/02/21	12/06/21	KLN
Vanadium	47		mg/Kg	0.99	0.43	0.99	279144	12/02/21	12/03/21	KLN
Zinc	47		mg/Kg	5.0	0.74	0.99	279144	12/02/21	12/06/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	0.10	J	mg/Kg	0.14	0.040	1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates Limits										
Bromofluorobenzene (FID)	89%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	17		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	21	B	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates Limits										
n-Triacontane	110%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-007 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits							
Decachlorobiphenyl (PCB)	57%		%REC	19-121			1 279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/03/21	12/03/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Acetone	ND		ug/Kg	100	25	1	279153	12/03/21	12/03/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279153	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/03/21	12/03/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO

Analysis Results for 454317

454317-007 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279153	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	92%		%REC	70-145	1.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	103%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Toluene-d8	98%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Bromofluorobenzene	101%		%REC	70-145	1.5	1	279153	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	40	8.2	4	279158	12/03/21	12/04/21	TJW
2-Methylnaphthalene	ND		ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Naphthalene	ND		ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Acenaphthylene	ND		ug/Kg	40	29	4	279158	12/03/21	12/04/21	TJW
Acenaphthene	ND		ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW
Fluorene	ND		ug/Kg	40	8.6	4	279158	12/03/21	12/04/21	TJW
Phenanthrene	14	J	ug/Kg	40	13	4	279158	12/03/21	12/04/21	TJW
Anthracene	ND		ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-007 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	54		ug/Kg	40	9.8	4	279158	12/03/21	12/04/21	TJW
Pyrene	56		ug/Kg	40	8.4	4	279158	12/03/21	12/04/21	TJW
Benzo(a)anthracene	20	J	ug/Kg	40	17	4	279158	12/03/21	12/04/21	TJW
Chrysene	29	J	ug/Kg	40	15	4	279158	12/03/21	12/04/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	40	21	4	279158	12/03/21	12/04/21	TJW
Benzo(k)fluoranthene	19	J	ug/Kg	40	10	4	279158	12/03/21	12/04/21	TJW
Benzo(a)pyrene	24	J	ug/Kg	40	14	4	279158	12/03/21	12/04/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	40	16	4	279158	12/03/21	12/04/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	40	18	4	279158	12/03/21	12/04/21	TJW
Benzo(g,h,i)perylene	16	J	ug/Kg	40	15	4	279158	12/03/21	12/04/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	81%		%REC	27-125		4	279158	12/03/21	12/04/21	TJW
2-Fluorobiphenyl	80%		%REC	30-120		4	279158	12/03/21	12/04/21	TJW
Terphenyl-d14	89%		%REC	33-155		4	279158	12/03/21	12/04/21	TJW

Analysis Results for 454317

Sample ID: B18-3	Lab ID: 454317-008	Collected: 11/30/21 09:53
Matrix: Soil		

454317-008 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	ND		mg/Kg	3.3	1.8	1.1	279144	12/02/21	12/03/21	KLN
Arsenic	2.0		mg/Kg	1.1	0.74	1.1	279144	12/02/21	12/03/21	KLN
Barium	48		mg/Kg	1.1	0.11	1.1	279144	12/02/21	12/03/21	KLN
Beryllium	ND		mg/Kg	0.55	0.12	1.1	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.55	0.082	1.1	279144	12/02/21	12/03/21	KLN
Chromium	32		mg/Kg	1.1	0.23	1.1	279144	12/02/21	12/03/21	KLN
Cobalt	4.0		mg/Kg	0.55	0.075	1.1	279144	12/02/21	12/03/21	KLN
Copper	6.4		mg/Kg	1.1	0.66	1.1	279144	12/02/21	12/03/21	KLN
Lead	2.2		mg/Kg	1.1	0.92	1.1	279144	12/02/21	12/03/21	KLN
Molybdenum	ND		mg/Kg	1.1	0.65	1.1	279144	12/02/21	12/03/21	KLN
Nickel	23		mg/Kg	1.1	0.29	1.1	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	3.3	0.44	1.1	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.55	0.18	1.1	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	3.3	0.64	1.1	279144	12/02/21	12/03/21	KLN
Vanadium	22		mg/Kg	1.1	0.47	1.1	279144	12/02/21	12/03/21	KLN
Zinc	16		mg/Kg	5.5	0.82	1.1	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.14	0.039	1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates Limits										
Bromofluorobenzene (FID)	87%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	ND		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	4.7	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates Limits										
n-Triacontane	103%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-008 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist	
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW	
Surrogates			Limits								
Decachlorobiphenyl (PCB)	61%		%REC	19-121			1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B											
Prep Method: EPA 5030B											
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO	
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO	
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/03/21	12/03/21	RAO	
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
Bromomethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
Chloroethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
Acetone	ND		ug/Kg	100	25	1	279153	12/03/21	12/03/21	RAO	
Freon 113	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO	
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO	
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO	
MTBE	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
2-Butanone	ND		ug/Kg	100	3.2	1	279153	12/03/21	12/03/21	RAO	
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO	
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO	
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO	
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/03/21	12/03/21	RAO	
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO	
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO	

Analysis Results for 454317

454317-008 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279153	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	100%		%REC	70-145	1.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	101%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Toluene-d8	99%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Bromofluorobenzene	100%		%REC	70-145	1.5	1	279153	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	20	4.1	2	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	20	6.3	2	279158	12/03/21	12/06/21	TJW
Naphthalene	ND		ug/Kg	20	6.3	2	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	20	14	2	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	20	5.0	2	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	20	4.2	2	279158	12/03/21	12/06/21	TJW
Phenanthrene	ND		ug/Kg	20	6.3	2	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	20	5.0	2	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

454317-008 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	ND		ug/Kg	20	4.9	2	279158	12/03/21	12/06/21	TJW
Pyrene	ND		ug/Kg	20	4.2	2	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	20	8.5	2	279158	12/03/21	12/06/21	TJW
Chrysene	ND		ug/Kg	20	7.2	2	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	20	11	2	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	20	5.0	2	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	20	7.0	2	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	20	8.1	2	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	20	8.7	2	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	20	7.3	2	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	67%		%REC	27-125		2	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	70%		%REC	30-120		2	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	90%		%REC	33-155		2	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

Sample ID: B18-5

Lab ID: 454317-009

Collected: 11/30/21 10:08

Matrix: Soil

454317-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	ND		mg/Kg	3.1	1.7	1	279144	12/02/21	12/03/21	KLN
Arsenic	3.0		mg/Kg	1.0	0.70	1	279144	12/02/21	12/03/21	KLN
Barium	56		mg/Kg	1.0	0.10	1	279144	12/02/21	12/03/21	KLN
Beryllium	0.36	J	mg/Kg	0.52	0.11	1	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.52	0.078	1	279144	12/02/21	12/03/21	KLN
Chromium	45		mg/Kg	1.0	0.22	1	279144	12/02/21	12/03/21	KLN
Cobalt	6.9		mg/Kg	0.52	0.071	1	279144	12/02/21	12/03/21	KLN
Copper	8.0		mg/Kg	1.0	0.63	1	279144	12/02/21	12/03/21	KLN
Lead	3.4		mg/Kg	1.0	0.88	1	279144	12/02/21	12/03/21	KLN
Molybdenum	ND		mg/Kg	1.0	0.61	1	279144	12/02/21	12/03/21	KLN
Nickel	36		mg/Kg	1.0	0.27	1	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	3.1	0.42	1	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.52	0.17	1	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	3.1	0.60	1	279144	12/02/21	12/03/21	KLN
Vanadium	38		mg/Kg	1.0	0.45	1	279144	12/02/21	12/03/21	KLN
Zinc	19		mg/Kg	5.2	0.78	1	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.16	0.046	1.2	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates Limits										
Bromofluorobenzene (FID)	88%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	ND		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	4.6	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates Limits										
n-Triacontane	93%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits							
Decachlorobiphenyl (PCB)	58%		%REC	19-121			1 279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/03/21	12/03/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Acetone	ND		ug/Kg	100	25	1	279153	12/03/21	12/03/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279153	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/03/21	12/03/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO

Analysis Results for 454317

454317-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279153	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	101%		%REC	70-145	1.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	103%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Toluene-d8	98%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Bromofluorobenzene	102%		%REC	70-145	1.5	1	279153	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	20	4.1	2	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	20	6.3	2	279158	12/03/21	12/06/21	TJW
Naphthalene	ND		ug/Kg	20	6.3	2	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	20	14	2	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	20	5.0	2	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	20	4.2	2	279158	12/03/21	12/06/21	TJW
Phenanthrene	ND		ug/Kg	20	6.3	2	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	20	5.0	2	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

454317-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	ND		ug/Kg	20	4.9	2	279158	12/03/21	12/06/21	TJW
Pyrene	ND		ug/Kg	20	4.2	2	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	20	8.5	2	279158	12/03/21	12/06/21	TJW
Chrysene	ND		ug/Kg	20	7.2	2	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	20	11	2	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	20	5.0	2	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	20	7.0	2	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	20	8.1	2	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	20	8.7	2	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	20	7.3	2	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	72%		%REC	27-125		2	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	78%		%REC	30-120		2	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	108%		%REC	33-155		2	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

Sample ID: B22-1

Lab ID: 454317-019

Collected: 11/30/21 13:56

Matrix: Soil

454317-019 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	ND		mg/Kg	3.1	1.7	1	279144	12/02/21	12/03/21	KLN
Arsenic	4.4		mg/Kg	1.0	0.70	1	279144	12/02/21	12/03/21	KLN
Barium	210		mg/Kg	1.0	0.10	1	279144	12/02/21	12/03/21	KLN
Beryllium	0.29	J	mg/Kg	0.52	0.11	1	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.52	0.078	1	279144	12/02/21	12/03/21	KLN
Chromium	46		mg/Kg	1.0	0.22	1	279144	12/02/21	12/03/21	KLN
Cobalt	7.5		mg/Kg	0.52	0.071	1	279144	12/02/21	12/03/21	KLN
Copper	23		mg/Kg	1.0	0.63	1	279144	12/02/21	12/03/21	KLN
Lead	15		mg/Kg	1.0	0.88	1	279144	12/02/21	12/03/21	KLN
Molybdenum	0.87	J	mg/Kg	1.0	0.61	1	279144	12/02/21	12/03/21	KLN
Nickel	57		mg/Kg	1.0	0.27	1	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	3.1	0.42	1	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.52	0.17	1	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	3.1	0.60	1	279144	12/02/21	12/03/21	KLN
Vanadium	62		mg/Kg	1.0	0.45	1	279144	12/02/21	12/03/21	KLN
Zinc	54		mg/Kg	5.2	0.78	1	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.16	0.045	1.2	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279138	12/06/21	12/06/21	EMW
Surrogates Limits										
Bromofluorobenzene (FID)	90%		%REC	60-140		1	279138	12/06/21	12/06/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	15		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	21	B	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates Limits										
n-Triacontane	114%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-019 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist	
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW	
Surrogates			Limits								
Decachlorobiphenyl (PCB)	63%		%REC	19-121			1	279164	12/03/21	12/04/21	TJW
Method: EPA 8260B											
Prep Method: EPA 5030B											
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO	
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO	
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/03/21	12/03/21	RAO	
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
Bromomethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
Chloroethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
Acetone	ND		ug/Kg	100	25	1	279153	12/03/21	12/03/21	RAO	
Freon 113	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO	
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO	
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO	
MTBE	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
2-Butanone	ND		ug/Kg	100	3.2	1	279153	12/03/21	12/03/21	RAO	
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO	
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO	
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO	
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/03/21	12/03/21	RAO	
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO	
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO	
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO	
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO	
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO	

Analysis Results for 454317

454317-019 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279153	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	85%		%REC	70-145	1.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	102%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Toluene-d8	98%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Bromofluorobenzene	101%		%REC	70-145	1.5	1	279153	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	50	10	5	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	50	16	5	279158	12/03/21	12/06/21	TJW
Naphthalene	ND		ug/Kg	50	16	5	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	50	36	5	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	50	13	5	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	50	11	5	279158	12/03/21	12/06/21	TJW
Phenanthrene	21	J	ug/Kg	50	16	5	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	50	13	5	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

454317-019 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	42	J	ug/Kg	50	12	5	279158	12/03/21	12/06/21	TJW
Pyrene	44	J	ug/Kg	50	11	5	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	50	21	5	279158	12/03/21	12/06/21	TJW
Chrysene	25	J	ug/Kg	50	18	5	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	50	27	5	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	14	J	ug/Kg	50	13	5	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	50	18	5	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	50	21	5	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	50	22	5	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	50	18	5	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	73%		%REC	27-125		5	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	78%		%REC	30-120		5	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	115%		%REC	33-155		5	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

Sample ID: B22-3

Lab ID: 454317-020

Collected: 11/30/21 14:01

Matrix: Soil

454317-020 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	ND		mg/Kg	2.7	1.5	0.91	279144	12/02/21	12/03/21	KLN
Arsenic	3.5		mg/Kg	0.91	0.61	0.91	279144	12/02/21	12/03/21	KLN
Barium	170		mg/Kg	0.91	0.091	0.91	279144	12/02/21	12/03/21	KLN
Beryllium	0.25	J	mg/Kg	0.45	0.10	0.91	279144	12/02/21	12/03/21	KLN
Cadmium	0.075	J	mg/Kg	0.45	0.068	0.91	279144	12/02/21	12/03/21	KLN
Chromium	39		mg/Kg	0.91	0.19	0.91	279144	12/02/21	12/03/21	KLN
Cobalt	5.8		mg/Kg	0.45	0.062	0.91	279144	12/02/21	12/03/21	KLN
Copper	18		mg/Kg	0.91	0.55	0.91	279144	12/02/21	12/03/21	KLN
Lead	11		mg/Kg	0.91	0.76	0.91	279144	12/02/21	12/03/21	KLN
Molybdenum	0.79	J	mg/Kg	0.91	0.54	0.91	279144	12/02/21	12/03/21	KLN
Nickel	50		mg/Kg	0.91	0.24	0.91	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	2.7	0.36	0.91	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.45	0.15	0.91	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	2.7	0.53	0.91	279144	12/02/21	12/03/21	KLN
Vanadium	54		mg/Kg	0.91	0.39	0.91	279144	12/02/21	12/03/21	KLN
Zinc	42		mg/Kg	4.5	0.68	0.91	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.15	0.043	1.1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279138	12/06/21	12/06/21	EMW
Surrogates Limits										
Bromofluorobenzene (FID)	89%		%REC	60-140		1	279138	12/06/21	12/06/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	11		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	17	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates Limits										
n-Triacontane	108%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-020 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits							
Decachlorobiphenyl (PCB)	54%		%REC	19-121			1 279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/03/21	12/03/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Acetone	26	J	ug/Kg	100	25	1	279153	12/03/21	12/03/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279153	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/03/21	12/03/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO

Analysis Results for 454317

454317-020 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279153	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	84%		%REC	70-145	1.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	105%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Toluene-d8	99%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Bromofluorobenzene	102%		%REC	70-145	1.5	1	279153	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	40	8.2	4	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	40	13	4	279158	12/03/21	12/06/21	TJW
Naphthalene	ND		ug/Kg	40	13	4	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	40	29	4	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	40	10	4	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	40	8.6	4	279158	12/03/21	12/06/21	TJW
Phenanthrene	27	J	ug/Kg	40	13	4	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	40	10	4	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

454317-020 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	46		ug/Kg	40	9.8	4	279158	12/03/21	12/06/21	TJW
Pyrene	50		ug/Kg	40	8.4	4	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	18	J	ug/Kg	40	17	4	279158	12/03/21	12/06/21	TJW
Chrysene	26	J	ug/Kg	40	15	4	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	40	21	4	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	18	J	ug/Kg	40	10	4	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	19	J	ug/Kg	40	14	4	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	40	16	4	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	40	18	4	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	40	15	4	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	71%		%REC	27-125		4	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	76%		%REC	30-120		4	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	116%		%REC	33-155		4	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

Sample ID: B22-3D	Lab ID: 454317-021	Collected: 11/30/21 14:01
Matrix: Soil		

454317-021 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	ND		mg/Kg	2.6	1.4	0.88	279144	12/02/21	12/03/21	KLN
Arsenic	3.6		mg/Kg	0.88	0.59	0.88	279144	12/02/21	12/03/21	KLN
Barium	150		mg/Kg	0.88	0.088	0.88	279144	12/02/21	12/03/21	KLN
Beryllium	0.26	J	mg/Kg	0.44	0.096	0.88	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.44	0.066	0.88	279144	12/02/21	12/03/21	KLN
Chromium	32		mg/Kg	0.88	0.18	0.88	279144	12/02/21	12/03/21	KLN
Cobalt	5.5		mg/Kg	0.44	0.060	0.88	279144	12/02/21	12/03/21	KLN
Copper	17		mg/Kg	0.88	0.53	0.88	279144	12/02/21	12/03/21	KLN
Lead	11		mg/Kg	0.88	0.74	0.88	279144	12/02/21	12/03/21	KLN
Molybdenum	0.74	J	mg/Kg	0.88	0.52	0.88	279144	12/02/21	12/03/21	KLN
Nickel	42		mg/Kg	0.88	0.23	0.88	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	2.6	0.35	0.88	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.44	0.14	0.88	279144	12/02/21	12/03/21	KLN
Thallium	0.78	J	mg/Kg	2.6	0.51	0.88	279144	12/02/21	12/03/21	KLN
Vanadium	49		mg/Kg	0.88	0.38	0.88	279144	12/02/21	12/03/21	KLN
Zinc	40		mg/Kg	4.4	0.66	0.88	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	ND		mg/Kg	0.14	0.039	1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279138	12/06/21	12/06/21	EMW
Surrogates	Limits									
Bromofluorobenzene (FID)	89%		%REC	60-140		1	279138	12/06/21	12/06/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	9.8	J	mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	16	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates	Limits									
n-Triacontane	107%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-021 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits							
Decachlorobiphenyl (PCB)	60%		%REC	19-121			1 279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279153	12/03/21	12/03/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Acetone	26	J	ug/Kg	100	25	1	279153	12/03/21	12/03/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279153	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279153	12/03/21	12/03/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279153	12/03/21	12/03/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO

Analysis Results for 454317

454317-021 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279153	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279153	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279153	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279153	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279153	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279153	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279153	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	83%		%REC	70-145	1.3	1	279153	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	102%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Toluene-d8	99%		%REC	70-145		1	279153	12/03/21	12/03/21	RAO
Bromofluorobenzene	100%		%REC	70-145	1.5	1	279153	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	200	41	20	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	200	63	20	279158	12/03/21	12/06/21	TJW
Naphthalene	ND		ug/Kg	200	63	20	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	200	140	20	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	200	50	20	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	200	42	20	279158	12/03/21	12/06/21	TJW
Phenanthrene	ND		ug/Kg	200	63	20	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	200	50	20	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

454317-021 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	ND		ug/Kg	200	49	20	279158	12/03/21	12/06/21	TJW
Pyrene	50	J	ug/Kg	200	42	20	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	200	85	20	279158	12/03/21	12/06/21	TJW
Chrysene	ND		ug/Kg	200	72	20	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	200	110	20	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	200	50	20	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	200	70	20	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	200	81	20	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	200	87	20	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	200	73	20	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	76%		%REC	27-125		20	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	82%		%REC	30-120		20	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	119%		%REC	33-155		20	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

Sample ID: B22-5

Lab ID: 454317-022

Collected: 11/30/21 14:09

Matrix: Soil

454317-022 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	ND		mg/Kg	2.5	1.3	0.83	279144	12/02/21	12/03/21	KLN
Arsenic	6.0		mg/Kg	0.83	0.56	0.83	279144	12/02/21	12/03/21	KLN
Barium	150		mg/Kg	0.83	0.083	0.83	279144	12/02/21	12/03/21	KLN
Beryllium	0.22	J	mg/Kg	0.42	0.092	0.83	279144	12/02/21	12/03/21	KLN
Cadmium	0.19	J	mg/Kg	0.42	0.063	0.83	279144	12/02/21	12/03/21	KLN
Chromium	39		mg/Kg	0.83	0.18	0.83	279144	12/02/21	12/03/21	KLN
Cobalt	6.6		mg/Kg	0.42	0.057	0.83	279144	12/02/21	12/03/21	KLN
Copper	21		mg/Kg	0.83	0.50	0.83	279144	12/02/21	12/03/21	KLN
Lead	20		mg/Kg	0.83	0.70	0.83	279144	12/02/21	12/03/21	KLN
Molybdenum	0.63	J	mg/Kg	0.83	0.49	0.83	279144	12/02/21	12/03/21	KLN
Nickel	37		mg/Kg	0.83	0.22	0.83	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	2.5	0.33	0.83	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.42	0.13	0.83	279144	12/02/21	12/03/21	KLN
Thallium	0.52	J	mg/Kg	2.5	0.48	0.83	279144	12/02/21	12/03/21	KLN
Vanadium	42		mg/Kg	0.83	0.36	0.83	279144	12/02/21	12/03/21	KLN
Zinc	440		mg/Kg	4.2	0.63	0.83	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	0.17		mg/Kg	0.16	0.044	1.1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279138	12/06/21	12/06/21	EMW
Surrogates Limits										
Bromofluorobenzene (FID)	88%		%REC	60-140		1	279138	12/06/21	12/06/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	6.9	J	mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	11	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates Limits										
n-Triacontane	104%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-022 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits							
Decachlorobiphenyl (PCB)	64%		%REC	19-121			1 279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279229	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279229	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279229	12/03/21	12/03/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Acetone	ND		ug/Kg	100	25	1	279229	12/03/21	12/03/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279229	12/03/21	12/03/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279229	12/03/21	12/03/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279229	12/03/21	12/03/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
2-Butanone	3.4	J	ug/Kg	100	3.2	1	279229	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279229	12/03/21	12/03/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279229	12/03/21	12/03/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO

Analysis Results for 454317

454317-022 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279229	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279229	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279229	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279229	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279229	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279229	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	60%	*	%REC	70-145	1.3	1	279229	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	95%		%REC	70-145		1	279229	12/03/21	12/03/21	RAO
Toluene-d8	98%		%REC	70-145		1	279229	12/03/21	12/03/21	RAO
Bromofluorobenzene	108%		%REC	70-145	1.5	1	279229	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	20	4.0	2	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	20	6.2	2	279158	12/03/21	12/06/21	TJW
Naphthalene	ND		ug/Kg	20	6.2	2	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	20	14	2	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	20	5.0	2	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	20	4.2	2	279158	12/03/21	12/06/21	TJW
Phenanthrene	12	J	ug/Kg	20	6.2	2	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	20	5.0	2	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

454317-022 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	10	J	ug/Kg	20	4.8	2	279158	12/03/21	12/06/21	TJW
Pyrene	11	J	ug/Kg	20	4.1	2	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	20	8.4	2	279158	12/03/21	12/06/21	TJW
Chrysene	ND		ug/Kg	20	7.1	2	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	20	11	2	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	20	5.0	2	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	20	6.9	2	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	20	8.1	2	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	20	8.6	2	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	20	7.2	2	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	59%		%REC	27-125		2	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	61%		%REC	30-120		2	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	76%		%REC	33-155		2	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

Sample ID: B25-1

Lab ID: 454317-023

Collected: 11/30/21 14:28

Matrix: Soil

454317-023 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	ND		mg/Kg	2.9	1.5	0.96	279144	12/02/21	12/03/21	KLN
Arsenic	4.3		mg/Kg	0.96	0.64	0.96	279144	12/02/21	12/03/21	KLN
Barium	200		mg/Kg	0.96	0.096	0.96	279144	12/02/21	12/03/21	KLN
Beryllium	0.28	J	mg/Kg	0.48	0.11	0.96	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.48	0.072	0.96	279144	12/02/21	12/03/21	KLN
Chromium	38		mg/Kg	0.96	0.20	0.96	279144	12/02/21	12/03/21	KLN
Cobalt	7.2		mg/Kg	0.48	0.065	0.96	279144	12/02/21	12/03/21	KLN
Copper	22		mg/Kg	0.96	0.58	0.96	279144	12/02/21	12/03/21	KLN
Lead	14		mg/Kg	0.96	0.81	0.96	279144	12/02/21	12/03/21	KLN
Molybdenum	0.60	J	mg/Kg	0.96	0.57	0.96	279144	12/02/21	12/03/21	KLN
Nickel	51		mg/Kg	0.96	0.25	0.96	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	2.9	0.38	0.96	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.48	0.15	0.96	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	2.9	0.56	0.96	279144	12/02/21	12/03/21	KLN
Vanadium	61		mg/Kg	0.96	0.41	0.96	279144	12/02/21	12/03/21	KLN
Zinc	51		mg/Kg	4.8	0.72	0.96	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	0.058	J	mg/Kg	0.14	0.039	1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279138	12/06/21	12/06/21	EMW
Surrogates Limits										
Bromofluorobenzene (FID)	88%		%REC	60-140		1	279138	12/06/21	12/06/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	15		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	19	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates Limits										
n-Triacontane	108%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-023 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits							
Decachlorobiphenyl (PCB)	64%		%REC	19-121			1 279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279229	12/03/21	12/03/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279229	12/03/21	12/03/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279229	12/03/21	12/03/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Acetone	ND		ug/Kg	100	25	1	279229	12/03/21	12/03/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279229	12/03/21	12/03/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279229	12/03/21	12/03/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279229	12/03/21	12/03/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279229	12/03/21	12/03/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279229	12/03/21	12/03/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279229	12/03/21	12/03/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO

Analysis Results for 454317

454317-023 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279229	12/03/21	12/03/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279229	12/03/21	12/03/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/03/21	12/03/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279229	12/03/21	12/03/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279229	12/03/21	12/03/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279229	12/03/21	12/03/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279229	12/03/21	12/03/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279229	12/03/21	12/03/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/03/21	12/03/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279229	12/03/21	12/03/21	RAO
Surrogates				Limits						
Dibromofluoromethane	82%		%REC	70-145	1.3	1	279229	12/03/21	12/03/21	RAO
1,2-Dichloroethane-d4	94%		%REC	70-145		1	279229	12/03/21	12/03/21	RAO
Toluene-d8	97%		%REC	70-145		1	279229	12/03/21	12/03/21	RAO
Bromofluorobenzene	105%		%REC	70-145	1.5	1	279229	12/03/21	12/03/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	100	21	10	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	100	32	10	279158	12/03/21	12/06/21	TJW
Naphthalene	ND		ug/Kg	100	32	10	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	100	71	10	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	100	25	10	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	100	21	10	279158	12/03/21	12/06/21	TJW
Phenanthrene	ND		ug/Kg	100	32	10	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	100	25	10	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

454317-023 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	46	J	ug/Kg	100	25	10	279158	12/03/21	12/06/21	TJW
Pyrene	47	J	ug/Kg	100	21	10	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	100	43	10	279158	12/03/21	12/06/21	TJW
Chrysene	ND		ug/Kg	100	36	10	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	100	54	10	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	100	25	10	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	100	35	10	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	100	41	10	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	100	44	10	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	100	37	10	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	82%		%REC	27-125		10	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	83%		%REC	30-120		10	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	116%		%REC	33-155		10	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

Sample ID: B25-3

Lab ID: 454317-024

Collected: 11/30/21 14:32

Matrix: Soil

454317-024 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	ND		mg/Kg	2.7	1.4	0.89	279144	12/02/21	12/03/21	KLN
Arsenic	3.5		mg/Kg	0.89	0.60	0.89	279144	12/02/21	12/03/21	KLN
Barium	190		mg/Kg	0.89	0.089	0.89	279144	12/02/21	12/03/21	KLN
Beryllium	0.26	J	mg/Kg	0.45	0.098	0.89	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.45	0.067	0.89	279144	12/02/21	12/03/21	KLN
Chromium	41		mg/Kg	0.89	0.19	0.89	279144	12/02/21	12/03/21	KLN
Cobalt	6.9		mg/Kg	0.45	0.061	0.89	279144	12/02/21	12/03/21	KLN
Copper	26		mg/Kg	0.89	0.54	0.89	279144	12/02/21	12/03/21	KLN
Lead	15		mg/Kg	0.89	0.75	0.89	279144	12/02/21	12/03/21	KLN
Molybdenum	0.76	J	mg/Kg	0.89	0.53	0.89	279144	12/02/21	12/03/21	KLN
Nickel	47		mg/Kg	0.89	0.23	0.89	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	2.7	0.36	0.89	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.45	0.14	0.89	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	2.7	0.52	0.89	279144	12/02/21	12/03/21	KLN
Vanadium	59		mg/Kg	0.89	0.38	0.89	279144	12/02/21	12/03/21	KLN
Zinc	49		mg/Kg	4.5	0.67	0.89	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	0.083	J	mg/Kg	0.14	0.040	1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates Limits										
Bromofluorobenzene (FID)	88%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	9.9	J	mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	14	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates Limits										
n-Triacontane	109%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-024 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits							
Decachlorobiphenyl (PCB)	117%		%REC	19-121			1 279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279229	12/04/21	12/04/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Acetone	ND		ug/Kg	100	25	1	279229	12/04/21	12/04/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279229	12/04/21	12/04/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279229	12/04/21	12/04/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO

Analysis Results for 454317

454317-024 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279229	12/04/21	12/04/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279229	12/04/21	12/04/21	RAO
Surrogates				Limits						
Dibromofluoromethane	78%		%REC	70-145	1.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane-d4	94%		%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Toluene-d8	97%		%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Bromofluorobenzene	102%		%REC	70-145	1.5	1	279229	12/04/21	12/04/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	200	41	20	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	200	64	20	279158	12/03/21	12/06/21	TJW
Naphthalene	ND		ug/Kg	200	64	20	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	200	140	20	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	200	51	20	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	200	43	20	279158	12/03/21	12/06/21	TJW
Phenanthrene	ND		ug/Kg	200	63	20	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	200	51	20	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

454317-024 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	63	J	ug/Kg	200	49	20	279158	12/03/21	12/06/21	TJW
Pyrene	62	J	ug/Kg	200	42	20	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	200	85	20	279158	12/03/21	12/06/21	TJW
Chrysene	ND		ug/Kg	200	73	20	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	200	110	20	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	200	51	20	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	200	70	20	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	200	82	20	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	200	88	20	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	200	73	20	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	84%		%REC	27-125		20	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	85%		%REC	30-120		20	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	118%		%REC	33-155		20	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

Sample ID: B25-5	Lab ID: 454317-025	Collected: 11/30/21 14:36
Matrix: Soil		

454317-025 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	ND		mg/Kg	2.6	1.4	0.88	279144	12/02/21	12/03/21	KLN
Arsenic	2.4		mg/Kg	0.88	0.59	0.88	279144	12/02/21	12/03/21	KLN
Barium	120		mg/Kg	0.88	0.088	0.88	279144	12/02/21	12/03/21	KLN
Beryllium	0.26	J	mg/Kg	0.44	0.096	0.88	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.44	0.066	0.88	279144	12/02/21	12/03/21	KLN
Chromium	32		mg/Kg	0.88	0.18	0.88	279144	12/02/21	12/03/21	KLN
Cobalt	6.8		mg/Kg	0.44	0.060	0.88	279144	12/02/21	12/03/21	KLN
Copper	17		mg/Kg	0.88	0.53	0.88	279144	12/02/21	12/03/21	KLN
Lead	18		mg/Kg	0.88	0.74	0.88	279144	12/02/21	12/03/21	KLN
Molybdenum	ND		mg/Kg	0.88	0.52	0.88	279144	12/02/21	12/03/21	KLN
Nickel	28		mg/Kg	0.88	0.23	0.88	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	2.6	0.35	0.88	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.44	0.14	0.88	279144	12/02/21	12/03/21	KLN
Thallium	0.55	J	mg/Kg	2.6	0.51	0.88	279144	12/02/21	12/03/21	KLN
Vanadium	46		mg/Kg	0.88	0.38	0.88	279144	12/02/21	12/03/21	KLN
Zinc	37		mg/Kg	4.4	0.66	0.88	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	5.5		mg/Kg	1.6	0.45	12	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates	Limits									
Bromofluorobenzene (FID)	75%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	3.1	J	mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	5.7	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates	Limits									
n-Triacontane	101%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-025 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits							
Decachlorobiphenyl (PCB)	60%		%REC	19-121			1 279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Isopropyl Ether (DIPE)	0.3	J	ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279229	12/04/21	12/04/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Acetone	ND		ug/Kg	100	25	1	279229	12/04/21	12/04/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279229	12/04/21	12/04/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279229	12/04/21	12/04/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO

Analysis Results for 454317

454317-025 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279229	12/04/21	12/04/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279229	12/04/21	12/04/21	RAO
Surrogates				Limits						
Dibromofluoromethane	79%		%REC	70-145	1.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane-d4	94%		%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Toluene-d8	97%		%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Bromofluorobenzene	105%		%REC	70-145	1.5	1	279229	12/04/21	12/04/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	12	J	ug/Kg	40	8.2	4	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	21	J	ug/Kg	40	13	4	279158	12/03/21	12/06/21	TJW
Naphthalene	120		ug/Kg	40	13	4	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	40	29	4	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	40	10	4	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	40	8.6	4	279158	12/03/21	12/06/21	TJW
Phenanthrene	ND		ug/Kg	40	13	4	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	40	10	4	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

454317-025 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	ND		ug/Kg	40	9.8	4	279158	12/03/21	12/06/21	TJW
Pyrene	ND		ug/Kg	40	8.4	4	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	40	17	4	279158	12/03/21	12/06/21	TJW
Chrysene	ND		ug/Kg	40	15	4	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	40	21	4	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	40	10	4	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	40	14	4	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	40	16	4	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	40	18	4	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	40	15	4	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	67%		%REC	27-125		4	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	71%		%REC	30-120		4	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	92%		%REC	33-155		4	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

Sample ID: B27-1	Lab ID: 454317-026	Collected: 11/30/21 14:58
Matrix: Soil		

454317-026 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	1.7	J	mg/Kg	2.7	1.4	0.9	279144	12/02/21	12/03/21	KLN
Arsenic	2.2		mg/Kg	0.90	0.60	0.9	279144	12/02/21	12/03/21	KLN
Barium	110		mg/Kg	0.90	0.090	0.9	279144	12/02/21	12/03/21	KLN
Beryllium	0.26	J	mg/Kg	0.45	0.099	0.9	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.45	0.068	0.9	279144	12/02/21	12/03/21	KLN
Chromium	29		mg/Kg	0.90	0.19	0.9	279144	12/02/21	12/03/21	KLN
Cobalt	12		mg/Kg	0.45	0.061	0.9	279144	12/02/21	12/03/21	KLN
Copper	23		mg/Kg	0.90	0.54	0.9	279144	12/02/21	12/03/21	KLN
Lead	10		mg/Kg	0.90	0.76	0.9	279144	12/02/21	12/03/21	KLN
Molybdenum	ND		mg/Kg	0.90	0.53	0.9	279144	12/02/21	12/03/21	KLN
Nickel	32		mg/Kg	0.90	0.23	0.9	279144	12/02/21	12/03/21	KLN
Selenium	0.66	J	mg/Kg	2.7	0.36	0.9	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.45	0.14	0.9	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	2.7	0.52	0.9	279144	12/02/21	12/03/21	KLN
Vanadium	77		mg/Kg	0.90	0.39	0.9	279144	12/02/21	12/03/21	KLN
Zinc	53		mg/Kg	4.5	0.68	0.9	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	1.1		mg/Kg	0.15	0.043	1.1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates Limits										
Bromofluorobenzene (FID)	88%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	15		mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	85		mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates Limits										
n-Triacontane	116%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-026 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits							
Decachlorobiphenyl (PCB)	59%		%REC	19-121			1 279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279229	12/04/21	12/04/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Acetone	ND		ug/Kg	100	25	1	279229	12/04/21	12/04/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279229	12/04/21	12/04/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279229	12/04/21	12/04/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO

Analysis Results for 454317

454317-026 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279229	12/04/21	12/04/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279229	12/04/21	12/04/21	RAO
Surrogates				Limits						
Dibromofluoromethane	92%		%REC	70-145	1.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane-d4	96%		%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Toluene-d8	99%		%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Bromofluorobenzene	106%		%REC	70-145	1.5	1	279229	12/04/21	12/04/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	10	2.1	1	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	10	3.2	1	279158	12/03/21	12/06/21	TJW
Naphthalene	4.2	J	ug/Kg	10	3.2	1	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	10	7.2	1	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	10	2.5	1	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	10	2.2	1	279158	12/03/21	12/06/21	TJW
Phenanthrene	9.5	J	ug/Kg	10	3.2	1	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	10	2.6	1	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

454317-026 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	17		ug/Kg	10	2.5	1	279158	12/03/21	12/06/21	TJW
Pyrene	18		ug/Kg	10	2.1	1	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	8.2	J	ug/Kg	10	4.3	1	279158	12/03/21	12/06/21	TJW
Chrysene	12		ug/Kg	10	3.7	1	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	11		ug/Kg	10	5.4	1	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	11		ug/Kg	10	2.6	1	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	15		ug/Kg	10	3.5	1	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	12		ug/Kg	10	4.1	1	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	4.4	1	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	12		ug/Kg	10	3.7	1	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	67%		%REC	27-125		1	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	70%		%REC	30-120		1	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	98%		%REC	33-155		1	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

Sample ID: B27-1D	Lab ID: 454317-027	Collected: 11/30/21 14:58
Matrix: Soil		

454317-027 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	1.5	J	mg/Kg	2.8	1.5	0.93	279144	12/02/21	12/03/21	KLN
Arsenic	1.9		mg/Kg	0.93	0.62	0.93	279144	12/02/21	12/03/21	KLN
Barium	94		mg/Kg	0.93	0.093	0.93	279144	12/02/21	12/03/21	KLN
Beryllium	0.21	J	mg/Kg	0.46	0.10	0.93	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.46	0.069	0.93	279144	12/02/21	12/03/21	KLN
Chromium	40		mg/Kg	0.93	0.19	0.93	279144	12/02/21	12/03/21	KLN
Cobalt	13		mg/Kg	0.46	0.063	0.93	279144	12/02/21	12/03/21	KLN
Copper	28		mg/Kg	0.93	0.56	0.93	279144	12/02/21	12/03/21	KLN
Lead	12		mg/Kg	0.93	0.78	0.93	279144	12/02/21	12/03/21	KLN
Molybdenum	ND		mg/Kg	0.93	0.55	0.93	279144	12/02/21	12/03/21	KLN
Nickel	29		mg/Kg	0.93	0.24	0.93	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	2.8	0.37	0.93	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.46	0.15	0.93	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	2.8	0.54	0.93	279144	12/02/21	12/03/21	KLN
Vanadium	85		mg/Kg	0.93	0.40	0.93	279144	12/02/21	12/03/21	KLN
Zinc	49		mg/Kg	4.6	0.69	0.93	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	1.2		mg/Kg	0.16	0.044	1.1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates Limits										
Bromofluorobenzene (FID)	88%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	5.7	J	mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	9.8	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates Limits										
n-Triacontane	104%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-027 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits							
Decachlorobiphenyl (PCB)	60%		%REC	19-121			1 279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279229	12/04/21	12/04/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Acetone	ND		ug/Kg	100	25	1	279229	12/04/21	12/04/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279229	12/04/21	12/04/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279229	12/04/21	12/04/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO

Analysis Results for 454317

454317-027 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279229	12/04/21	12/04/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279229	12/04/21	12/04/21	RAO
Surrogates				Limits						
Dibromofluoromethane	99%		%REC	70-145	1.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane-d4	90%		%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Toluene-d8	99%		%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Bromofluorobenzene	103%		%REC	70-145	1.5	1	279229	12/04/21	12/04/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	50	10	5	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	50	16	5	279158	12/03/21	12/06/21	TJW
Naphthalene	ND		ug/Kg	50	16	5	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	50	36	5	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	50	13	5	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	50	11	5	279158	12/03/21	12/06/21	TJW
Phenanthrene	ND		ug/Kg	50	16	5	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	50	13	5	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

454317-027 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	13	J	ug/Kg	50	12	5	279158	12/03/21	12/06/21	TJW
Pyrene	14	J	ug/Kg	50	11	5	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	50	21	5	279158	12/03/21	12/06/21	TJW
Chrysene	ND		ug/Kg	50	18	5	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	50	27	5	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	50	13	5	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	50	18	5	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	50	21	5	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	50	22	5	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	50	18	5	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	80%		%REC	27-125		5	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	82%		%REC	30-120		5	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	98%		%REC	33-155		5	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

Sample ID: B27-3

Lab ID: 454317-028

Collected: 11/30/21 15:03

Matrix: Soil

454317-028 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	2.0	J	mg/Kg	2.9	1.6	0.97	279144	12/02/21	12/03/21	KLN
Arsenic	2.0		mg/Kg	0.97	0.65	0.97	279144	12/02/21	12/03/21	KLN
Barium	110		mg/Kg	0.97	0.097	0.97	279144	12/02/21	12/03/21	KLN
Beryllium	0.28	J	mg/Kg	0.49	0.11	0.97	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.49	0.073	0.97	279144	12/02/21	12/03/21	KLN
Chromium	37		mg/Kg	0.97	0.20	0.97	279144	12/02/21	12/03/21	KLN
Cobalt	15		mg/Kg	0.49	0.066	0.97	279144	12/02/21	12/03/21	KLN
Copper	29		mg/Kg	0.97	0.58	0.97	279144	12/02/21	12/03/21	KLN
Lead	9.9		mg/Kg	0.97	0.82	0.97	279144	12/02/21	12/03/21	KLN
Molybdenum	ND		mg/Kg	0.97	0.57	0.97	279144	12/02/21	12/03/21	KLN
Nickel	39		mg/Kg	0.97	0.25	0.97	279144	12/02/21	12/03/21	KLN
Selenium	ND		mg/Kg	2.9	0.39	0.97	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.49	0.16	0.97	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	2.9	0.56	0.97	279144	12/02/21	12/03/21	KLN
Vanadium	84		mg/Kg	0.97	0.42	0.97	279144	12/02/21	12/03/21	KLN
Zinc	54		mg/Kg	4.9	0.73	0.97	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	1.3		mg/Kg	0.15	0.043	1.1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates Limits										
Bromofluorobenzene (FID)	89%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	7.2	J	mg/Kg	10	2.4	1	279190	12/03/21	12/07/21	MES
ORO C28-C44	16	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/07/21	MES
Surrogates Limits										
n-Triacontane	107%		%REC	70-130		1	279190	12/03/21	12/07/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-028 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits							
Decachlorobiphenyl (PCB)	54%		%REC	19-121			1 279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279229	12/04/21	12/04/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Acetone	ND		ug/Kg	100	25	1	279229	12/04/21	12/04/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279229	12/04/21	12/04/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279229	12/04/21	12/04/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO

Analysis Results for 454317

454317-028 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279229	12/04/21	12/04/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279229	12/04/21	12/04/21	RAO
Surrogates				Limits						
Dibromofluoromethane	90%		%REC	70-145	1.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane-d4	92%		%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Toluene-d8	97%		%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Bromofluorobenzene	103%		%REC	70-145	1.5	1	279229	12/04/21	12/04/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	10	2.0	1	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	10	3.2	1	279158	12/03/21	12/06/21	TJW
Naphthalene	4.5	J	ug/Kg	10	3.2	1	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	10	7.1	1	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	10	2.5	1	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	10	2.1	1	279158	12/03/21	12/06/21	TJW
Phenanthrene	11		ug/Kg	10	3.2	1	279158	12/03/21	12/06/21	TJW
Anthracene	2.9	J	ug/Kg	10	2.5	1	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

454317-028 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	15		ug/Kg	10	2.4	1	279158	12/03/21	12/06/21	TJW
Pyrene	16		ug/Kg	10	2.1	1	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	6.0	J	ug/Kg	10	4.2	1	279158	12/03/21	12/06/21	TJW
Chrysene	8.9	J	ug/Kg	10	3.6	1	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	5.9	J	ug/Kg	10	5.3	1	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	7.5	J	ug/Kg	10	2.5	1	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	8.4	J	ug/Kg	10	3.5	1	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	5.1	J	ug/Kg	10	4.1	1	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	10	4.4	1	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	5.8	J	ug/Kg	10	3.7	1	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	82%		%REC	27-125		1	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	84%		%REC	30-120		1	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	108%		%REC	33-155		1	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

Sample ID: B27-5

Lab ID: 454317-029

Collected: 11/30/21 15:09

Matrix: Soil

454317-029 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: METHOD										
Antimony	2.1	J	mg/Kg	3.1	1.6	1	279144	12/02/21	12/03/21	KLN
Arsenic	1.1		mg/Kg	1.0	0.68	1	279144	12/02/21	12/03/21	KLN
Barium	89		mg/Kg	1.0	0.10	1	279144	12/02/21	12/03/21	KLN
Beryllium	0.35	J	mg/Kg	0.51	0.11	1	279144	12/02/21	12/03/21	KLN
Cadmium	ND		mg/Kg	0.51	0.077	1	279144	12/02/21	12/03/21	KLN
Chromium	30		mg/Kg	1.0	0.21	1	279144	12/02/21	12/03/21	KLN
Cobalt	20		mg/Kg	0.51	0.069	1	279144	12/02/21	12/03/21	KLN
Copper	36		mg/Kg	1.0	0.61	1	279144	12/02/21	12/03/21	KLN
Lead	9.6		mg/Kg	1.0	0.86	1	279144	12/02/21	12/03/21	KLN
Molybdenum	ND		mg/Kg	1.0	0.60	1	279144	12/02/21	12/03/21	KLN
Nickel	43		mg/Kg	1.0	0.27	1	279144	12/02/21	12/03/21	KLN
Selenium	0.73	J	mg/Kg	3.1	0.41	1	279144	12/02/21	12/03/21	KLN
Silver	ND		mg/Kg	0.51	0.16	1	279144	12/02/21	12/03/21	KLN
Thallium	ND		mg/Kg	3.1	0.59	1	279144	12/02/21	12/03/21	KLN
Vanadium	130		mg/Kg	1.0	0.44	1	279144	12/02/21	12/03/21	KLN
Zinc	66		mg/Kg	5.1	0.77	1	279144	12/02/21	12/03/21	KLN
Method: EPA 7471A Prep Method: METHOD										
Mercury	1.1		mg/Kg	0.15	0.041	1.1	279206	12/03/21	12/03/21	TNN
Method: EPA 8015B Prep Method: EPA 5030B										
TPH Gasoline	ND		mg/Kg	3.0	0.24	1	279137	12/03/21	12/03/21	EMW
Surrogates Limits										
Bromofluorobenzene (FID)	87%		%REC	60-140		1	279137	12/03/21	12/03/21	EMW
Method: EPA 8015M Prep Method: EPA 3580										
DRO C10-C28	3.3	J	mg/Kg	10	2.4	1	279190	12/03/21	12/08/21	MES
ORO C28-C44	6.2	B,J	mg/Kg	20	2.4	1	279190	12/03/21	12/08/21	MES
Surrogates Limits										
n-Triacontane	99%		%REC	70-130		1	279190	12/03/21	12/08/21	MES
Method: EPA 8082 Prep Method: EPA 3546										
Aroclor-1016	ND		ug/Kg	50	18	1	279164	12/03/21	12/04/21	TJW
Aroclor-1221	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1232	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW
Aroclor-1242	ND		ug/Kg	50	14	1	279164	12/03/21	12/04/21	TJW
Aroclor-1248	ND		ug/Kg	50	4.3	1	279164	12/03/21	12/04/21	TJW
Aroclor-1254	ND		ug/Kg	50	6.1	1	279164	12/03/21	12/04/21	TJW
Aroclor-1260	ND		ug/Kg	50	25	1	279164	12/03/21	12/04/21	TJW
Aroclor-1262	ND		ug/Kg	50	16	1	279164	12/03/21	12/04/21	TJW

Analysis Results for 454317

454317-029 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Aroclor-1268	ND		ug/Kg	50	13	1	279164	12/03/21	12/04/21	TJW
Surrogates			Limits							
Decachlorobiphenyl (PCB)	54%		%REC	19-121			1 279164	12/03/21	12/04/21	TJW
Method: EPA 8260B										
Prep Method: EPA 5030B										
3-Chloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	1	279229	12/04/21	12/04/21	RAO
Freon 12	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Chloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Vinyl Chloride	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromomethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Chloroethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Acetone	ND		ug/Kg	100	25	1	279229	12/04/21	12/04/21	RAO
Freon 113	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Methylene Chloride	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
MTBE	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Butanone	ND		ug/Kg	100	3.2	1	279229	12/04/21	12/04/21	RAO
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chloroform	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Benzene	ND		ug/Kg	5.0	0.2	1	279229	12/04/21	12/04/21	RAO
Trichloroethene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Bromodichloromethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Dibromomethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	1	279229	12/04/21	12/04/21	RAO
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Tetrachloroethene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO

Analysis Results for 454317

454317-029 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Dibromochloromethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Chlorobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Ethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
m,p-Xylenes	ND		ug/Kg	10	0.8	1	279229	12/04/21	12/04/21	RAO
o-Xylene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
Styrene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Bromoform	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Isopropylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
Propylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
Bromobenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	1	279229	12/04/21	12/04/21	RAO
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
n-Butylbenzene	ND		ug/Kg	5.0	0.7	1	279229	12/04/21	12/04/21	RAO
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	1	279229	12/04/21	12/04/21	RAO
Naphthalene	ND		ug/Kg	5.0	0.9	1	279229	12/04/21	12/04/21	RAO
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	1	279229	12/04/21	12/04/21	RAO
Xylene (total)	ND		ug/Kg	5.0		1	279229	12/04/21	12/04/21	RAO
Surrogates				Limits						
Dibromofluoromethane	96%		%REC	70-145	1.3	1	279229	12/04/21	12/04/21	RAO
1,2-Dichloroethane-d4	92%		%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Toluene-d8	98%		%REC	70-145		1	279229	12/04/21	12/04/21	RAO
Bromofluorobenzene	103%		%REC	70-145	1.5	1	279229	12/04/21	12/04/21	RAO
Method: EPA 8270C-SIM										
Prep Method: EPA 3546										
1-Methylnaphthalene	ND		ug/Kg	40	8.2	4	279158	12/03/21	12/06/21	TJW
2-Methylnaphthalene	ND		ug/Kg	40	13	4	279158	12/03/21	12/06/21	TJW
Naphthalene	ND		ug/Kg	40	13	4	279158	12/03/21	12/06/21	TJW
Acenaphthylene	ND		ug/Kg	40	29	4	279158	12/03/21	12/06/21	TJW
Acenaphthene	ND		ug/Kg	40	10	4	279158	12/03/21	12/06/21	TJW
Fluorene	ND		ug/Kg	40	8.6	4	279158	12/03/21	12/06/21	TJW
Phenanthrene	15	J	ug/Kg	40	13	4	279158	12/03/21	12/06/21	TJW
Anthracene	ND		ug/Kg	40	10	4	279158	12/03/21	12/06/21	TJW

Analysis Results for 454317

454317-029 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Fluoranthene	ND		ug/Kg	40	9.8	4	279158	12/03/21	12/06/21	TJW
Pyrene	11	J	ug/Kg	40	8.4	4	279158	12/03/21	12/06/21	TJW
Benzo(a)anthracene	ND		ug/Kg	40	17	4	279158	12/03/21	12/06/21	TJW
Chrysene	ND		ug/Kg	40	15	4	279158	12/03/21	12/06/21	TJW
Benzo(b)fluoranthene	ND		ug/Kg	40	21	4	279158	12/03/21	12/06/21	TJW
Benzo(k)fluoranthene	ND		ug/Kg	40	10	4	279158	12/03/21	12/06/21	TJW
Benzo(a)pyrene	ND		ug/Kg	40	14	4	279158	12/03/21	12/06/21	TJW
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	40	16	4	279158	12/03/21	12/06/21	TJW
Dibenz(a,h)anthracene	ND		ug/Kg	40	18	4	279158	12/03/21	12/06/21	TJW
Benzo(g,h,i)perylene	ND		ug/Kg	40	15	4	279158	12/03/21	12/06/21	TJW
Surrogates				Limits						
Nitrobenzene-d5	80%		%REC	27-125		4	279158	12/03/21	12/06/21	TJW
2-Fluorobiphenyl	81%		%REC	30-120		4	279158	12/03/21	12/06/21	TJW
Terphenyl-d14	100%		%REC	33-155		4	279158	12/03/21	12/06/21	TJW

- * Value is outside QC limits
- B Contamination found in associated Method Blank
- J Estimated value
- ND Not Detected

Batch QC

Type: Lab Control Sample	Lab ID: QC958762	Batch: 279137
Matrix: Soil	Method: EPA 8015B	Prep Method: EPA 5030B

QC958762 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
TPH Gasoline	5.659	5.000	mg/Kg	113%		70-130
Surrogates						
Bromofluorobenzene (FID)	0.2574	0.2000	mg/Kg	129%		60-140

Type: Matrix Spike	Lab ID: QC958765	Batch: 279137
Matrix (Source ID): Soil (454317-001)	Method: EPA 8015B	Prep Method: EPA 5030B

QC958765 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
TPH Gasoline	4.627	ND	5.000	mg/Kg	93%		70-130	1
Surrogates								
Bromofluorobenzene (FID)	0.2484		0.2000	mg/Kg	124%		60-140	1

Type: Matrix Spike Duplicate	Lab ID: QC958766	Batch: 279137
Matrix (Source ID): Soil (454317-001)	Method: EPA 8015B	Prep Method: EPA 5030B

QC958766 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
TPH Gasoline	4.363	ND	5.000	mg/Kg	87%		70-130	6	20	1
Surrogates										
Bromofluorobenzene (FID)	0.2434		0.2000	mg/Kg	122%		60-140			1

Type: Blank	Lab ID: QC958767	Batch: 279137
Matrix: Soil	Method: EPA 8015B	Prep Method: EPA 5030B

QC958767 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
TPH Gasoline	ND		mg/Kg	3.0	0.24	12/02/21	12/02/21
Surrogates							
Bromofluorobenzene (FID)	91%		%REC	60-140		12/02/21	12/02/21

Type: Blank	Lab ID: QC958768	Batch: 279137
Matrix: Soil	Method: EPA 8015B	Prep Method: EPA 5030B

QC958768 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
TPH Gasoline	ND		mg/Kg	75	6.0	12/02/21	12/02/21
Surrogates							
Bromofluorobenzene (FID)	91%		%REC	60-140		12/02/21	12/02/21

Batch QC

Type: Lab Control Sample	Lab ID: QC959226	Batch: 279138
Matrix: Soil	Method: EPA 8015B	Prep Method: EPA 5030B

QC959226 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
TPH Gasoline	5.357	5.000	mg/Kg	107%		70-130
Surrogates						
Bromofluorobenzene (FID)	0.2778	0.2000	mg/Kg	139%		60-140

Type: Matrix Spike	Lab ID: QC959227	Batch: 279138
Matrix (Source ID): Soil (454317-023)	Method: EPA 8015B	Prep Method: EPA 5030B

QC959227 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
TPH Gasoline	4.037	ND	5.000	mg/Kg	81%		70-130	1
Surrogates								
Bromofluorobenzene (FID)	0.2398		0.2000	mg/Kg	120%		60-140	1

Type: Matrix Spike Duplicate	Lab ID: QC959228	Batch: 279138
Matrix (Source ID): Soil (454317-023)	Method: EPA 8015B	Prep Method: EPA 5030B

QC959228 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
TPH Gasoline	3.978	ND	5.000	mg/Kg	80%		70-130	1	20	1
Surrogates										
Bromofluorobenzene (FID)	0.2350		0.2000	mg/Kg	117%		60-140			1

Type: Blank	Lab ID: QC959229	Batch: 279138
Matrix: Soil	Method: EPA 8015B	Prep Method: EPA 5030B

QC959229 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
TPH Gasoline	ND		mg/Kg	3.0	0.24	12/06/21	12/06/21
Surrogates							
Bromofluorobenzene (FID)	90%		%REC	60-140		12/06/21	12/06/21

Type: Blank	Lab ID: QC959230	Batch: 279138
Matrix: Soil	Method: EPA 8015B	Prep Method: EPA 5030B

QC959230 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
TPH Gasoline	ND		mg/Kg	75	6.0	12/06/21	12/06/21
Surrogates							
Bromofluorobenzene (FID)	75%		%REC	60-140		12/06/21	12/06/21

Batch QC

Type: Blank	Lab ID: QC958785	Batch: 279144
Matrix: Soil	Method: EPA 6010B	Prep Method: METHOD

QC958785 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Antimony	ND		mg/Kg	3.0	1.6	12/02/21	12/06/21
Arsenic	ND		mg/Kg	1.0	0.67	12/02/21	12/06/21
Barium	ND		mg/Kg	1.0	0.10	12/02/21	12/06/21
Beryllium	ND		mg/Kg	0.50	0.11	12/02/21	12/06/21
Cadmium	ND		mg/Kg	0.50	0.075	12/02/21	12/06/21
Chromium	ND		mg/Kg	1.0	0.21	12/02/21	12/06/21
Cobalt	ND		mg/Kg	0.50	0.068	12/02/21	12/06/21
Copper	ND		mg/Kg	1.0	0.60	12/02/21	12/06/21
Lead	ND		mg/Kg	1.0	0.84	12/02/21	12/06/21
Molybdenum	ND		mg/Kg	1.0	0.59	12/02/21	12/06/21
Nickel	ND		mg/Kg	1.0	0.26	12/02/21	12/06/21
Selenium	ND		mg/Kg	3.0	0.40	12/02/21	12/06/21
Silver	ND		mg/Kg	0.50	0.16	12/02/21	12/06/21
Thallium	ND		mg/Kg	3.0	0.58	12/02/21	12/06/21
Vanadium	ND		mg/Kg	1.0	0.43	12/02/21	12/06/21
Zinc	0.98	J	mg/Kg	5.0	0.75	12/02/21	12/06/21

Type: Lab Control Sample	Lab ID: QC958786	Batch: 279144
Matrix: Soil	Method: EPA 6010B	Prep Method: METHOD

QC958786 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Antimony	105.6	100.0	mg/Kg	106%		80-120
Arsenic	104.0	100.0	mg/Kg	104%		80-120
Barium	107.3	100.0	mg/Kg	107%		80-120
Beryllium	102.1	100.0	mg/Kg	102%		80-120
Cadmium	102.3	100.0	mg/Kg	102%		80-120
Chromium	103.2	100.0	mg/Kg	103%		80-120
Cobalt	107.5	100.0	mg/Kg	108%		80-120
Copper	103.6	100.0	mg/Kg	104%		80-120
Lead	109.8	100.0	mg/Kg	110%		80-120
Molybdenum	107.9	100.0	mg/Kg	108%		80-120
Nickel	108.3	100.0	mg/Kg	108%		80-120
Selenium	91.86	100.0	mg/Kg	92%		80-120
Silver	50.63	50.00	mg/Kg	101%		80-120
Thallium	107.6	100.0	mg/Kg	108%		80-120
Vanadium	103.7	100.0	mg/Kg	104%		80-120
Zinc	106.7	100.0	mg/Kg	107%		80-120

Batch QC

Type: Matrix Spike	Lab ID: QC958787	Batch: 279144
Matrix (Source ID): Soil (454317-001)	Method: EPA 6010B	Prep Method: METHOD

QC958787 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Antimony	34.06	ND	93.46	mg/Kg	36%	*	75-125	0.93
Arsenic	107.4	4.542	93.46	mg/Kg	110%		75-125	0.93
Barium	366.4	195.0	93.46	mg/Kg	183%	*	75-125	0.93
Beryllium	92.82	0.2672	93.46	mg/Kg	99%		75-125	0.93
Cadmium	100.2	ND	93.46	mg/Kg	107%		75-125	0.93
Chromium	141.9	41.06	93.46	mg/Kg	108%		75-125	0.93
Cobalt	101.6	7.961	93.46	mg/Kg	100%		75-125	0.93
Copper	124.8	27.14	93.46	mg/Kg	105%		75-125	0.93
Lead	114.2	19.52	93.46	mg/Kg	101%		75-125	0.93
Molybdenum	98.55	0.6749	93.46	mg/Kg	105%		75-125	0.93
Nickel	142.0	46.01	93.46	mg/Kg	103%		75-125	0.93
Selenium	90.26	ND	93.46	mg/Kg	97%		75-125	0.93
Silver	46.54	ND	46.73	mg/Kg	100%		75-125	0.93
Thallium	92.85	0.6883	93.46	mg/Kg	99%		75-125	0.93
Vanadium	157.2	58.88	93.46	mg/Kg	105%		75-125	0.93
Zinc	158.6	58.44	93.46	mg/Kg	107%		75-125	0.93

Type: Matrix Spike Duplicate	Lab ID: QC958788	Batch: 279144
Matrix (Source ID): Soil (454317-001)	Method: EPA 6010B	Prep Method: METHOD

QC958788 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim	DF
Antimony	41.94	ND	104.2	mg/Kg	40%	*	75-125	10	41	1
Arsenic	118.1	4.542	104.2	mg/Kg	109%		75-125	1	35	1
Barium	319.8	195.0	104.2	mg/Kg	120%		75-125	17	20	1
Beryllium	103.2	0.2672	104.2	mg/Kg	99%		75-125	0	20	1
Cadmium	111.0	ND	104.2	mg/Kg	107%		75-125	1	20	1
Chromium	155.3	41.06	104.2	mg/Kg	110%		75-125	1	20	1
Cobalt	111.8	7.961	104.2	mg/Kg	100%		75-125	0	20	1
Copper	138.4	27.14	104.2	mg/Kg	107%		75-125	2	20	1
Lead	125.1	19.52	104.2	mg/Kg	101%		75-125	0	20	1
Molybdenum	109.1	0.6749	104.2	mg/Kg	104%		75-125	1	20	1
Nickel	154.8	46.01	104.2	mg/Kg	104%		75-125	1	20	1
Selenium	99.72	ND	104.2	mg/Kg	96%		75-125	1	20	1
Silver	52.00	ND	52.08	mg/Kg	100%		75-125	0	20	1
Thallium	103.6	0.6883	104.2	mg/Kg	99%		75-125	0	20	1
Vanadium	169.3	58.88	104.2	mg/Kg	106%		75-125	1	20	1
Zinc	168.2	58.44	104.2	mg/Kg	105%		75-125	1	20	1

Batch QC

Type: Blank	Lab ID: QC958811	Batch: 279153
Matrix: Soil	Method: EPA 8260B	Prep Method: EPA 5030B

QC958811 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
3-Chloropropene	ND		ug/Kg	5.0	0.3	12/02/21	12/02/21
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	12/02/21	12/02/21
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	12/02/21	12/02/21
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	12/02/21	12/02/21
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	12/02/21	12/02/21
Freon 12	ND		ug/Kg	5.0	0.4	12/02/21	12/02/21
Chloromethane	ND		ug/Kg	5.0	0.4	12/02/21	12/02/21
Vinyl Chloride	ND		ug/Kg	5.0	0.4	12/02/21	12/02/21
Bromomethane	ND		ug/Kg	5.0	0.3	12/02/21	12/02/21
Chloroethane	ND		ug/Kg	5.0	0.3	12/02/21	12/02/21
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	12/02/21	12/02/21
Acetone	ND		ug/Kg	100	25	12/02/21	12/02/21
Freon 113	ND		ug/Kg	5.0	0.7	12/02/21	12/02/21
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	12/02/21	12/02/21
Methylene Chloride	ND		ug/Kg	5.0	0.7	12/02/21	12/02/21
MTBE	ND		ug/Kg	5.0	0.4	12/02/21	12/02/21
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	12/02/21	12/02/21
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	12/02/21	12/02/21
2-Butanone	ND		ug/Kg	100	3.2	12/02/21	12/02/21
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
Chloroform	ND		ug/Kg	5.0	0.4	12/02/21	12/02/21
Bromochloromethane	ND		ug/Kg	5.0	0.4	12/02/21	12/02/21
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	12/02/21	12/02/21
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	12/02/21	12/02/21
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
Benzene	ND		ug/Kg	5.0	0.2	12/02/21	12/02/21
Trichloroethene	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	12/02/21	12/02/21
Bromodichloromethane	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
Dibromomethane	ND		ug/Kg	5.0	0.6	12/02/21	12/02/21
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	12/02/21	12/02/21
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	12/02/21	12/02/21
Toluene	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	12/02/21	12/02/21
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	12/02/21	12/02/21
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
Tetrachloroethene	ND		ug/Kg	5.0	0.6	12/02/21	12/02/21
Dibromochloromethane	ND		ug/Kg	5.0	0.4	12/02/21	12/02/21

Batch QC

QC958811 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
Chlorobenzene	ND		ug/Kg	5.0	0.3	12/02/21	12/02/21
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
Ethylbenzene	ND		ug/Kg	5.0	0.4	12/02/21	12/02/21
m,p-Xylenes	ND		ug/Kg	10	0.8	12/02/21	12/02/21
o-Xylene	ND		ug/Kg	5.0	0.3	12/02/21	12/02/21
Styrene	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
Bromoform	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
Isopropylbenzene	ND		ug/Kg	5.0	0.4	12/02/21	12/02/21
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	12/02/21	12/02/21
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	12/02/21	12/02/21
Propylbenzene	ND		ug/Kg	5.0	0.4	12/02/21	12/02/21
Bromobenzene	ND		ug/Kg	5.0	0.3	12/02/21	12/02/21
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	12/02/21	12/02/21
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	12/02/21	12/02/21
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
n-Butylbenzene	ND		ug/Kg	5.0	0.7	12/02/21	12/02/21
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	12/02/21	12/02/21
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	12/02/21	12/02/21
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	12/02/21	12/02/21
Naphthalene	ND		ug/Kg	5.0	0.9	12/02/21	12/02/21
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	12/02/21	12/02/21
Xylene (total)	ND		ug/Kg	5.0		12/02/21	12/02/21
Surrogates				Limits			
Dibromofluoromethane	100%		%REC	70-130	1.3	12/02/21	12/02/21
1,2-Dichloroethane-d4	99%		%REC	70-145		12/02/21	12/02/21
Toluene-d8	100%		%REC	70-145		12/02/21	12/02/21
Bromofluorobenzene	99%		%REC	70-145	1.5	12/02/21	12/02/21

Batch QC

Type: Lab Control Sample	Lab ID: QC958812	Batch: 279153
Matrix: Soil	Method: EPA 8260B	Prep Method: EPA 5030B

QC958812 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,1-Dichloroethene	54.38	50.00	ug/Kg	109%		70-131
MTBE	54.45	50.00	ug/Kg	109%		69-130
Benzene	53.75	50.00	ug/Kg	107%		70-130
Trichloroethene	52.15	50.00	ug/Kg	104%		70-130
Toluene	50.82	50.00	ug/Kg	102%		70-130
Chlorobenzene	53.63	50.00	ug/Kg	107%		70-130
Surrogates						
Dibromofluoromethane	52.36	50.00	ug/Kg	105%		70-130
1,2-Dichloroethane-d4	51.32	50.00	ug/Kg	103%		70-145
Toluene-d8	48.15	50.00	ug/Kg	96%		70-145
Bromofluorobenzene	47.66	50.00	ug/Kg	95%		70-145

Type: Lab Control Sample Duplicate	Lab ID: QC958813	Batch: 279153
Matrix: Soil	Method: EPA 8260B	Prep Method: EPA 5030B

QC958813 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim
1,1-Dichloroethene	51.53	50.00	ug/Kg	103%		70-131	5	33
MTBE	50.51	50.00	ug/Kg	101%		69-130	8	30
Benzene	49.96	50.00	ug/Kg	100%		70-130	7	30
Trichloroethene	49.84	50.00	ug/Kg	100%		70-130	5	30
Toluene	48.12	50.00	ug/Kg	96%		70-130	5	30
Chlorobenzene	49.82	50.00	ug/Kg	100%		70-130	7	30
Surrogates								
Dibromofluoromethane	51.64	50.00	ug/Kg	103%		70-130		
1,2-Dichloroethane-d4	49.95	50.00	ug/Kg	100%		70-145		
Toluene-d8	48.62	50.00	ug/Kg	97%		70-145		
Bromofluorobenzene	48.81	50.00	ug/Kg	98%		70-145		

Batch QC

Type: Blank	Lab ID: QC958829	Batch: 279158
Matrix: Soil	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC958829 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
1-Methylnaphthalene	ND		ug/Kg	10	2.1	12/03/21	12/04/21
2-Methylnaphthalene	ND		ug/Kg	10	3.2	12/03/21	12/04/21
Naphthalene	ND		ug/Kg	10	3.2	12/03/21	12/04/21
Acenaphthylene	ND		ug/Kg	10	7.1	12/03/21	12/04/21
Acenaphthene	ND		ug/Kg	10	2.5	12/03/21	12/04/21
Fluorene	ND		ug/Kg	10	2.1	12/03/21	12/04/21
Phenanthrene	ND		ug/Kg	10	3.2	12/03/21	12/04/21
Anthracene	ND		ug/Kg	10	2.5	12/03/21	12/04/21
Fluoranthene	ND		ug/Kg	10	2.5	12/03/21	12/04/21
Pyrene	ND		ug/Kg	10	2.1	12/03/21	12/04/21
Benzo(a)anthracene	ND		ug/Kg	10	4.3	12/03/21	12/04/21
Chrysene	ND		ug/Kg	10	3.6	12/03/21	12/04/21
Benzo(b)fluoranthene	ND		ug/Kg	10	5.4	12/03/21	12/04/21
Benzo(k)fluoranthene	ND		ug/Kg	10	2.5	12/03/21	12/04/21
Benzo(a)pyrene	ND		ug/Kg	10	3.5	12/03/21	12/04/21
Indeno(1,2,3-cd)pyrene	ND		ug/Kg	10	4.1	12/03/21	12/04/21
Dibenz(a,h)anthracene	ND		ug/Kg	10	4.4	12/03/21	12/04/21
Benzo(g,h,i)perylene	ND		ug/Kg	10	3.7	12/03/21	12/04/21
Surrogates				Limits			
Nitrobenzene-d5	77%		%REC	27-125		12/03/21	12/04/21
2-Fluorobiphenyl	79%		%REC	30-120		12/03/21	12/04/21
Terphenyl-d14	91%		%REC	33-155		12/03/21	12/04/21

Batch QC

Type: Lab Control Sample	Lab ID: QC958830	Batch: 279158
Matrix: Soil	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC958830 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1-Methylnaphthalene	145.3	200.0	ug/Kg	73%		28-130
2-Methylnaphthalene	150.5	200.0	ug/Kg	75%		33-130
Naphthalene	156.9	200.0	ug/Kg	78%		25-130
Acenaphthylene	142.5	200.0	ug/Kg	71%		28-130
Acenaphthene	166.9	200.0	ug/Kg	83%		32-130
Fluorene	166.5	200.0	ug/Kg	83%		35-130
Phenanthrene	168.6	200.0	ug/Kg	84%		35-132
Anthracene	170.6	200.0	ug/Kg	85%		34-136
Fluoranthene	174.3	200.0	ug/Kg	87%		34-139
Pyrene	174.4	200.0	ug/Kg	87%		35-134
Benzo(a)anthracene	188.3	200.0	ug/Kg	94%		30-132
Chrysene	188.6	200.0	ug/Kg	94%		29-130
Benzo(b)fluoranthene	197.2	200.0	ug/Kg	99%		32-137
Benzo(k)fluoranthene	196.1	200.0	ug/Kg	98%		32-130
Benzo(a)pyrene	204.6	200.0	ug/Kg	102%		10-138
Indeno(1,2,3-cd)pyrene	150.6	200.0	ug/Kg	75%		34-132
Dibenz(a,h)anthracene	151.7	200.0	ug/Kg	76%		32-130
Benzo(g,h,i)perylene	154.0	200.0	ug/Kg	77%		27-130
Surrogates						
Nitrobenzene-d5	169.9	200.0	ug/Kg	85%		27-125
2-Fluorobiphenyl	150.0	200.0	ug/Kg	75%		30-120
Terphenyl-d14	158.8	200.0	ug/Kg	79%		33-155

Batch QC

Type: Matrix Spike	Lab ID: QC958831	Batch: 279158
Matrix (Source ID): Soil (454317-001)	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC958831 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
1-Methylnaphthalene	172.5	ND	200.0	ug/Kg	86%		25-130	5
2-Methylnaphthalene	155.9	ND	200.0	ug/Kg	78%		32-133	5
Naphthalene	167.7	ND	200.0	ug/Kg	84%		33-130	5
Acenaphthylene	161.6	ND	200.0	ug/Kg	81%		14-157	5
Acenaphthene	178.8	ND	200.0	ug/Kg	89%		28-134	5
Fluorene	179.0	ND	200.0	ug/Kg	90%		27-140	5
Phenanthrene	207.7	20.97	200.0	ug/Kg	93%		29-147	5
Anthracene	203.2	ND	200.0	ug/Kg	102%		24-156	5
Fluoranthene	258.9	44.79	200.0	ug/Kg	107%		28-160	5
Pyrene	262.5	47.14	200.0	ug/Kg	108%		26-153	5
Benzo(a)anthracene	223.7	ND	200.0	ug/Kg	112%		26-174	5
Chrysene	242.4	30.21	200.0	ug/Kg	106%		40-139	5
Benzo(b)fluoranthene	235.2	ND	200.0	ug/Kg	118%		36-164	5
Benzo(k)fluoranthene	237.9	20.41	200.0	ug/Kg	109%		36-161	5
Benzo(a)pyrene	250.5	23.79	200.0	ug/Kg	113%		18-173	5
Indeno(1,2,3-cd)pyrene	173.3	ND	200.0	ug/Kg	87%		26-154	5
Dibenz(a,h)anthracene	164.1	ND	200.0	ug/Kg	82%		38-132	5
Benzo(g,h,i)perylene	184.8	ND	200.0	ug/Kg	92%		36-130	5
Surrogates								
Nitrobenzene-d5	158.5		200.0	ug/Kg	79%		27-125	5
2-Fluorobiphenyl	157.5		200.0	ug/Kg	79%		30-120	5
Terphenyl-d14	180.4		200.0	ug/Kg	90%		33-155	5

Batch QC

Type: Matrix Spike Duplicate	Lab ID: QC958832	Batch: 279158
Matrix (Source ID): Soil (454317-001)	Method: EPA 8270C-SIM	Prep Method: EPA 3546

QC958832 Analyte	Result	Source Sample	Spiked	Units	Recovery	Qual	Limits	RPD		DF
		Result						RPD	Lim	
1-Methylnaphthalene	165.4	ND	200.0	ug/Kg	83%		25-130	4	35	5
2-Methylnaphthalene	151.9	ND	200.0	ug/Kg	76%		32-133	3	35	5
Naphthalene	160.6	ND	200.0	ug/Kg	80%		33-130	4	35	5
Acenaphthylene	151.6	ND	200.0	ug/Kg	76%		14-157	6	35	5
Acenaphthene	173.9	ND	200.0	ug/Kg	87%		28-134	3	35	5
Fluorene	169.6	ND	200.0	ug/Kg	85%		27-140	5	35	5
Phenanthrene	200.5	20.97	200.0	ug/Kg	90%		29-147	4	35	5
Anthracene	190.7	ND	200.0	ug/Kg	95%		24-156	6	35	5
Fluoranthene	243.5	44.79	200.0	ug/Kg	99%		28-160	6	35	5
Pyrene	240.5	47.14	200.0	ug/Kg	97%		26-153	9	35	5
Benzo(a)anthracene	215.3	ND	200.0	ug/Kg	108%		26-174	4	35	5
Chrysene	226.2	30.21	200.0	ug/Kg	98%		40-139	7	35	5
Benzo(b)fluoranthene	218.5	ND	200.0	ug/Kg	109%		36-164	7	35	5
Benzo(k)fluoranthene	223.0	20.41	200.0	ug/Kg	101%		36-161	6	35	5
Benzo(a)pyrene	229.0	23.79	200.0	ug/Kg	103%		18-173	9	35	5
Indeno(1,2,3-cd)pyrene	162.0	ND	200.0	ug/Kg	81%		26-154	7	35	5
Dibenz(a,h)anthracene	154.3	ND	200.0	ug/Kg	77%		38-132	6	35	5
Benzo(g,h,i)perylene	173.1	ND	200.0	ug/Kg	87%		36-130	7	35	5
Surrogates										
Nitrobenzene-d5	148.6		200.0	ug/Kg	74%		27-125			5
2-Fluorobiphenyl	152.3		200.0	ug/Kg	76%		30-120			5
Terphenyl-d14	170.1		200.0	ug/Kg	85%		33-155			5

Type: Blank	Lab ID: QC958855	Batch: 279164
Matrix: Soil	Method: EPA 8082	Prep Method: EPA 3546

QC958855 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Aroclor-1016	ND		ug/Kg	50	18	12/03/21	12/04/21
Aroclor-1221	ND		ug/Kg	50	14	12/03/21	12/04/21
Aroclor-1232	ND		ug/Kg	50	16	12/03/21	12/04/21
Aroclor-1242	ND		ug/Kg	50	14	12/03/21	12/04/21
Aroclor-1248	ND		ug/Kg	50	4.3	12/03/21	12/04/21
Aroclor-1254	ND		ug/Kg	50	6.1	12/03/21	12/04/21
Aroclor-1260	ND		ug/Kg	50	25	12/03/21	12/04/21
Aroclor-1262	ND		ug/Kg	50	16	12/03/21	12/04/21
Aroclor-1268	ND		ug/Kg	50	13	12/03/21	12/04/21
Surrogates				Limits			
Decachlorobiphenyl (PCB)	69%		%REC	19-121		12/03/21	12/04/21

Batch QC

Type: Lab Control Sample	Lab ID: QC958856	Batch: 279164
Matrix: Soil	Method: EPA 8082	Prep Method: EPA 3546

QC958856 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Aroclor-1016	368.0	500.0	ug/Kg	74%		14-150
Aroclor-1260	355.3	500.0	ug/Kg	71%		10-150
Surrogates						
Decachlorobiphenyl (PCB)	35.98	50.00	ug/Kg	72%		19-121

Type: Matrix Spike	Lab ID: QC958857	Batch: 279164
Matrix (Source ID): Soil (454317-001)	Method: EPA 8082	Prep Method: EPA 3546

QC958857 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Aroclor-1016	359.3	18.47	500.0	ug/Kg	68%		42-127	1
Aroclor-1260	321.9	ND	500.0	ug/Kg	64%		38-130	1
Surrogates								
Decachlorobiphenyl (PCB)	31.75		50.00	ug/Kg	64%		19-121	1

Type: Matrix Spike Duplicate	Lab ID: QC958858	Batch: 279164
Matrix (Source ID): Soil (454317-001)	Method: EPA 8082	Prep Method: EPA 3546

QC958858 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Aroclor-1016	294.5	18.47	500.0	ug/Kg	55%		42-127	20	30	1
Aroclor-1260	299.4	ND	500.0	ug/Kg	60%		38-130	7	30	1
Surrogates										
Decachlorobiphenyl (PCB)	28.93		50.00	ug/Kg	58%		19-121			1

Type: Blank	Lab ID: QC958940	Batch: 279190
Matrix: Soil	Method: EPA 8015M	Prep Method: EPA 3580

QC958940 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
DRO C10-C28	ND		mg/Kg	10	2.4	12/03/21	12/07/21
ORO C28-C44	3.8	J	mg/Kg	20	2.4	12/03/21	12/07/21
Surrogates				Limits			
n-Triacontane	102%		%REC	70-130		12/03/21	12/07/21

Batch QC

Type: Lab Control Sample	Lab ID: QC958941	Batch: 279190
Matrix: Soil	Method: EPA 8015M	Prep Method: EPA 3580

QC958941 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Diesel C10-C28	221.4	250.0	mg/Kg	89%		76-122
Surrogates						
n-Triacontane	10.13	10.00	mg/Kg	101%		70-130

Type: Matrix Spike	Lab ID: QC958942	Batch: 279190
Matrix (Source ID): Soil (454317-019)	Method: EPA 8015M	Prep Method: EPA 3580

QC958942 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Diesel C10-C28	228.3	15.33	250.0	mg/Kg	85%		62-126	1
Surrogates								
n-Triacontane	10.83		10.00	mg/Kg	108%		70-130	1

Type: Matrix Spike Duplicate	Lab ID: QC958943	Batch: 279190
Matrix (Source ID): Soil (454317-019)	Method: EPA 8015M	Prep Method: EPA 3580

QC958943 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Diesel C10-C28	220.9	15.33	250.0	mg/Kg	82%		62-126	3	35	1
Surrogates										
n-Triacontane	10.71		10.00	mg/Kg	107%		70-130			1

Type: Blank	Lab ID: QC958993	Batch: 279206
Matrix: Soil	Method: EPA 7471A	Prep Method: METHOD

QC958993 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Mercury	ND		mg/Kg	0.14	0.039	12/03/21	12/03/21

Type: Lab Control Sample	Lab ID: QC958994	Batch: 279206
Matrix: Soil	Method: EPA 7471A	Prep Method: METHOD

QC958994 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Mercury	0.8338	0.8333	mg/Kg	100%		80-120

Batch QC

Type: Matrix Spike	Lab ID: QC958995	Batch: 279206
Matrix (Source ID): Soil (454317-001)	Method: EPA 7471A	Prep Method: METHOD

QC958995 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Mercury	0.9302	0.1437	0.8621	mg/Kg	91%		75-125	1

Type: Matrix Spike Duplicate	Lab ID: QC958996	Batch: 279206
Matrix (Source ID): Soil (454317-001)	Method: EPA 7471A	Prep Method: METHOD

QC958996 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim	DF
Mercury	1.005	0.1437	0.9259	mg/Kg	93%		75-125	2	20	1.1

Batch QC

Type: Blank	Lab ID: QC959025	Batch: 279229
Matrix: Soil	Method: EPA 8260B	Prep Method: EPA 5030B

QC959025 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
3-Chloropropene	ND		ug/Kg	5.0	0.3	12/03/21	12/03/21
cis-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
trans-1,4-Dichloro-2-butene	ND		ug/Kg	5.0	0.9	12/03/21	12/03/21
Isopropyl Ether (DIPE)	ND		ug/Kg	5.0	0.3	12/03/21	12/03/21
Ethyl tert-Butyl Ether (ETBE)	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
Methyl tert-Amyl Ether (TAME)	ND		ug/Kg	5.0	0.7	12/03/21	12/03/21
tert-Butyl Alcohol (TBA)	ND		ug/Kg	10	8.8	12/03/21	12/03/21
Freon 12	ND		ug/Kg	5.0	0.4	12/03/21	12/03/21
Chloromethane	ND		ug/Kg	5.0	0.4	12/03/21	12/03/21
Vinyl Chloride	ND		ug/Kg	5.0	0.4	12/03/21	12/03/21
Bromomethane	ND		ug/Kg	5.0	0.3	12/03/21	12/03/21
Chloroethane	ND		ug/Kg	5.0	0.3	12/03/21	12/03/21
Trichlorofluoromethane	ND		ug/Kg	5.0	0.3	12/03/21	12/03/21
Acetone	ND		ug/Kg	100	25	12/03/21	12/03/21
Freon 113	ND		ug/Kg	5.0	0.7	12/03/21	12/03/21
1,1-Dichloroethene	ND		ug/Kg	5.0	0.2	12/03/21	12/03/21
Methylene Chloride	ND		ug/Kg	5.0	0.7	12/03/21	12/03/21
MTBE	ND		ug/Kg	5.0	0.4	12/03/21	12/03/21
trans-1,2-Dichloroethene	ND		ug/Kg	5.0	0.4	12/03/21	12/03/21
1,1-Dichloroethane	ND		ug/Kg	5.0	0.4	12/03/21	12/03/21
2-Butanone	ND		ug/Kg	100	3.2	12/03/21	12/03/21
cis-1,2-Dichloroethene	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
2,2-Dichloropropane	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
Chloroform	ND		ug/Kg	5.0	0.4	12/03/21	12/03/21
Bromochloromethane	ND		ug/Kg	5.0	0.4	12/03/21	12/03/21
1,1,1-Trichloroethane	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
1,1-Dichloropropene	ND		ug/Kg	5.0	0.4	12/03/21	12/03/21
Carbon Tetrachloride	ND		ug/Kg	5.0	0.3	12/03/21	12/03/21
1,2-Dichloroethane	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
Benzene	ND		ug/Kg	5.0	0.2	12/03/21	12/03/21
Trichloroethene	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
1,2-Dichloropropane	ND		ug/Kg	5.0	0.6	12/03/21	12/03/21
Bromodichloromethane	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
Dibromomethane	ND		ug/Kg	5.0	0.6	12/03/21	12/03/21
4-Methyl-2-Pentanone	ND		ug/Kg	5.0	1.9	12/03/21	12/03/21
cis-1,3-Dichloropropene	ND		ug/Kg	5.0	0.3	12/03/21	12/03/21
Toluene	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
trans-1,3-Dichloropropene	ND		ug/Kg	5.0	0.4	12/03/21	12/03/21
1,1,2-Trichloroethane	ND		ug/Kg	5.0	0.6	12/03/21	12/03/21
1,3-Dichloropropane	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
Tetrachloroethene	ND		ug/Kg	5.0	0.6	12/03/21	12/03/21
Dibromochloromethane	ND		ug/Kg	5.0	0.4	12/03/21	12/03/21

Batch QC

QC959025 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
1,2-Dibromoethane	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
Chlorobenzene	ND		ug/Kg	5.0	0.3	12/03/21	12/03/21
1,1,1,2-Tetrachloroethane	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
Ethylbenzene	ND		ug/Kg	5.0	0.4	12/03/21	12/03/21
m,p-Xylenes	ND		ug/Kg	10	0.8	12/03/21	12/03/21
o-Xylene	ND		ug/Kg	5.0	0.3	12/03/21	12/03/21
Styrene	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
Bromoform	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
Isopropylbenzene	ND		ug/Kg	5.0	0.4	12/03/21	12/03/21
1,1,2,2-Tetrachloroethane	ND		ug/Kg	5.0	0.4	12/03/21	12/03/21
1,2,3-Trichloropropane	ND		ug/Kg	5.0	0.7	12/03/21	12/03/21
Propylbenzene	ND		ug/Kg	5.0	0.4	12/03/21	12/03/21
Bromobenzene	ND		ug/Kg	5.0	0.3	12/03/21	12/03/21
1,3,5-Trimethylbenzene	ND		ug/Kg	5.0	0.4	12/03/21	12/03/21
2-Chlorotoluene	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
4-Chlorotoluene	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
tert-Butylbenzene	ND		ug/Kg	5.0	0.3	12/03/21	12/03/21
1,2,4-Trimethylbenzene	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
sec-Butylbenzene	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
para-Isopropyl Toluene	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
1,3-Dichlorobenzene	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
1,4-Dichlorobenzene	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
n-Butylbenzene	ND		ug/Kg	5.0	0.7	12/03/21	12/03/21
1,2-Dichlorobenzene	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
1,2-Dibromo-3-Chloropropane	ND		ug/Kg	5.0	0.6	12/03/21	12/03/21
1,2,4-Trichlorobenzene	ND		ug/Kg	5.0	0.9	12/03/21	12/03/21
Hexachlorobutadiene	ND		ug/Kg	5.0	0.6	12/03/21	12/03/21
Naphthalene	ND		ug/Kg	5.0	0.9	12/03/21	12/03/21
1,2,3-Trichlorobenzene	ND		ug/Kg	5.0	0.5	12/03/21	12/03/21
Xylene (total)	ND		ug/Kg	5.0		12/03/21	12/03/21
Surrogates				Limits			
Dibromofluoromethane	97%		%REC	70-130	1.3	12/03/21	12/03/21
1,2-Dichloroethane-d4	93%		%REC	70-145		12/03/21	12/03/21
Toluene-d8	100%		%REC	70-145		12/03/21	12/03/21
Bromofluorobenzene	104%		%REC	70-145	1.5	12/03/21	12/03/21

Batch QC

Type: Lab Control Sample	Lab ID: QC959026	Batch: 279229
Matrix: Soil	Method: EPA 8260B	Prep Method: EPA 5030B

QC959026 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,1-Dichloroethene	51.39	50.00	ug/Kg	103%		70-131
MTBE	52.03	50.00	ug/Kg	104%		69-130
Benzene	51.27	50.00	ug/Kg	103%		70-130
Trichloroethene	52.57	50.00	ug/Kg	105%		70-130
Toluene	50.31	50.00	ug/Kg	101%		70-130
Chlorobenzene	51.63	50.00	ug/Kg	103%		70-130
Surrogates						
Dibromofluoromethane	50.64	50.00	ug/Kg	101%		70-130
1,2-Dichloroethane-d4	48.84	50.00	ug/Kg	98%		70-145
Toluene-d8	49.67	50.00	ug/Kg	99%		70-145
Bromofluorobenzene	50.36	50.00	ug/Kg	101%		70-145

Type: Lab Control Sample Duplicate	Lab ID: QC959027	Batch: 279229
Matrix: Soil	Method: EPA 8260B	Prep Method: EPA 5030B

QC959027 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim
1,1-Dichloroethene	48.65	50.00	ug/Kg	97%		70-131	5	33
MTBE	49.14	50.00	ug/Kg	98%		69-130	6	30
Benzene	49.02	50.00	ug/Kg	98%		70-130	4	30
Trichloroethene	48.45	50.00	ug/Kg	97%		70-130	8	30
Toluene	47.32	50.00	ug/Kg	95%		70-130	6	30
Chlorobenzene	48.56	50.00	ug/Kg	97%		70-130	6	30
Surrogates								
Dibromofluoromethane	50.60	50.00	ug/Kg	101%		70-130		
1,2-Dichloroethane-d4	45.75	50.00	ug/Kg	91%		70-145		
Toluene-d8	48.98	50.00	ug/Kg	98%		70-145		
Bromofluorobenzene	50.61	50.00	ug/Kg	101%		70-145		

* Value is outside QC limits

J Estimated value

ND Not Detected



Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

Lab Job Number: 454424
Report Level: II
Report Date: 12/14/2021

Analytical Report *prepared for:*

Mike Pendergrass
Citadel EHS
2 Peters Canyon Road
Irvine, CA 92606

Location: 1396 Fifth Street, Oakland, CA

Authorized for release by:

Jim Lin, Service Center Manager
Jim.lin@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

Sample Summary

Mike Pendergrass

Citadel EHS

2 Peters Canyon Road

Irvine, CA 92606

Lab Job #: 454424

Location: 1396 Fifth Street, Oakland, CA

Date Received: 12/03/21

Sample ID	Lab ID	Collected	Matrix
B25-3V	454424-001	12/02/21 11:20	Air
B22-1.5V	454424-002	12/02/21 11:51	Air
B17-3.5V	454424-003	12/02/21 13:35	Air
B17-3.5VD	454424-004	12/02/21 13:35	Air
B18-1.5V	454424-005	12/02/21 14:17	Air
B27-2.5VD	454424-006	12/02/21 15:18	Air
B-27-2.5V	454424-007	12/02/21 10:55	Air
B-24-5V	454424-008	12/02/21 11:36	Air
B-20-5V	454424-011	12/02/21 13:55	Air

Case Narrative

Citadel EHS
2 Peters Canyon Road
Irvine, CA 92606
Mike Pendergrass

Lab Job Number: 454424
Location: 1396 Fifth Street, Oakland, CA
Date Received: 12/03/21

This data package contains sample and QC results for nine air samples, requested for the above referenced project on 12/03/21. The samples were received intact.

Volatile Organics in Air by MS (EPA TO-15):

High ICAL percent RSD (relative standard deviation) was observed for 1,2,4-trichlorobenzene in the calibration analyzed 12/06/21 15:19; affected data was qualified with "b". High responses were observed for 2-hexanone and 1,2,4-trichlorobenzene in the ICV analyzed 12/06/21 22:57; affected data was qualified with "b". High responses were observed for 2-hexanone and 1,2,4-trichlorobenzene in the CCV analyzed 12/09/21 10:37; affected data was qualified with "b". High recoveries were observed for 2-hexanone and 1,2,4-trichlorobenzene in the BS/BSD for batch 279529; the associated RPDs were within limits, and these analytes were not detected at or above the RL in the associated sample. No other analytical problems were encountered.

Volatile Organics in Air GC (ASTM D1946):

High recoveries were observed for methane in the BS/BSD for batch 279272; this analyte was not detected at or above the RL in the associated samples. No other analytical problems were encountered.

Volatile Organics in Air GC - TO3 (EPA TO-3M):

No analytical problems were encountered.



ENTHALPY ANALYTICAL

Air Chain of Custody Record

Lab No: 454424
 Page: 1 of 2

Turn Around Time (rush by advanced notice only)

Standard: X 5 Day: 3 Da,
 2 Day: 1 Day: Custom TAT:

Enthalpy Analytical - Berkeley
 2323 5th Street, Berkeley, CA 94710
 Phone 510-486-0900

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Citadel EHS	Name:	1396 Fifth Street
Report To:	Mike Pendergrass	Number:	
Email:	<u>mpendergrass@citadelehs.com</u>	P.O. #:	0849.1003
Address:	<u>2 Peters Canyon, Irvine, CA</u>	Address:	<u>1396 Fifth Street, Oakland, CA</u>
Phone:	818-296-9405	Global ID:	T10000017095
Fax:		Sampled By:	<u>Tim Lambert</u> Tim Larson

Special Instructions:

Sample ID	Type (I) Indoor (A) Ambient (SV) Soil Vapor (S) Source	Equipment Information			Sampling Information							Analysis Requested				
		Canister ID	Size (1L, 3L, 6L, 15L)	Flow Controller ID	Sample Start Date	Sample Start Time	Vacuum Start ("Hg)	Sample End Date	Sample End Time	Vacuum End ("Hg)	TO-15 SIM	TPHg TO-3	Fixed Gases/Heilium ASTM D1946			
1	B-27-2.5V SV	C10704	1L	A10001	12-2-21	1047	27	12-2-21	1055	5	X	X	X			
2	B-24-5V SV	C10082	1L	A10119	12-2-21	1119	30	12-2-21	1136	16	X	X	X	Low Flow		
3	B-23-1.5V SV	C10568	1L	A10199	12-2-21	1222	30	No Sample						Water		
4	B-23-1.5V Dup SV	C10350	1L	A10199	12-2-21	1222	30	No Sample						Water		
5	B-20-5V SV	C10359	1L	A10102	12-2-21	1342	30	12-2-21	1355	5	X	X	X			
6	B-19-3.5V SV	C10564	1L	A30003	12-2-21			Water	No Sample					Water		
7	SV		1L													
8	SV		1L													
9	SV		1L													
10	SV		1L													

	Signature	Print Name	Company / Title	Date / Time
¹ Relinquished By:	<i>Tim Lambert</i>	Tim Lambert	Citadel EHS	12-2-21 / 1532
¹ Received By:	<i>[Signature]</i>	NOPIA BAUGHMAN	EA	12/2/21 1552
² Relinquished By:	<i>[Signature]</i>	Miguel Gamboa	EA	12/2/21 1807
² Received By:	<i>[Signature]</i>	NICK G	EA	12/3/21 07:55 am
³ Relinquished By:				
³ Received By:				



ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Citadal EHS Project: 1396 Fifth Street

Date Received: 12/3/21 Sampler's Name Present: Yes No

Section 2

Sample(s) received in a cooler? Yes, How many? _____ NO (skip section 2) Sample Temp (°C) (No Cooler) : AMB

Sample Temp (°C), One from each cooler: #1: _____ #2: _____ #3: _____ #4: _____

(Acceptance range is <6°C but not frozen (for Microbiology samples, acceptance range is <10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: Ice Ice Packs Bubble Wrap Styrofoam

Paper None Other _____

Cooler Temp (°C): #1: _____ #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	<input checked="" type="checkbox"/>		
Are sample IDs present?	<input checked="" type="checkbox"/>		
Are sampling dates & times present?	<input checked="" type="checkbox"/>		
Is a relinquished signature present?	<input checked="" type="checkbox"/>		
Are the tests required clearly indicated on the COC?	<input checked="" type="checkbox"/>		
Are custody seals present?		<input checked="" type="checkbox"/>	
If custody seals are present, were they intact?			<input checked="" type="checkbox"/>
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			<input checked="" type="checkbox"/>
Did all samples arrive intact? If no, indicate in Section 4 below.	<input checked="" type="checkbox"/>		
Did all bottle labels agree with COC? (ID, dates and times)	<input checked="" type="checkbox"/>		
Were the samples collected in the correct containers for the required tests?	<input checked="" type="checkbox"/>		
Are the containers labeled with the correct preservatives?			<input checked="" type="checkbox"/>
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			<input checked="" type="checkbox"/>
Was a sufficient amount of sample submitted for the requested tests?	<input checked="" type="checkbox"/>		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? Verbal PM Initials: _____ Date/Time _____

Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: *ntcbl* Date: 12/3/21



**PACKAGE
EXPRESS**



A8647452B

LBLBC-GPX (REV 11/19)

ENTHALPY ANALYTICAL

Enthalpy Analytical - Berkeley

2323 5th Street, Berkeley, CA 94710

Phone 510-486-0900

Special Instructions:

Please Provide Results by Thursday, December 9th.

Air Chair of Custody Record
Lab No: 454424
Page: 1 of 2

Turn Around Time (rush by advanced notice only)
Standard: X 5 Day: 3 Da,
1 Day: Custom TAT:

CUSTOMER INFORMATION

Company: Citadel EHS
Report To: Mike Pendergrass
Email: mpendergrass@citadelehs.com
Address: 2 Peters Canyon, Irvine, CA
Phone: 818-296-9405
Fax:
Name: 1396 Fifth Street
Number:
P.O. #: 0849.1003
Address: 1396 Fifth Street, Oakland, CA
Global ID: T10000017095
Sampled By: Tim Lambert

PROJECT INFORMATION

Analysis Requested

TO-15 SIM
TPH on TO-3
Fixed Gases/Helium ASTM D1946

Sample ID	Type (I) Indoor (A) Ambient (SV) Soil Vapor (S) Source	Equipment Information			Sampling Information				Vacuum End ("Hg)
		Canister ID	Size (1L, 3L, 6L, 15L)	Flow Controller ID	Sample Start Date	Sample Start Time	Vacuum Start ("Hg)	Sample End Date	
B26-5V	SV	C10534	1L	A10056	12-2-21	11:12	12-2-21	11:20	-5"
B25-3V	SV	C10705	1L	A10063	12-2-21	11:45	12-2-21	11:51	-5"
B22-1.5V	SV	C10069	1L	A10200	12-2-21	13:11	12-2-21	13:35	-5"
B17-3.5V	SV	C10573	1L	A10022	12-2-21	13:11	12-2-21	13:35	-5"
B17-3.5VD	SV	C10581	1L	A10022	12-2-21	14:09	12-2-21	14:17	-5"
B16-1.5V	SV	C10793	1L	A10101	12-2-21	15:10	12-2-21	15:18	-4"
B27-5VD	SV	C10030	1L	A10201	12-2-21				
B27-2.5VD	SV		1L						
	SV		1L						
	SV		1L						

Signature	Print Name	Company / Title	Date / Time
<i>Tim Lambert</i>	Tim Lambert	Citadel EHS	12-2-21 / 15:52
<i>Miguel Gonzalez</i>	Miguel Gonzalez	EA	12/2/21 15:52
<i>Tim Lambert</i>	Tim Lambert	EA	12/2/21 16:07
<i>Tim Lambert</i>	Tim Lambert	EA	12/2/21 17:55

Analysis Results for 454424

Mike Pendergrass
Citadel EHS
2 Peters Canyon Road
Irvine, CA 92606

Lab Job #: 454424
Location: 1396 Fifth Street, Oakland, CA
Date Received: 12/03/21

Sample ID: B25-3V	Lab ID: 454424-001	Collected: 12/02/21 11:20
Matrix: Air		

454424-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946									
Prep Method: METHOD									
Helium	4.8		Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Helium	48,000		ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND		Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND		ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND		Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND		ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	19		Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	190,000		ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Methane	ND		Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Methane	ND		ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Nitrogen	76		Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Nitrogen	760,000		ppmv	2,000	2	279272	12/06/21	12/06/21	MPD

Method: EPA TO-15									
Prep Method: METHOD									
Freon 12	0.43		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Freon 12	2.1		ug/m3	2.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Freon 114	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Freon 114	ND		ug/m3	2.8	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Chloromethane	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Chloromethane	ND		ug/m3	0.83	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Vinyl Chloride	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Vinyl Chloride	ND		ug/m3	1.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Bromomethane	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Bromomethane	ND		ug/m3	1.6	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Chloroethane	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Chloroethane	ND		ug/m3	1.1	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Trichlorofluoromethane	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Trichlorofluoromethane	ND		ug/m3	2.2	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1-Dichloroethene	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1-Dichloroethene	ND		ug/m3	1.6	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Freon 113	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Freon 113	ND		ug/m3	3.1	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Acetone	20		ppbv	2.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Acetone	48		ug/m3	4.8	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Carbon Disulfide	3.5		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL

Analysis Results for 454424

454424-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Carbon Disulfide	11		ug/m3	1.2	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Isopropanol (IPA)	ND		ppbv	2.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Isopropanol (IPA)	ND		ug/m3	4.9	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Methylene Chloride	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Methylene Chloride	ND		ug/m3	1.4	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
trans-1,2-Dichloroethene	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
trans-1,2-Dichloroethene	ND		ug/m3	1.6	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
MTBE	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
MTBE	ND		ug/m3	1.4	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
n-Hexane	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
n-Hexane	ND		ug/m3	1.4	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1-Dichloroethane	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1-Dichloroethane	ND		ug/m3	1.6	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Vinyl Acetate	ND		ppbv	2.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Vinyl Acetate	ND		ug/m3	7.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
cis-1,2-Dichloroethene	2.8		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
cis-1,2-Dichloroethene	11		ug/m3	1.6	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
2-Butanone	2.2		ppbv	2.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
2-Butanone	6.4		ug/m3	5.9	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Chloroform	2.9		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Chloroform	14		ug/m3	2.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1,1-Trichloroethane	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1,1-Trichloroethane	ND		ug/m3	2.2	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Carbon Tetrachloride	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Carbon Tetrachloride	ND		ug/m3	2.5	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Benzene	1.0		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Benzene	3.2		ug/m3	1.3	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2-Dichloroethane	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2-Dichloroethane	ND		ug/m3	1.6	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Trichloroethene	0.77		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Trichloroethene	4.1		ug/m3	2.1	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2-Dichloropropane	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2-Dichloropropane	ND		ug/m3	1.8	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Bromodichloromethane	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Bromodichloromethane	ND		ug/m3	2.7	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
cis-1,3-Dichloropropene	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
cis-1,3-Dichloropropene	ND		ug/m3	1.8	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
4-Methyl-2-Pentanone	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
4-Methyl-2-Pentanone	ND		ug/m3	1.6	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Toluene	0.99		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Toluene	3.7		ug/m3	1.5	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
trans-1,3-Dichloropropene	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
trans-1,3-Dichloropropene	ND		ug/m3	1.8	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1,2-Trichloroethane	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1,2-Trichloroethane	ND		ug/m3	2.2	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Tetrachloroethene	14		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL

Analysis Results for 454424

454424-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Tetrachloroethene	93		ug/m3	2.7	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
2-Hexanone	ND		ppbv	1.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
2-Hexanone	ND		ug/m3	4.1	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Dibromochloromethane	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Dibromochloromethane	ND		ug/m3	3.4	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2-Dibromoethane	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2-Dibromoethane	ND		ug/m3	3.1	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Chlorobenzene	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Chlorobenzene	ND		ug/m3	1.8	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Ethylbenzene	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Ethylbenzene	ND		ug/m3	1.7	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
m,p-Xylenes	0.98		ppbv	0.80	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
m,p-Xylenes	4.2		ug/m3	3.5	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
o-Xylene	0.58		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
o-Xylene	2.5		ug/m3	1.7	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Styrene	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Styrene	ND		ug/m3	1.7	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Bromoform	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Bromoform	ND		ug/m3	4.1	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1,2,2-Tetrachloroethane	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.7	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1,1,2-Tetrachloroethane	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.7	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
4-Ethyltoluene	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
4-Ethyltoluene	ND		ug/m3	2.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,3,5-Trimethylbenzene	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,3,5-Trimethylbenzene	ND		ug/m3	2.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2,4-Trimethylbenzene	0.59		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2,4-Trimethylbenzene	2.9		ug/m3	2.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,3-Dichlorobenzene	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,3-Dichlorobenzene	ND		ug/m3	2.4	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,4-Dichlorobenzene	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,4-Dichlorobenzene	ND		ug/m3	2.4	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Benzyl chloride	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Benzyl chloride	ND		ug/m3	2.1	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2-Dichlorobenzene	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2-Dichlorobenzene	ND		ug/m3	2.4	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2,4-Trichlorobenzene	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
1,2,4-Trichlorobenzene	ND		ug/m3	3.0	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Hexachlorobutadiene	ND		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Hexachlorobutadiene	ND		ug/m3	4.3	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Xylene (total)	1.6		ppbv	0.40	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Xylene (total)	6.8		ug/m3	1.7	2	279485	12/08/21 22:58	12/08/21 22:58	DJL
Surrogates				Limits					
Bromofluorobenzene	100%		%REC	60-140	2	279485	12/08/21 22:58	12/08/21 22:58	DJL

Method: EPA TO-3M

Analysis Results for 454424

454424-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
TPH Gasoline	0.21		ppmv	0.10	4	279377	12/07/21 13:53	12/07/21 13:53	LJB
TPH Gasoline	860		ug/m3	410	4	279377	12/07/21 13:53	12/07/21 13:53	LJB

Analysis Results for 454424

Sample ID: B22-1.5V	Lab ID: 454424-002	Collected: 12/02/21 11:51
	Matrix: Air	

454424-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946									
Prep Method: METHOD									
Helium	5.1		Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Helium	51,000		ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND		Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND		ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND		Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND		ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	21		Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	210,000		ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Methane	ND		Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Methane	ND		ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Nitrogen	74		Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Nitrogen	740,000		ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Method: EPA TO-15									
Prep Method: METHOD									
Freon 12	0.58		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Freon 12	2.9		ug/m3	2.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Freon 114	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Freon 114	ND		ug/m3	2.8	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Chloromethane	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Chloromethane	ND		ug/m3	0.83	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Vinyl Chloride	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Vinyl Chloride	ND		ug/m3	1.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Bromomethane	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Bromomethane	ND		ug/m3	1.6	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Chloroethane	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Chloroethane	ND		ug/m3	1.1	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Trichlorofluoromethane	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Trichlorofluoromethane	ND		ug/m3	2.2	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1-Dichloroethene	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1-Dichloroethene	ND		ug/m3	1.6	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Freon 113	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Freon 113	ND		ug/m3	3.1	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Acetone	60		ppbv	2.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Acetone	140		ug/m3	4.8	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Carbon Disulfide	3.9		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Carbon Disulfide	12		ug/m3	1.2	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Isopropanol (IPA)	ND		ppbv	2.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Isopropanol (IPA)	ND		ug/m3	4.9	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Methylene Chloride	0.66		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Methylene Chloride	2.3		ug/m3	1.4	2	279485	12/08/21 23:47	12/08/21 23:47	DJL

Analysis Results for 454424

454424-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
trans-1,2-Dichloroethene	ND		ug/m3	1.6	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
MTBE	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
MTBE	ND		ug/m3	1.4	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
n-Hexane	1.4		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
n-Hexane	5.0		ug/m3	1.4	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1-Dichloroethane	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1-Dichloroethane	ND		ug/m3	1.6	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Vinyl Acetate	ND		ppbv	2.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Vinyl Acetate	ND		ug/m3	7.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
cis-1,2-Dichloroethene	0.68		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
cis-1,2-Dichloroethene	2.7		ug/m3	1.6	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
2-Butanone	5.3		ppbv	2.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
2-Butanone	16		ug/m3	5.9	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Chloroform	10		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Chloroform	51		ug/m3	2.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1,1-Trichloroethane	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1,1-Trichloroethane	ND		ug/m3	2.2	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Carbon Tetrachloride	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Carbon Tetrachloride	ND		ug/m3	2.5	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Benzene	2.8		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Benzene	9.0		ug/m3	1.3	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2-Dichloroethane	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2-Dichloroethane	ND		ug/m3	1.6	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Trichloroethene	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Trichloroethene	ND		ug/m3	2.1	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2-Dichloropropane	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2-Dichloropropane	ND		ug/m3	1.8	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Bromodichloromethane	0.89		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Bromodichloromethane	6.0		ug/m3	2.7	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
cis-1,3-Dichloropropene	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
cis-1,3-Dichloropropene	ND		ug/m3	1.8	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
4-Methyl-2-Pentanone	1.0		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
4-Methyl-2-Pentanone	4.1		ug/m3	1.6	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Toluene	2.0		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Toluene	7.6		ug/m3	1.5	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
trans-1,3-Dichloropropene	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
trans-1,3-Dichloropropene	ND		ug/m3	1.8	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1,2-Trichloroethane	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1,2-Trichloroethane	ND		ug/m3	2.2	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Tetrachloroethene	4.2		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Tetrachloroethene	28		ug/m3	2.7	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
2-Hexanone	ND		ppbv	1.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
2-Hexanone	ND		ug/m3	4.1	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Dibromochloromethane	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Dibromochloromethane	ND		ug/m3	3.4	2	279485	12/08/21 23:47	12/08/21 23:47	DJL

Analysis Results for 454424

454424-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dibromoethane	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2-Dibromoethane	ND		ug/m3	3.1	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Chlorobenzene	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Chlorobenzene	ND		ug/m3	1.8	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Ethylbenzene	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Ethylbenzene	ND		ug/m3	1.7	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
m,p-Xylenes	1.2		ppbv	0.80	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
m,p-Xylenes	5.0		ug/m3	3.5	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
o-Xylene	0.58		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
o-Xylene	2.5		ug/m3	1.7	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Styrene	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Styrene	ND		ug/m3	1.7	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Bromoform	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Bromoform	ND		ug/m3	4.1	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1,2,2-Tetrachloroethane	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.7	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1,1,2-Tetrachloroethane	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.7	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
4-Ethyltoluene	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
4-Ethyltoluene	ND		ug/m3	2.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,3,5-Trimethylbenzene	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,3,5-Trimethylbenzene	ND		ug/m3	2.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2,4-Trimethylbenzene	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2,4-Trimethylbenzene	ND		ug/m3	2.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,3-Dichlorobenzene	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,3-Dichlorobenzene	ND		ug/m3	2.4	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,4-Dichlorobenzene	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,4-Dichlorobenzene	ND		ug/m3	2.4	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Benzyl chloride	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Benzyl chloride	ND		ug/m3	2.1	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2-Dichlorobenzene	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2-Dichlorobenzene	ND		ug/m3	2.4	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2,4-Trichlorobenzene	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
1,2,4-Trichlorobenzene	ND		ug/m3	3.0	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Hexachlorobutadiene	ND		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Hexachlorobutadiene	ND		ug/m3	4.3	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Xylene (total)	1.7		ppbv	0.40	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Xylene (total)	7.5		ug/m3	1.7	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Surrogates				Limits					
Bromofluorobenzene	98%		%REC	60-140	2	279485	12/08/21 23:47	12/08/21 23:47	DJL
Method: EPA TO-3M									
TPH Gasoline	0.078		ppmv	0.050	2	279284	12/06/21 21:55	12/06/21 21:55	LJB
TPH Gasoline	320		ug/m3	200	2	279284	12/06/21 21:55	12/06/21 21:55	LJB

Analysis Results for 454424

Sample ID: B17-3.5V	Lab ID: 454424-003	Collected: 12/02/21 13:35
	Matrix: Air	

454424-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946									
Prep Method: METHOD									
Helium	0.51		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Helium	5,100		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	22		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	220,000		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	77		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	770,000		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Method: EPA TO-15									
Prep Method: METHOD									
Freon 12	0.50		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Freon 12	2.5		ug/m3	1.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Freon 114	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Freon 114	ND		ug/m3	2.5	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Chloromethane	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Chloromethane	ND		ug/m3	0.74	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Vinyl Chloride	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Vinyl Chloride	ND		ug/m3	0.92	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Bromomethane	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Bromomethane	ND		ug/m3	1.4	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Chloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Chloroethane	ND		ug/m3	0.95	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Trichlorofluoromethane	1.2		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Trichlorofluoromethane	7.0		ug/m3	2.0	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1-Dichloroethene	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1-Dichloroethene	ND		ug/m3	1.4	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Freon 113	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Freon 113	ND		ug/m3	2.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Acetone	29		ppbv	1.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Acetone	69		ug/m3	4.3	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Carbon Disulfide	3.5		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Carbon Disulfide	11		ug/m3	1.1	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Isopropanol (IPA)	3.0		ppbv	1.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Isopropanol (IPA)	7.4		ug/m3	4.4	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Methylene Chloride	0.52		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Methylene Chloride	1.8		ug/m3	1.3	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL

Analysis Results for 454424

454424-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
trans-1,2-Dichloroethene	ND		ug/m3	1.4	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
MTBE	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
MTBE	ND		ug/m3	1.3	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
n-Hexane	11		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
n-Hexane	40		ug/m3	1.3	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1-Dichloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1-Dichloroethane	ND		ug/m3	1.5	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Vinyl Acetate	ND		ppbv	1.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Vinyl Acetate	ND		ug/m3	6.3	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
cis-1,2-Dichloroethene	0.56		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
cis-1,2-Dichloroethene	2.2		ug/m3	1.4	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
2-Butanone	7.6		ppbv	1.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
2-Butanone	22		ug/m3	5.3	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Chloroform	4.4		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Chloroform	21		ug/m3	1.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1,1-Trichloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1,1-Trichloroethane	ND		ug/m3	2.0	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Carbon Tetrachloride	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Carbon Tetrachloride	ND		ug/m3	2.3	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Benzene	2.9		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Benzene	9.3		ug/m3	1.2	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2-Dichloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2-Dichloroethane	ND		ug/m3	1.5	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Trichloroethene	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Trichloroethene	ND		ug/m3	1.9	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2-Dichloropropane	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2-Dichloropropane	ND		ug/m3	1.7	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Bromodichloromethane	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Bromodichloromethane	ND		ug/m3	2.4	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
cis-1,3-Dichloropropene	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
cis-1,3-Dichloropropene	ND		ug/m3	1.6	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
4-Methyl-2-Pentanone	0.69		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
4-Methyl-2-Pentanone	2.8		ug/m3	1.5	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Toluene	2.4		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Toluene	9.1		ug/m3	1.4	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
trans-1,3-Dichloropropene	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
trans-1,3-Dichloropropene	ND		ug/m3	1.6	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1,2-Trichloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1,2-Trichloroethane	ND		ug/m3	2.0	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Tetrachloroethene	2.1		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Tetrachloroethene	14		ug/m3	2.4	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
2-Hexanone	ND		ppbv	0.90	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
2-Hexanone	ND		ug/m3	3.7	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Dibromochloromethane	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Dibromochloromethane	ND		ug/m3	3.1	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL

Analysis Results for 454424

454424-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dibromoethane	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2-Dibromoethane	ND		ug/m3	2.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Chlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Chlorobenzene	ND		ug/m3	1.7	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Ethylbenzene	0.93		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Ethylbenzene	4.0		ug/m3	1.6	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
m,p-Xylenes	1.9		ppbv	0.72	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
m,p-Xylenes	8.1		ug/m3	3.1	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
o-Xylene	0.79		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
o-Xylene	3.4		ug/m3	1.6	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Styrene	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Styrene	ND		ug/m3	1.5	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Bromoform	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Bromoform	ND		ug/m3	3.7	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1,2,2-Tetrachloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.5	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1,1,2-Tetrachloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.5	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
4-Ethyltoluene	0.45		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
4-Ethyltoluene	2.2		ug/m3	1.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,3,5-Trimethylbenzene	0.74		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,3,5-Trimethylbenzene	3.6		ug/m3	1.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2,4-Trimethylbenzene	1.1		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2,4-Trimethylbenzene	5.6		ug/m3	1.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,3-Dichlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,3-Dichlorobenzene	ND		ug/m3	2.2	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,4-Dichlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,4-Dichlorobenzene	ND		ug/m3	2.2	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Benzyl chloride	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Benzyl chloride	ND		ug/m3	1.9	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2-Dichlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2-Dichlorobenzene	ND		ug/m3	2.2	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2,4-Trichlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
1,2,4-Trichlorobenzene	ND		ug/m3	2.7	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Hexachlorobutadiene	ND		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Hexachlorobutadiene	ND		ug/m3	3.8	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Xylene (total)	2.7		ppbv	0.36	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Xylene (total)	12		ug/m3	1.6	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Surrogates				Limits					
Bromofluorobenzene	101%		%REC	60-140	1.8	279485	12/09/21 00:36	12/09/21 00:36	DJL
Method: EPA TO-3M									
TPH Gasoline	0.76		ppmv	0.045	1.8	279284	12/06/21 22:51	12/06/21 22:51	LJB
TPH Gasoline	3,100		ug/m3	180	1.8	279284	12/06/21 22:51	12/06/21 22:51	LJB

Analysis Results for 454424

Sample ID: B17-3.5VD	Lab ID: 454424-004	Collected: 12/02/21 13:35
Matrix: Air		

454424-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946									
Prep Method: METHOD									
Helium	0.43		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Helium	4,300		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	22		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	220,000		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	77		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	770,000		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Method: EPA TO-15									
Prep Method: METHOD									
Freon 12	0.49		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Freon 12	2.4		ug/m3	1.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Freon 114	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Freon 114	ND		ug/m3	2.5	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Chloromethane	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Chloromethane	ND		ug/m3	0.74	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Vinyl Chloride	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Vinyl Chloride	ND		ug/m3	0.92	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Bromomethane	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Bromomethane	ND		ug/m3	1.4	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Chloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Chloroethane	ND		ug/m3	0.95	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Trichlorofluoromethane	1.3		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Trichlorofluoromethane	7.2		ug/m3	2.0	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1-Dichloroethene	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1-Dichloroethene	ND		ug/m3	1.4	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Freon 113	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Freon 113	ND		ug/m3	2.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Acetone	36		ppbv	1.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Acetone	87		ug/m3	4.3	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Carbon Disulfide	3.3		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Carbon Disulfide	10		ug/m3	1.1	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Isopropanol (IPA)	3.0		ppbv	1.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Isopropanol (IPA)	7.5		ug/m3	4.4	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Methylene Chloride	0.39		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Methylene Chloride	1.4		ug/m3	1.3	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL

Analysis Results for 454424

454424-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
trans-1,2-Dichloroethene	ND		ug/m3	1.4	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
MTBE	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
MTBE	ND		ug/m3	1.3	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
n-Hexane	3.3		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
n-Hexane	11		ug/m3	1.3	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1-Dichloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1-Dichloroethane	ND		ug/m3	1.5	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Vinyl Acetate	ND		ppbv	1.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Vinyl Acetate	ND		ug/m3	6.3	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
cis-1,2-Dichloroethene	0.51		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
cis-1,2-Dichloroethene	2.0		ug/m3	1.4	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
2-Butanone	4.2		ppbv	1.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
2-Butanone	12		ug/m3	5.3	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Chloroform	4.4		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Chloroform	22		ug/m3	1.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1,1-Trichloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1,1-Trichloroethane	ND		ug/m3	2.0	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Carbon Tetrachloride	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Carbon Tetrachloride	ND		ug/m3	2.3	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Benzene	2.9		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Benzene	9.2		ug/m3	1.2	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2-Dichloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2-Dichloroethane	ND		ug/m3	1.5	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Trichloroethene	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Trichloroethene	ND		ug/m3	1.9	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2-Dichloropropane	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2-Dichloropropane	ND		ug/m3	1.7	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Bromodichloromethane	0.65		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Bromodichloromethane	4.4		ug/m3	2.4	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
cis-1,3-Dichloropropene	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
cis-1,3-Dichloropropene	ND		ug/m3	1.6	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
4-Methyl-2-Pentanone	0.62		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
4-Methyl-2-Pentanone	2.5		ug/m3	1.5	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Toluene	2.5		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Toluene	9.4		ug/m3	1.4	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
trans-1,3-Dichloropropene	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
trans-1,3-Dichloropropene	ND		ug/m3	1.6	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1,2-Trichloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1,2-Trichloroethane	ND		ug/m3	2.0	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Tetrachloroethene	1.9		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Tetrachloroethene	13		ug/m3	2.4	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
2-Hexanone	ND		ppbv	0.90	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
2-Hexanone	ND		ug/m3	3.7	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Dibromochloromethane	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Dibromochloromethane	ND		ug/m3	3.1	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL

Analysis Results for 454424

454424-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dibromoethane	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2-Dibromoethane	ND		ug/m3	2.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Chlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Chlorobenzene	ND		ug/m3	1.7	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Ethylbenzene	0.52		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Ethylbenzene	2.2		ug/m3	1.6	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
m,p-Xylenes	1.6		ppbv	0.72	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
m,p-Xylenes	6.9		ug/m3	3.1	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
o-Xylene	0.71		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
o-Xylene	3.1		ug/m3	1.6	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Styrene	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Styrene	ND		ug/m3	1.5	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Bromoform	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Bromoform	ND		ug/m3	3.7	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1,2,2-Tetrachloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.5	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1,1,2-Tetrachloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.5	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
4-Ethyltoluene	0.40		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
4-Ethyltoluene	2.0		ug/m3	1.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,3,5-Trimethylbenzene	0.71		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,3,5-Trimethylbenzene	3.5		ug/m3	1.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2,4-Trimethylbenzene	1.1		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2,4-Trimethylbenzene	5.2		ug/m3	1.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,3-Dichlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,3-Dichlorobenzene	ND		ug/m3	2.2	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,4-Dichlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,4-Dichlorobenzene	ND		ug/m3	2.2	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Benzyl chloride	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Benzyl chloride	ND		ug/m3	1.9	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2-Dichlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2-Dichlorobenzene	ND		ug/m3	2.2	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2,4-Trichlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
1,2,4-Trichlorobenzene	ND		ug/m3	2.7	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Hexachlorobutadiene	ND		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Hexachlorobutadiene	ND		ug/m3	3.8	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Xylene (total)	2.3		ppbv	0.36	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Xylene (total)	10		ug/m3	1.6	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Surrogates				Limits					
Bromofluorobenzene	102%		%REC	60-140	1.8	279485	12/09/21 01:25	12/09/21 01:25	DJL
Method: EPA TO-3M									
TPH Gasoline	0.45		ppmv	0.045	1.8	279284	12/06/21 23:19	12/06/21 23:19	LJB
TPH Gasoline	1,800		ug/m3	180	1.8	279284	12/06/21 23:19	12/06/21 23:19	LJB

Analysis Results for 454424

Sample ID: B18-1.5V	Lab ID: 454424-005	Collected: 12/02/21 14:17
	Matrix: Air	

454424-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946									
Prep Method: METHOD									
Helium	0.61		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Helium	6,100		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	22		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	220,000		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	77		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	770,000		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Method: EPA TO-15									
Prep Method: METHOD									
Freon 12	0.56		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Freon 12	2.8		ug/m3	1.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Freon 114	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Freon 114	ND		ug/m3	2.5	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Chloromethane	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Chloromethane	ND		ug/m3	0.74	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Vinyl Chloride	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Vinyl Chloride	ND		ug/m3	0.92	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Bromomethane	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Bromomethane	ND		ug/m3	1.4	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Chloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Chloroethane	ND		ug/m3	0.95	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Trichlorofluoromethane	0.87		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Trichlorofluoromethane	4.9		ug/m3	2.0	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1-Dichloroethene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1-Dichloroethene	ND		ug/m3	1.4	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Freon 113	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Freon 113	ND		ug/m3	2.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Acetone	12		ppbv	1.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Acetone	28		ug/m3	4.3	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Carbon Disulfide	2.3		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Carbon Disulfide	7.2		ug/m3	1.1	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Isopropanol (IPA)	1.9		ppbv	1.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Isopropanol (IPA)	4.6		ug/m3	4.4	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Methylene Chloride	0.52		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Methylene Chloride	1.8		ug/m3	1.3	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL

Analysis Results for 454424

454424-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
trans-1,2-Dichloroethene	ND		ug/m3	1.4	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
MTBE	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
MTBE	ND		ug/m3	1.3	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
n-Hexane	0.69		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
n-Hexane	2.4		ug/m3	1.3	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1-Dichloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1-Dichloroethane	ND		ug/m3	1.5	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Vinyl Acetate	ND		ppbv	1.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Vinyl Acetate	ND		ug/m3	6.3	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
cis-1,2-Dichloroethene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
cis-1,2-Dichloroethene	ND		ug/m3	1.4	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
2-Butanone	ND		ppbv	1.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
2-Butanone	ND		ug/m3	5.3	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Chloroform	23		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Chloroform	110		ug/m3	1.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1,1-Trichloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1,1-Trichloroethane	ND		ug/m3	2.0	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Carbon Tetrachloride	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Carbon Tetrachloride	ND		ug/m3	2.3	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Benzene	0.84		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Benzene	2.7		ug/m3	1.2	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2-Dichloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2-Dichloroethane	ND		ug/m3	1.5	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Trichloroethene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Trichloroethene	ND		ug/m3	1.9	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2-Dichloropropane	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2-Dichloropropane	ND		ug/m3	1.7	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Bromodichloromethane	0.83		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Bromodichloromethane	5.5		ug/m3	2.4	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
cis-1,3-Dichloropropene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
cis-1,3-Dichloropropene	ND		ug/m3	1.6	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
4-Methyl-2-Pentanone	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
4-Methyl-2-Pentanone	ND		ug/m3	1.5	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Toluene	0.70		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Toluene	2.6		ug/m3	1.4	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
trans-1,3-Dichloropropene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
trans-1,3-Dichloropropene	ND		ug/m3	1.6	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1,2-Trichloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1,2-Trichloroethane	ND		ug/m3	2.0	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Tetrachloroethene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Tetrachloroethene	ND		ug/m3	2.4	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
2-Hexanone	ND		ppbv	0.90	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
2-Hexanone	ND		ug/m3	3.7	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Dibromochloromethane	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Dibromochloromethane	ND		ug/m3	3.1	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL

Analysis Results for 454424

454424-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dibromoethane	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2-Dibromoethane	ND		ug/m3	2.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Chlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Chlorobenzene	ND		ug/m3	1.7	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Ethylbenzene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Ethylbenzene	ND		ug/m3	1.6	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
m,p-Xylenes	ND		ppbv	0.72	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
m,p-Xylenes	ND		ug/m3	3.1	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
o-Xylene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
o-Xylene	ND		ug/m3	1.6	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Styrene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Styrene	ND		ug/m3	1.5	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Bromoform	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Bromoform	ND		ug/m3	3.7	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1,2,2-Tetrachloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.5	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1,1,2-Tetrachloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.5	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
4-Ethyltoluene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
4-Ethyltoluene	ND		ug/m3	1.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,3,5-Trimethylbenzene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,3,5-Trimethylbenzene	ND		ug/m3	1.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2,4-Trimethylbenzene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2,4-Trimethylbenzene	ND		ug/m3	1.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,3-Dichlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,3-Dichlorobenzene	ND		ug/m3	2.2	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,4-Dichlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,4-Dichlorobenzene	ND		ug/m3	2.2	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Benzyl chloride	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Benzyl chloride	ND		ug/m3	1.9	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2-Dichlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2-Dichlorobenzene	ND		ug/m3	2.2	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2,4-Trichlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
1,2,4-Trichlorobenzene	ND		ug/m3	2.7	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Hexachlorobutadiene	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Hexachlorobutadiene	ND		ug/m3	3.8	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Xylene (total)	ND		ppbv	0.36	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Xylene (total)	ND		ug/m3	1.6	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Surrogates				Limits					
Bromofluorobenzene	99%		%REC	60-140	1.8	279485	12/09/21 02:15	12/09/21 02:15	DJL
Method: EPA TO-3M									
TPH Gasoline	0.14		ppmv	0.045	1.8	279284	12/06/21 23:48	12/06/21 23:48	LJB
TPH Gasoline	580		ug/m3	180	1.8	279284	12/06/21 23:48	12/06/21 23:48	LJB

Analysis Results for 454424

Sample ID: B27-2.5VD	Lab ID: 454424-006	Collected: 12/02/21 15:18
Matrix: Air		

454424-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946									
Prep Method: METHOD									
Helium	0.20		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Helium	2,000		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	19		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	190,000		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	81		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	810,000		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Method: EPA TO-15									
Prep Method: METHOD									
Freon 12	0.56		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Freon 12	2.8		ug/m3	1.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Freon 114	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Freon 114	ND		ug/m3	2.5	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Chloromethane	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Chloromethane	ND		ug/m3	0.74	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Vinyl Chloride	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Vinyl Chloride	ND		ug/m3	0.92	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Bromomethane	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Bromomethane	ND		ug/m3	1.4	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Chloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Chloroethane	ND		ug/m3	0.95	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Trichlorofluoromethane	0.69		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Trichlorofluoromethane	3.9		ug/m3	2.0	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1-Dichloroethene	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1-Dichloroethene	ND		ug/m3	1.4	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Freon 113	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Freon 113	ND		ug/m3	2.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Acetone	19		ppbv	1.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Acetone	44		ug/m3	4.3	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Carbon Disulfide	7.5		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Carbon Disulfide	23		ug/m3	1.1	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Isopropanol (IPA)	ND		ppbv	1.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Isopropanol (IPA)	ND		ug/m3	4.4	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Methylene Chloride	0.57		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Methylene Chloride	2.0		ug/m3	1.3	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL

Analysis Results for 454424

454424-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
trans-1,2-Dichloroethene	ND		ug/m3	1.4	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
MTBE	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
MTBE	ND		ug/m3	1.3	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
n-Hexane	2.6		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
n-Hexane	9.0		ug/m3	1.3	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1-Dichloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1-Dichloroethane	ND		ug/m3	1.5	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Vinyl Acetate	ND		ppbv	1.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Vinyl Acetate	ND		ug/m3	6.3	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
cis-1,2-Dichloroethene	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
cis-1,2-Dichloroethene	ND		ug/m3	1.4	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
2-Butanone	2.0		ppbv	1.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
2-Butanone	6.0		ug/m3	5.3	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Chloroform	3.9		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Chloroform	19		ug/m3	1.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1,1-Trichloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1,1-Trichloroethane	ND		ug/m3	2.0	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Carbon Tetrachloride	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Carbon Tetrachloride	ND		ug/m3	2.3	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Benzene	1.8		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Benzene	5.9		ug/m3	1.2	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2-Dichloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2-Dichloroethane	ND		ug/m3	1.5	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Trichloroethene	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Trichloroethene	ND		ug/m3	1.9	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2-Dichloropropane	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2-Dichloropropane	ND		ug/m3	1.7	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Bromodichloromethane	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Bromodichloromethane	ND		ug/m3	2.4	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
cis-1,3-Dichloropropene	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
cis-1,3-Dichloropropene	ND		ug/m3	1.6	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
4-Methyl-2-Pentanone	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
4-Methyl-2-Pentanone	ND		ug/m3	1.5	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Toluene	1.9		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Toluene	7.1		ug/m3	1.4	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
trans-1,3-Dichloropropene	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
trans-1,3-Dichloropropene	ND		ug/m3	1.6	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1,2-Trichloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1,2-Trichloroethane	ND		ug/m3	2.0	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Tetrachloroethene	1.3		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Tetrachloroethene	8.8		ug/m3	2.4	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
2-Hexanone	ND		ppbv	0.90	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
2-Hexanone	ND		ug/m3	3.7	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Dibromochloromethane	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Dibromochloromethane	ND		ug/m3	3.1	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL

Analysis Results for 454424

454424-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dibromoethane	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2-Dibromoethane	ND		ug/m3	2.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Chlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Chlorobenzene	ND		ug/m3	1.7	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Ethylbenzene	0.36		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Ethylbenzene	1.6		ug/m3	1.6	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
m,p-Xylenes	1.2		ppbv	0.72	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
m,p-Xylenes	5.4		ug/m3	3.1	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
o-Xylene	0.57		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
o-Xylene	2.5		ug/m3	1.6	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Styrene	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Styrene	ND		ug/m3	1.5	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Bromoform	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Bromoform	ND		ug/m3	3.7	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1,2,2-Tetrachloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.5	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1,1,2-Tetrachloroethane	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.5	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
4-Ethyltoluene	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
4-Ethyltoluene	ND		ug/m3	1.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,3,5-Trimethylbenzene	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,3,5-Trimethylbenzene	ND		ug/m3	1.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2,4-Trimethylbenzene	0.63		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2,4-Trimethylbenzene	3.1		ug/m3	1.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,3-Dichlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,3-Dichlorobenzene	ND		ug/m3	2.2	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,4-Dichlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,4-Dichlorobenzene	ND		ug/m3	2.2	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Benzyl chloride	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Benzyl chloride	ND		ug/m3	1.9	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2-Dichlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2-Dichlorobenzene	ND		ug/m3	2.2	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2,4-Trichlorobenzene	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
1,2,4-Trichlorobenzene	ND		ug/m3	2.7	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Hexachlorobutadiene	ND		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Hexachlorobutadiene	ND		ug/m3	3.8	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Xylene (total)	1.8		ppbv	0.36	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Xylene (total)	7.9		ug/m3	1.6	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Surrogates				Limits					
Bromofluorobenzene	98%		%REC	60-140	1.8	279485	12/09/21 03:04	12/09/21 03:04	DJL
Method: EPA TO-3M									
TPH Gasoline	0.36		ppmv	0.045	1.8	279284	12/07/21 00:16	12/07/21 00:16	LJB
TPH Gasoline	1,500		ug/m3	180	1.8	279284	12/07/21 00:16	12/07/21 00:16	LJB

Analysis Results for 454424

Sample ID: B-27-2.5V	Lab ID: 454424-007	Collected: 12/02/21 10:55
Matrix: Air		

454424-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946									
Prep Method: METHOD									
Helium	ND		Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Helium	ND		ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND		Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND		ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND		Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND		ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	19		Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	190,000		ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Methane	ND		Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Methane	ND		ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Nitrogen	81		Mol %	0.20	2	279272	12/06/21	12/06/21	MPD
Nitrogen	810,000		ppmv	2,000	2	279272	12/06/21	12/06/21	MPD
Method: EPA TO-15									
Prep Method: METHOD									
Freon 12	0.55		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Freon 12	2.7		ug/m3	2.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Freon 114	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Freon 114	ND		ug/m3	2.8	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Chloromethane	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Chloromethane	ND		ug/m3	0.83	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Vinyl Chloride	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Vinyl Chloride	ND		ug/m3	1.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Bromomethane	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Bromomethane	ND		ug/m3	1.6	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Chloroethane	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Chloroethane	ND		ug/m3	1.1	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Trichlorofluoromethane	0.63		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Trichlorofluoromethane	3.5		ug/m3	2.2	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1-Dichloroethene	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1-Dichloroethene	ND		ug/m3	1.6	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Freon 113	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Freon 113	ND		ug/m3	3.1	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Acetone	14		ppbv	2.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Acetone	33		ug/m3	4.8	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Carbon Disulfide	5.4		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Carbon Disulfide	17		ug/m3	1.2	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Isopropanol (IPA)	ND		ppbv	2.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Isopropanol (IPA)	ND		ug/m3	4.9	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Methylene Chloride	0.48		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Methylene Chloride	1.7		ug/m3	1.4	2	279485	12/09/21 03:53	12/09/21 03:53	DJL

Analysis Results for 454424

454424-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
trans-1,2-Dichloroethene	ND		ug/m3	1.6	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
MTBE	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
MTBE	ND		ug/m3	1.4	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
n-Hexane	1.9		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
n-Hexane	6.7		ug/m3	1.4	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1-Dichloroethane	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1-Dichloroethane	ND		ug/m3	1.6	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Vinyl Acetate	ND		ppbv	2.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Vinyl Acetate	ND		ug/m3	7.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
cis-1,2-Dichloroethene	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
cis-1,2-Dichloroethene	ND		ug/m3	1.6	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
2-Butanone	ND		ppbv	2.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
2-Butanone	ND		ug/m3	5.9	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Chloroform	3.2		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Chloroform	16		ug/m3	2.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1,1-Trichloroethane	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1,1-Trichloroethane	ND		ug/m3	2.2	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Carbon Tetrachloride	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Carbon Tetrachloride	ND		ug/m3	2.5	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Benzene	1.7		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Benzene	5.5		ug/m3	1.3	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2-Dichloroethane	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2-Dichloroethane	ND		ug/m3	1.6	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Trichloroethene	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Trichloroethene	ND		ug/m3	2.1	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2-Dichloropropane	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2-Dichloropropane	ND		ug/m3	1.8	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Bromodichloromethane	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Bromodichloromethane	ND		ug/m3	2.7	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
cis-1,3-Dichloropropene	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
cis-1,3-Dichloropropene	ND		ug/m3	1.8	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
4-Methyl-2-Pentanone	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
4-Methyl-2-Pentanone	ND		ug/m3	1.6	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Toluene	1.6		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Toluene	5.9		ug/m3	1.5	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
trans-1,3-Dichloropropene	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
trans-1,3-Dichloropropene	ND		ug/m3	1.8	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1,2-Trichloroethane	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1,2-Trichloroethane	ND		ug/m3	2.2	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Tetrachloroethene	0.83		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Tetrachloroethene	5.6		ug/m3	2.7	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
2-Hexanone	ND		ppbv	1.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
2-Hexanone	ND		ug/m3	4.1	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Dibromochloromethane	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Dibromochloromethane	ND		ug/m3	3.4	2	279485	12/09/21 03:53	12/09/21 03:53	DJL

Analysis Results for 454424

454424-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dibromoethane	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2-Dibromoethane	ND		ug/m3	3.1	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Chlorobenzene	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Chlorobenzene	ND		ug/m3	1.8	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Ethylbenzene	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Ethylbenzene	ND		ug/m3	1.7	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
m,p-Xylenes	1.0		ppbv	0.80	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
m,p-Xylenes	4.4		ug/m3	3.5	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
o-Xylene	0.47		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
o-Xylene	2.0		ug/m3	1.7	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Styrene	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Styrene	ND		ug/m3	1.7	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Bromoform	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Bromoform	ND		ug/m3	4.1	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1,2,2-Tetrachloroethane	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.7	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1,1,2-Tetrachloroethane	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.7	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
4-Ethyltoluene	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
4-Ethyltoluene	ND		ug/m3	2.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,3,5-Trimethylbenzene	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,3,5-Trimethylbenzene	ND		ug/m3	2.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2,4-Trimethylbenzene	0.66		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2,4-Trimethylbenzene	3.3		ug/m3	2.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,3-Dichlorobenzene	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,3-Dichlorobenzene	ND		ug/m3	2.4	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,4-Dichlorobenzene	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,4-Dichlorobenzene	ND		ug/m3	2.4	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Benzyl chloride	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Benzyl chloride	ND		ug/m3	2.1	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2-Dichlorobenzene	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2-Dichlorobenzene	ND		ug/m3	2.4	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2,4-Trichlorobenzene	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
1,2,4-Trichlorobenzene	ND		ug/m3	3.0	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Hexachlorobutadiene	ND		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Hexachlorobutadiene	ND		ug/m3	4.3	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Xylene (total)	1.5		ppbv	0.40	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Xylene (total)	6.4		ug/m3	1.7	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Surrogates				Limits					
Bromofluorobenzene	99%		%REC	60-140	2	279485	12/09/21 03:53	12/09/21 03:53	DJL
Method: EPA TO-3M									
TPH Gasoline	0.31		ppmv	0.050	2	279284	12/07/21 00:44	12/07/21 00:44	LJB
TPH Gasoline	1,300		ug/m3	200	2	279284	12/07/21 00:44	12/07/21 00:44	LJB

Analysis Results for 454424

Sample ID: B-24-5V	Lab ID: 454424-008	Collected: 12/02/21 11:36
Matrix: Air		

454424-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946									
Prep Method: METHOD									
Helium	ND		Mol %	0.30	3	279383	12/07/21	12/07/21	MPD
Helium	ND		ppmv	3,000	3	279383	12/07/21	12/07/21	MPD
Carbon Monoxide	ND		Mol %	0.30	3	279383	12/07/21	12/07/21	MPD
Carbon Monoxide	ND		ppmv	3,000	3	279383	12/07/21	12/07/21	MPD
Carbon Dioxide	ND		Mol %	0.30	3	279383	12/07/21	12/07/21	MPD
Carbon Dioxide	ND		ppmv	3,000	3	279383	12/07/21	12/07/21	MPD
Oxygen/Argon	12		Mol %	0.30	3	279383	12/07/21	12/07/21	MPD
Oxygen/Argon	120,000		ppmv	3,000	3	279383	12/07/21	12/07/21	MPD
Methane	0.66		Mol %	0.30	3	279383	12/07/21	12/07/21	MPD
Methane	6,600		ppmv	3,000	3	279383	12/07/21	12/07/21	MPD
Nitrogen	88		Mol %	0.30	3	279383	12/07/21	12/07/21	MPD
Nitrogen	880,000		ppmv	3,000	3	279383	12/07/21	12/07/21	MPD
Method: EPA TO-15									
Prep Method: METHOD									
Freon 12	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Freon 12	ND		ug/m3	3.0	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Freon 114	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Freon 114	ND		ug/m3	4.2	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Chloromethane	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Chloromethane	ND		ug/m3	1.2	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Vinyl Chloride	0.96		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Vinyl Chloride	2.5		ug/m3	1.5	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Bromomethane	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Bromomethane	ND		ug/m3	2.3	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Chloroethane	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Chloroethane	ND		ug/m3	1.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Trichlorofluoromethane	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Trichlorofluoromethane	ND		ug/m3	3.4	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1-Dichloroethene	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1-Dichloroethene	ND		ug/m3	2.4	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Freon 113	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Freon 113	ND		ug/m3	4.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Acetone	4,000		ppbv	150	150	279529	12/09/21 15:52	12/09/21 15:52	DJL
Acetone	9,400		ug/m3	360	150	279529	12/09/21 15:52	12/09/21 15:52	DJL
Carbon Disulfide	13		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Carbon Disulfide	41		ug/m3	1.9	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Isopropanol (IPA)	22		ppbv	3.0	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Isopropanol (IPA)	53		ug/m3	7.4	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Methylene Chloride	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Methylene Chloride	ND		ug/m3	2.1	3	279485	12/09/21 04:43	12/09/21 04:43	DJL

Analysis Results for 454424

454424-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
trans-1,2-Dichloroethene	ND		ug/m3	2.4	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
MTBE	0.84		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
MTBE	3.0		ug/m3	2.2	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
n-Hexane	61		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
n-Hexane	210		ug/m3	2.1	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1-Dichloroethane	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1-Dichloroethane	ND		ug/m3	2.4	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Vinyl Acetate	ND		ppbv	3.0	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Vinyl Acetate	ND		ug/m3	11	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
cis-1,2-Dichloroethene	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
cis-1,2-Dichloroethene	ND		ug/m3	2.4	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
2-Butanone	570		ppbv	150	150	279529	12/09/21 15:52	12/09/21 15:52	DJL
2-Butanone	1,700		ug/m3	440	150	279529	12/09/21 15:52	12/09/21 15:52	DJL
Chloroform	1.3		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Chloroform	6.3		ug/m3	2.9	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1,1-Trichloroethane	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1,1-Trichloroethane	ND		ug/m3	3.3	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Carbon Tetrachloride	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Carbon Tetrachloride	ND		ug/m3	3.8	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Benzene	870		ppbv	30	150	279529	12/09/21 15:52	12/09/21 15:52	DJL
Benzene	2,800		ug/m3	96	150	279529	12/09/21 15:52	12/09/21 15:52	DJL
1,2-Dichloroethane	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2-Dichloroethane	ND		ug/m3	2.4	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Trichloroethene	0.75		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Trichloroethene	4.0		ug/m3	3.2	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2-Dichloropropane	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2-Dichloropropane	ND		ug/m3	2.8	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Bromodichloromethane	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Bromodichloromethane	ND		ug/m3	4.0	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
cis-1,3-Dichloropropene	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
cis-1,3-Dichloropropene	ND		ug/m3	2.7	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
4-Methyl-2-Pentanone	45		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
4-Methyl-2-Pentanone	180		ug/m3	2.5	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Toluene	200		ppbv	30	150	279529	12/09/21 15:52	12/09/21 15:52	DJL
Toluene	740		ug/m3	110	150	279529	12/09/21 15:52	12/09/21 15:52	DJL
trans-1,3-Dichloropropene	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
trans-1,3-Dichloropropene	ND		ug/m3	2.7	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1,2-Trichloroethane	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1,2-Trichloroethane	ND		ug/m3	3.3	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Tetrachloroethene	1.0		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Tetrachloroethene	6.9		ug/m3	4.1	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
2-Hexanone	27		ppbv	1.5	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
2-Hexanone	110		ug/m3	6.1	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Dibromochloromethane	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Dibromochloromethane	ND		ug/m3	5.1	3	279485	12/09/21 04:43	12/09/21 04:43	DJL

Analysis Results for 454424

454424-008 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dibromoethane	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2-Dibromoethane	ND		ug/m3	4.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Chlorobenzene	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Chlorobenzene	ND		ug/m3	2.8	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Ethylbenzene	9.5		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Ethylbenzene	41		ug/m3	2.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
m,p-Xylenes	26		ppbv	1.2	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
m,p-Xylenes	110		ug/m3	5.2	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
o-Xylene	12		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
o-Xylene	53		ug/m3	2.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Styrene	2.8		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Styrene	12		ug/m3	2.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Bromoform	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Bromoform	ND		ug/m3	6.2	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1,2,2-Tetrachloroethane	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1,2,2-Tetrachloroethane	ND		ug/m3	4.1	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1,1,2-Tetrachloroethane	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,1,1,2-Tetrachloroethane	ND		ug/m3	4.1	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
4-Ethyltoluene	1.5		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
4-Ethyltoluene	7.3		ug/m3	2.9	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,3,5-Trimethylbenzene	3.0		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,3,5-Trimethylbenzene	15		ug/m3	2.9	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2,4-Trimethylbenzene	5.1		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2,4-Trimethylbenzene	25		ug/m3	2.9	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,3-Dichlorobenzene	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,3-Dichlorobenzene	ND		ug/m3	3.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,4-Dichlorobenzene	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,4-Dichlorobenzene	ND		ug/m3	3.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Benzyl chloride	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Benzyl chloride	ND		ug/m3	3.1	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2-Dichlorobenzene	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2-Dichlorobenzene	ND		ug/m3	3.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2,4-Trichlorobenzene	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
1,2,4-Trichlorobenzene	ND		ug/m3	4.5	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Hexachlorobutadiene	ND		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Hexachlorobutadiene	ND		ug/m3	6.4	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Xylene (total)	38		ppbv	0.60	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Xylene (total)	160		ug/m3	2.6	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Surrogates				Limits					
Bromofluorobenzene	104%		%REC	60-140	3	279485	12/09/21 04:43	12/09/21 04:43	DJL
Method: EPA TO-3M									
TPH Gasoline	8.5		ppmv	0.050	2	279377	12/07/21 17:01	12/07/21 17:01	LJB
TPH Gasoline	35,000		ug/m3	200	2	279377	12/07/21 17:01	12/07/21 17:01	LJB

Analysis Results for 454424

Sample ID: B-20-5V	Lab ID: 454424-011	Collected: 12/02/21 13:55
Matrix: Air		

454424-011 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: ASTM D1946									
Prep Method: METHOD									
Helium	12		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Helium	120,000		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Monoxide	ND		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Carbon Dioxide	ND		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	16		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Oxygen/Argon	160,000		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Methane	ND		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	72		Mol %	0.18	1.8	279272	12/06/21	12/06/21	MPD
Nitrogen	720,000		ppmv	1,800	1.8	279272	12/06/21	12/06/21	MPD
Method: EPA TO-15									
Prep Method: METHOD									
Freon 12	0.42		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Freon 12	2.1		ug/m3	1.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Freon 114	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Freon 114	ND		ug/m3	2.5	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Chloromethane	0.56		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Chloromethane	1.1		ug/m3	0.74	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Vinyl Chloride	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Vinyl Chloride	ND		ug/m3	0.92	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Bromomethane	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Bromomethane	ND		ug/m3	1.4	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Chloroethane	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Chloroethane	ND		ug/m3	0.95	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Trichlorofluoromethane	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Trichlorofluoromethane	ND		ug/m3	2.0	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1-Dichloroethene	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1-Dichloroethene	ND		ug/m3	1.4	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Freon 113	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Freon 113	ND		ug/m3	2.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Acetone	30		ppbv	1.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Acetone	72		ug/m3	4.3	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Carbon Disulfide	11		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Carbon Disulfide	33		ug/m3	1.1	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Isopropanol (IPA)	ND		ppbv	1.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Isopropanol (IPA)	ND		ug/m3	4.4	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Methylene Chloride	0.62		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Methylene Chloride	2.2		ug/m3	1.3	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL

Analysis Results for 454424

454424-011 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
trans-1,2-Dichloroethene	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
trans-1,2-Dichloroethene	ND		ug/m3	1.4	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
MTBE	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
MTBE	ND		ug/m3	1.3	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
n-Hexane	5.2		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
n-Hexane	18		ug/m3	1.3	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1-Dichloroethane	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1-Dichloroethane	ND		ug/m3	1.5	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Vinyl Acetate	ND		ppbv	1.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Vinyl Acetate	ND		ug/m3	6.3	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
cis-1,2-Dichloroethene	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
cis-1,2-Dichloroethene	ND		ug/m3	1.4	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
2-Butanone	7.0		ppbv	1.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
2-Butanone	21		ug/m3	5.3	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Chloroform	0.83		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Chloroform	4.1		ug/m3	1.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1,1-Trichloroethane	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1,1-Trichloroethane	ND		ug/m3	2.0	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Carbon Tetrachloride	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Carbon Tetrachloride	ND		ug/m3	2.3	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Benzene	5.2		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Benzene	17		ug/m3	1.2	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2-Dichloroethane	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2-Dichloroethane	ND		ug/m3	1.5	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Trichloroethene	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Trichloroethene	ND		ug/m3	1.9	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2-Dichloropropane	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2-Dichloropropane	ND		ug/m3	1.7	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Bromodichloromethane	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Bromodichloromethane	ND		ug/m3	2.4	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
cis-1,3-Dichloropropene	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
cis-1,3-Dichloropropene	ND		ug/m3	1.6	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
4-Methyl-2-Pentanone	3.3		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
4-Methyl-2-Pentanone	14		ug/m3	1.5	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Toluene	2.7		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Toluene	10		ug/m3	1.4	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
trans-1,3-Dichloropropene	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
trans-1,3-Dichloropropene	ND		ug/m3	1.6	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1,2-Trichloroethane	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1,2-Trichloroethane	ND		ug/m3	2.0	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Tetrachloroethene	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Tetrachloroethene	ND		ug/m3	2.4	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
2-Hexanone	ND		ppbv	0.90	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
2-Hexanone	ND		ug/m3	3.7	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Dibromochloromethane	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Dibromochloromethane	ND		ug/m3	3.1	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL

Analysis Results for 454424

454424-011 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2-Dibromoethane	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2-Dibromoethane	ND		ug/m3	2.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Chlorobenzene	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Chlorobenzene	ND		ug/m3	1.7	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Ethylbenzene	1.0		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Ethylbenzene	4.5		ug/m3	1.6	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
m,p-Xylenes	3.7		ppbv	0.72	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
m,p-Xylenes	16		ug/m3	3.1	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
o-Xylene	1.4		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
o-Xylene	6.1		ug/m3	1.6	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Styrene	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Styrene	ND		ug/m3	1.5	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Bromoform	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Bromoform	ND		ug/m3	3.7	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1,2,2-Tetrachloroethane	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.5	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1,1,2-Tetrachloroethane	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.5	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
4-Ethyltoluene	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
4-Ethyltoluene	ND		ug/m3	1.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,3,5-Trimethylbenzene	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,3,5-Trimethylbenzene	ND		ug/m3	1.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2,4-Trimethylbenzene	0.70		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2,4-Trimethylbenzene	3.4		ug/m3	1.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,3-Dichlorobenzene	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,3-Dichlorobenzene	ND		ug/m3	2.2	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,4-Dichlorobenzene	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,4-Dichlorobenzene	ND		ug/m3	2.2	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Benzyl chloride	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Benzyl chloride	ND		ug/m3	1.9	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2-Dichlorobenzene	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2-Dichlorobenzene	ND		ug/m3	2.2	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2,4-Trichlorobenzene	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
1,2,4-Trichlorobenzene	ND		ug/m3	2.7	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Hexachlorobutadiene	ND		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Hexachlorobutadiene	ND		ug/m3	3.8	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Xylene (total)	5.1		ppbv	0.36	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Xylene (total)	22		ug/m3	1.6	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Surrogates				Limits					
Bromofluorobenzene	100%		%REC	60-140	1.8	279529	12/09/21 15:01	12/09/21 15:01	DJL
Method: EPA TO-3M									
TPH Gasoline	1.4		ppmv	0.050	2	279377	12/07/21 17:29	12/07/21 17:29	LJB
TPH Gasoline	5,600		ug/m3	200	2	279377	12/07/21 17:29	12/07/21 17:29	LJB

ND Not Detected

Analysis Results for 454424

Batch QC

Type: Lab Control Sample	Lab ID: QC959202	Batch: 279272
Matrix: Air	Method: ASTM D1946	Prep Method: METHOD

QC959202 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Helium	8.686	10.00	mol %	87%		85-115
Carbon Monoxide	7.528	7.000	mol %	108%		85-115
Carbon Dioxide	13.90	15.00	mol %	93%		85-115
Oxygen/Argon	4.260	4.000	mol %	107%		85-115
Methane	4.652	4.000	mol %	116%	*	85-115

Type: Lab Control Sample Duplicate	Lab ID: QC959203	Batch: 279272
Matrix: Air	Method: ASTM D1946	Prep Method: METHOD

QC959203 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim
Helium	8.856	10.00	mol %	89%		85-115	2	10
Carbon Monoxide	7.527	7.000	mol %	108%		85-115	0	10
Carbon Dioxide	13.90	15.00	mol %	93%		85-115	0	10
Oxygen/Argon	4.258	4.000	mol %	106%		85-115	0	10
Methane	4.652	4.000	mol %	116%	*	85-115	0	10

Type: Blank	Lab ID: QC959204	Batch: 279272
Matrix: Air	Method: ASTM D1946	Prep Method: METHOD

QC959204 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Helium	ND		mol %	0.10	12/06/21	12/06/21
Carbon Monoxide	ND		mol %	0.10	12/06/21	12/06/21
Carbon Dioxide	ND		mol %	0.10	12/06/21	12/06/21
Oxygen/Argon	ND		mol %	0.10	12/06/21	12/06/21
Methane	ND		mol %	0.10	12/06/21	12/06/21
Nitrogen	ND		mol %	0.10	12/06/21	12/06/21

Type: Sample Duplicate	Lab ID: QC959205	Batch: 279272
Matrix (Source ID): Air (454375-001)	Method: ASTM D1946	Prep Method: METHOD

QC959205 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Helium	0.2610	0.2630	mol %		1	20	2
Carbon Monoxide	ND	ND	mol %			20	2
Carbon Dioxide	ND	ND	mol %			20	2
Oxygen/Argon	22.53	22.53	mol %		0	20	2
Methane	ND	ND	mol %		5	20	2
Nitrogen	77.19	77.19	mol %		0	20	2

Batch QC

Type: Sample Duplicate	Lab ID: QC959206	Batch: 279272
Matrix (Source ID): Air (454424-001)	Method: ASTM D1946	Prep Method: METHOD

QC959206 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Helium	4.844	4.844	mol %		0	20	2
Carbon Monoxide	ND	ND	mol %			20	2
Carbon Dioxide	ND	ND	mol %			20	2
Oxygen/Argon	19.17	19.18	mol %		0	20	2
Methane	ND	ND	mol %		0	20	2
Nitrogen	75.97	75.96	mol %		0	20	2

Type: Lab Control Sample	Lab ID: QC959247	Batch: 279284
Matrix: Air	Method: EPA TO-3M	

QC959247 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
TPH Gasoline	2.288	2.500	ppmv	92%		70-130

Type: Lab Control Sample Duplicate	Lab ID: QC959248	Batch: 279284
Matrix: Air	Method: EPA TO-3M	

QC959248 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
TPH Gasoline	2.342	2.500	ppmv	94%		70-130	2	25

Type: Blank	Lab ID: QC959249	Batch: 279284
Matrix: Air	Method: EPA TO-3M	

QC959249 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
TPH Gasoline	ND		ppmv	0.025	12/06/21 13:25	12/06/21 13:25

Type: Lab Control Sample	Lab ID: QC959503	Batch: 279377
Matrix: Air	Method: EPA TO-3M	

QC959503 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
TPH Gasoline	2.341	2.500	ppmv	94%		70-130

Type: Lab Control Sample Duplicate	Lab ID: QC959504	Batch: 279377
Matrix: Air	Method: EPA TO-3M	

QC959504 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
TPH Gasoline	2.343	2.500	ppmv	94%		70-130	0	25

Batch QC

Type: Blank	Lab ID: QC959505	Batch: 279377
Matrix: Air	Method: EPA TO-3M	

QC959505 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
TPH Gasoline	ND		ppmv	0.025	12/07/21 13:35	12/07/21 13:35

Type: Lab Control Sample	Lab ID: QC959514	Batch: 279383
Matrix: Air	Method: ASTM D1946	Prep Method: METHOD

QC959514 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Helium	9.500	10.00	mol %	95%		85-115
Carbon Monoxide	4.900	5.000	mol %	98%		85-115
Carbon Dioxide	5.200	4.990	mol %	104%		85-115
Oxygen/Argon	3.400	3.400	mol %	100%		85-115
Methane	4.900	5.000	mol %	98%		85-115

Type: Lab Control Sample Duplicate	Lab ID: QC959515	Batch: 279383
Matrix: Air	Method: ASTM D1946	Prep Method: METHOD

QC959515 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
Helium	9.500	10.00	mol %	95%		85-115	0	10
Carbon Monoxide	5.000	5.000	mol %	100%		85-115	2	10
Carbon Dioxide	5.195	4.990	mol %	104%		85-115	0	10
Oxygen/Argon	3.400	3.400	mol %	100%		85-115	0	10
Methane	4.900	5.000	mol %	98%		85-115	0	10

Type: Blank	Lab ID: QC959516	Batch: 279383
Matrix: Air	Method: ASTM D1946	Prep Method: METHOD

QC959516 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Helium	ND		mol %	0.10	12/07/21	12/07/21
Carbon Monoxide	ND		mol %	0.10	12/07/21	12/07/21
Carbon Dioxide	ND		mol %	0.10	12/07/21	12/07/21
Oxygen/Argon	ND		mol %	0.10	12/07/21	12/07/21
Methane	ND		mol %	0.10	12/07/21	12/07/21
Nitrogen	ND		mol %	0.10	12/07/21	12/07/21

Batch QC

Type: Sample Duplicate	Lab ID: QC959517	Batch: 279383
Matrix (Source ID): Air (454424-008)	Method: ASTM D1946	Prep Method: METHOD

QC959517 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Helium	ND	ND	mol %		0	20	3
Carbon Monoxide	ND	ND	mol %			20	3
Carbon Dioxide	ND	ND	mol %		0	20	3
Oxygen/Argon	11.77	11.78	mol %		0	20	3
Methane	0.6500	0.6600	mol %		2	20	3
Nitrogen	87.57	87.55	mol %		0	20	3

Batch QC

Type: Lab Control Sample	Lab ID: QC959783	Batch: 279485
Matrix: Air	Method: EPA TO-15	Prep Method: METHOD

QC959783 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Freon 12	9.241	10.00	ppbv	92%		70-130
Freon 114	9.405	10.00	ppbv	94%		70-130
Chloromethane	8.297	10.00	ppbv	83%		70-130
Vinyl Chloride	9.517	10.00	ppbv	95%		70-130
Bromomethane	10.49	10.00	ppbv	105%		70-130
Chloroethane	9.245	10.00	ppbv	92%		70-130
Trichlorofluoromethane	9.226	10.00	ppbv	92%		70-130
1,1-Dichloroethene	9.928	10.00	ppbv	99%		70-130
Freon 113	9.683	10.00	ppbv	97%		70-130
Acetone	8.964	10.00	ppbv	90%		70-130
Carbon Disulfide	9.638	10.00	ppbv	96%		70-130
Isopropanol (IPA)	7.586	10.00	ppbv	76%		70-130
Methylene Chloride	8.322	10.00	ppbv	83%		70-130
trans-1,2-Dichloroethene	9.358	10.00	ppbv	94%		70-130
MTBE	10.26	10.00	ppbv	103%		70-130
n-Hexane	10.10	10.00	ppbv	101%		70-130
1,1-Dichloroethane	9.592	10.00	ppbv	96%		70-130
Vinyl Acetate	10.63	10.00	ppbv	106%		70-130
cis-1,2-Dichloroethene	9.882	10.00	ppbv	99%		70-130
2-Butanone	10.34	10.00	ppbv	103%		70-130
Chloroform	9.538	10.00	ppbv	95%		70-130
1,1,1-Trichloroethane	9.606	10.00	ppbv	96%		70-130
Carbon Tetrachloride	9.715	10.00	ppbv	97%		70-130
Benzene	9.704	10.00	ppbv	97%		70-130
1,2-Dichloroethane	9.353	10.00	ppbv	94%		70-130
Trichloroethene	9.716	10.00	ppbv	97%		70-130
1,2-Dichloropropane	9.513	10.00	ppbv	95%		70-130
Bromodichloromethane	9.518	10.00	ppbv	95%		70-130
cis-1,3-Dichloropropene	10.41	10.00	ppbv	104%		70-130
4-Methyl-2-Pentanone	10.81	10.00	ppbv	108%		70-130
Toluene	9.878	10.00	ppbv	99%		70-130
trans-1,3-Dichloropropene	10.55	10.00	ppbv	106%		70-130
1,1,2-Trichloroethane	9.726	10.00	ppbv	97%		70-130
Tetrachloroethene	9.476	10.00	ppbv	95%		70-130
2-Hexanone	11.01	10.00	ppbv	110%		70-130
Dibromochloromethane	9.920	10.00	ppbv	99%		70-130
1,2-Dibromoethane	9.754	10.00	ppbv	98%		70-130
Chlorobenzene	9.601	10.00	ppbv	96%		70-130
Ethylbenzene	10.25	10.00	ppbv	103%		70-130
m,p-Xylenes	20.80	20.00	ppbv	104%		70-130
o-Xylene	10.48	10.00	ppbv	105%		70-130
Styrene	10.97	10.00	ppbv	110%		70-130

Batch QC

QC959783 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Bromoform	10.62	10.00	ppbv	106%		70-130
1,1,2,2-Tetrachloroethane	10.02	10.00	ppbv	100%		70-130
1,1,1,2-Tetrachloroethane	10.03	10.00	ppbv	100%		70-130
4-Ethyltoluene	11.02	10.00	ppbv	110%		70-130
1,3,5-Trimethylbenzene	11.12	10.00	ppbv	111%		70-130
1,2,4-Trimethylbenzene	10.79	10.00	ppbv	108%		70-130
1,3-Dichlorobenzene	9.931	10.00	ppbv	99%		70-130
1,4-Dichlorobenzene	10.12	10.00	ppbv	101%		70-130
Benzyl chloride	11.32	10.00	ppbv	113%		70-130
1,2-Dichlorobenzene	9.941	10.00	ppbv	99%		70-130
1,2,4-Trichlorobenzene	10.70	10.00	ppbv	107%		70-130
Hexachlorobutadiene	10.00	10.00	ppbv	100%		70-130
Surrogates						
Bromofluorobenzene	10.01	10.00	ppbv	100%		60-140

Batch QC

Type: Lab Control Sample Duplicate	Lab ID: QC959784	Batch: 279485
Matrix: Air	Method: EPA TO-15	Prep Method: METHOD

QC959784 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
Freon 12	9.292	10.00	ppbv	93%		70-130	1	30
Freon 114	9.472	10.00	ppbv	95%		70-130	1	30
Chloromethane	8.304	10.00	ppbv	83%		70-130	0	30
Vinyl Chloride	9.502	10.00	ppbv	95%		70-130	0	30
Bromomethane	10.61	10.00	ppbv	106%		70-130	1	30
Chloroethane	9.412	10.00	ppbv	94%		70-130	2	30
Trichlorofluoromethane	9.348	10.00	ppbv	93%		70-130	1	30
1,1-Dichloroethene	9.908	10.00	ppbv	99%		70-130	0	30
Freon 113	9.808	10.00	ppbv	98%		70-130	1	30
Acetone	8.980	10.00	ppbv	90%		70-130	0	30
Carbon Disulfide	9.730	10.00	ppbv	97%		70-130	1	30
Isopropanol (IPA)	7.642	10.00	ppbv	76%		70-130	1	30
Methylene Chloride	8.458	10.00	ppbv	85%		70-130	2	30
trans-1,2-Dichloroethene	9.366	10.00	ppbv	94%		70-130	0	30
MTBE	10.27	10.00	ppbv	103%		70-130	0	30
n-Hexane	10.13	10.00	ppbv	101%		70-130	0	30
1,1-Dichloroethane	9.632	10.00	ppbv	96%		70-130	0	30
Vinyl Acetate	10.71	10.00	ppbv	107%		70-130	1	30
cis-1,2-Dichloroethene	10.03	10.00	ppbv	100%		70-130	1	30
2-Butanone	10.26	10.00	ppbv	103%		70-130	1	30
Chloroform	9.530	10.00	ppbv	95%		70-130	0	30
1,1,1-Trichloroethane	9.706	10.00	ppbv	97%		70-130	1	30
Carbon Tetrachloride	9.715	10.00	ppbv	97%		70-130	0	30
Benzene	9.724	10.00	ppbv	97%		70-130	0	30
1,2-Dichloroethane	9.362	10.00	ppbv	94%		70-130	0	30
Trichloroethene	9.907	10.00	ppbv	99%		70-130	2	30
1,2-Dichloropropane	9.574	10.00	ppbv	96%		70-130	1	30
Bromodichloromethane	9.663	10.00	ppbv	97%		70-130	2	30
cis-1,3-Dichloropropene	10.54	10.00	ppbv	105%		70-130	1	30
4-Methyl-2-Pentanone	10.95	10.00	ppbv	110%		70-130	1	30
Toluene	10.08	10.00	ppbv	101%		70-130	2	30
trans-1,3-Dichloropropene	10.63	10.00	ppbv	106%		70-130	1	30
1,1,2-Trichloroethane	9.821	10.00	ppbv	98%		70-130	1	30
Tetrachloroethene	9.706	10.00	ppbv	97%		70-130	2	30
2-Hexanone	11.19	10.00	ppbv	112%		70-130	2	30
Dibromochloromethane	10.15	10.00	ppbv	101%		70-130	2	30
1,2-Dibromoethane	10.04	10.00	ppbv	100%		70-130	3	30
Chlorobenzene	9.537	10.00	ppbv	95%		70-130	1	30
Ethylbenzene	10.34	10.00	ppbv	103%		70-130	1	30
m,p-Xylenes	20.88	20.00	ppbv	104%		70-130	0	30
o-Xylene	10.51	10.00	ppbv	105%		70-130	0	30

Batch QC

QC959784 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	
							RPD	Lim
Styrene	11.22	10.00	ppbv	112%		70-130	2	30
Bromoform	10.60	10.00	ppbv	106%		70-130	0	30
1,1,2,2-Tetrachloroethane	10.04	10.00	ppbv	100%		70-130	0	30
1,1,1,2-Tetrachloroethane	10.09	10.00	ppbv	101%		70-130	1	30
4-Ethyltoluene	11.04	10.00	ppbv	110%		70-130	0	30
1,3,5-Trimethylbenzene	11.17	10.00	ppbv	112%		70-130	0	30
1,2,4-Trimethylbenzene	10.88	10.00	ppbv	109%		70-130	1	30
1,3-Dichlorobenzene	10.15	10.00	ppbv	101%		70-130	2	30
1,4-Dichlorobenzene	10.34	10.00	ppbv	103%		70-130	2	30
Benzyl chloride	11.73	10.00	ppbv	117%		70-130	4	30
1,2-Dichlorobenzene	10.23	10.00	ppbv	102%		70-130	3	30
1,2,4-Trichlorobenzene	11.48	10.00	ppbv	115%		70-130	7	30
Hexachlorobutadiene	10.24	10.00	ppbv	102%		70-130	2	30
Surrogates								
Bromofluorobenzene	10.13	10.00	ppbv	101%		60-140		

Batch QC

Type: Blank	Lab ID: QC959785	Batch: 279485
Matrix: Air	Method: EPA TO-15	Prep Method: METHOD

QC959785 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Freon 12	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Freon 114	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Chloromethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Vinyl Chloride	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Bromomethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Chloroethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Trichlorofluoromethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,1-Dichloroethene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Freon 113	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Acetone	ND		ppbv	1.0	12/08/21 16:30	12/08/21 16:30
Carbon Disulfide	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Isopropanol (IPA)	ND		ppbv	1.0	12/08/21 16:30	12/08/21 16:30
Methylene Chloride	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
trans-1,2-Dichloroethene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
MTBE	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
n-Hexane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,1-Dichloroethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Vinyl Acetate	ND		ppbv	1.0	12/08/21 16:30	12/08/21 16:30
cis-1,2-Dichloroethene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
2-Butanone	ND		ppbv	1.0	12/08/21 16:30	12/08/21 16:30
Chloroform	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,1,1-Trichloroethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Carbon Tetrachloride	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Benzene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,2-Dichloroethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Trichloroethene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,2-Dichloropropane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Bromodichloromethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
cis-1,3-Dichloropropene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
4-Methyl-2-Pentanone	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Toluene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
trans-1,3-Dichloropropene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,1,2-Trichloroethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Tetrachloroethene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
2-Hexanone	ND		ppbv	0.50	12/08/21 16:30	12/08/21 16:30
Dibromochloromethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,2-Dibromoethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Chlorobenzene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Ethylbenzene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
m,p-Xylenes	ND		ppbv	0.40	12/08/21 16:30	12/08/21 16:30
o-Xylene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Styrene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30

Batch QC

QC959785 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Bromoform	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,1,1,2-Tetrachloroethane	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
4-Ethyltoluene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,3,5-Trimethylbenzene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,2,4-Trimethylbenzene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,3-Dichlorobenzene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,4-Dichlorobenzene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Benzyl chloride	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,2-Dichlorobenzene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
1,2,4-Trichlorobenzene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Hexachlorobutadiene	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Xylene (total)	ND		ppbv	0.20	12/08/21 16:30	12/08/21 16:30
Surrogates				Limits		
Bromofluorobenzene	100%		%REC	60-140	12/08/21 16:30	12/08/21 16:30

Batch QC

Type: Lab Control Sample	Lab ID: QC959914	Batch: 279529
Matrix: Air	Method: EPA TO-15	Prep Method: METHOD

QC959914 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Freon 12	9.558	10.00	ppbv	96%		70-130
Freon 114	9.360	10.00	ppbv	94%		70-130
Chloromethane	10.51	10.00	ppbv	105%		70-130
Vinyl Chloride	9.645	10.00	ppbv	96%		70-130
Bromomethane	9.362	10.00	ppbv	94%		70-130
Chloroethane	9.426	10.00	ppbv	94%		70-130
Trichlorofluoromethane	9.846	10.00	ppbv	98%		70-130
1,1-Dichloroethene	10.25	10.00	ppbv	103%		70-130
Freon 113	9.929	10.00	ppbv	99%		70-130
Acetone	9.474	10.00	ppbv	95%		70-130
Carbon Disulfide	10.37	10.00	ppbv	104%		70-130
Isopropanol (IPA)	10.24	10.00	ppbv	102%		70-130
Methylene Chloride	9.577	10.00	ppbv	96%		70-130
trans-1,2-Dichloroethene	10.37	10.00	ppbv	104%		70-130
MTBE	10.91	10.00	ppbv	109%		70-130
n-Hexane	10.86	10.00	ppbv	109%		70-130
1,1-Dichloroethane	10.55	10.00	ppbv	105%		70-130
Vinyl Acetate	11.07	10.00	ppbv	111%		70-130
cis-1,2-Dichloroethene	10.54	10.00	ppbv	105%		70-130
2-Butanone	10.57	10.00	ppbv	106%		70-130
Chloroform	9.393	10.00	ppbv	94%		70-130
1,1,1-Trichloroethane	9.859	10.00	ppbv	99%		70-130
Carbon Tetrachloride	10.09	10.00	ppbv	101%		70-130
Benzene	10.28	10.00	ppbv	103%		70-130
1,2-Dichloroethane	10.17	10.00	ppbv	102%		70-130
Trichloroethene	11.75	10.00	ppbv	118%		70-130
1,2-Dichloropropane	11.72	10.00	ppbv	117%		70-130
Bromodichloromethane	11.58	10.00	ppbv	116%		70-130
cis-1,3-Dichloropropene	12.04	10.00	ppbv	120%		70-130
4-Methyl-2-Pentanone	11.82	10.00	ppbv	118%		70-130
Toluene	12.44	10.00	ppbv	124%		70-130
trans-1,3-Dichloropropene	12.55	10.00	ppbv	126%		70-130
1,1,2-Trichloroethane	11.45	10.00	ppbv	114%		70-130
Tetrachloroethene	11.65	10.00	ppbv	117%		70-130
2-Hexanone	13.58	10.00	ppbv	136%	b,*	70-130
Dibromochloromethane	11.80	10.00	ppbv	118%		70-130
1,2-Dibromoethane	12.00	10.00	ppbv	120%		70-130
Chlorobenzene	9.984	10.00	ppbv	100%		70-130
Ethylbenzene	10.83	10.00	ppbv	108%		70-130
m,p-Xylenes	21.61	20.00	ppbv	108%		70-130
o-Xylene	11.04	10.00	ppbv	110%		70-130
Styrene	11.66	10.00	ppbv	117%		70-130

Batch QC

QC959914 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Bromoform	10.34	10.00	ppbv	103%		70-130
1,1,2,2-Tetrachloroethane	10.08	10.00	ppbv	101%		70-130
1,1,1,2-Tetrachloroethane	9.870	10.00	ppbv	99%		70-130
4-Ethyltoluene	11.78	10.00	ppbv	118%		70-130
1,3,5-Trimethylbenzene	11.50	10.00	ppbv	115%		70-130
1,2,4-Trimethylbenzene	12.24	10.00	ppbv	122%		70-130
1,3-Dichlorobenzene	11.12	10.00	ppbv	111%		70-130
1,4-Dichlorobenzene	11.45	10.00	ppbv	115%		70-130
Benzyl chloride	12.38	10.00	ppbv	124%		70-130
1,2-Dichlorobenzene	11.24	10.00	ppbv	112%		70-130
1,2,4-Trichlorobenzene	14.53	10.00	ppbv	145%	b,*	70-130
Hexachlorobutadiene	11.23	10.00	ppbv	112%		70-130
Surrogates						
Bromofluorobenzene	9.982	10.00	ppbv	100%		60-140

Batch QC

Type: Lab Control Sample Duplicate	Lab ID: QC959915	Batch: 279529
Matrix: Air	Method: EPA TO-15	Prep Method: METHOD

QC959915 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
Freon 12	10.01	10.00	ppbv	100%		70-130	5	30
Freon 114	9.657	10.00	ppbv	97%		70-130	3	30
Chloromethane	10.50	10.00	ppbv	105%		70-130	0	30
Vinyl Chloride	9.857	10.00	ppbv	99%		70-130	2	30
Bromomethane	9.474	10.00	ppbv	95%		70-130	1	30
Chloroethane	9.538	10.00	ppbv	95%		70-130	1	30
Trichlorofluoromethane	9.875	10.00	ppbv	99%		70-130	0	30
1,1-Dichloroethene	10.32	10.00	ppbv	103%		70-130	1	30
Freon 113	9.870	10.00	ppbv	99%		70-130	1	30
Acetone	9.516	10.00	ppbv	95%		70-130	0	30
Carbon Disulfide	10.37	10.00	ppbv	104%		70-130	0	30
Isopropanol (IPA)	10.29	10.00	ppbv	103%		70-130	0	30
Methylene Chloride	8.827	10.00	ppbv	88%		70-130	8	30
trans-1,2-Dichloroethene	10.46	10.00	ppbv	105%		70-130	1	30
MTBE	11.07	10.00	ppbv	111%		70-130	1	30
n-Hexane	10.94	10.00	ppbv	109%		70-130	1	30
1,1-Dichloroethane	10.58	10.00	ppbv	106%		70-130	0	30
Vinyl Acetate	10.96	10.00	ppbv	110%		70-130	1	30
cis-1,2-Dichloroethene	10.59	10.00	ppbv	106%		70-130	0	30
2-Butanone	10.72	10.00	ppbv	107%		70-130	1	30
Chloroform	9.373	10.00	ppbv	94%		70-130	0	30
1,1,1-Trichloroethane	9.872	10.00	ppbv	99%		70-130	0	30
Carbon Tetrachloride	10.17	10.00	ppbv	102%		70-130	1	30
Benzene	10.32	10.00	ppbv	103%		70-130	0	30
1,2-Dichloroethane	10.03	10.00	ppbv	100%		70-130	1	30
Trichloroethene	11.47	10.00	ppbv	115%		70-130	2	30
1,2-Dichloropropane	11.43	10.00	ppbv	114%		70-130	2	30
Bromodichloromethane	11.28	10.00	ppbv	113%		70-130	3	30
cis-1,3-Dichloropropene	11.80	10.00	ppbv	118%		70-130	2	30
4-Methyl-2-Pentanone	12.02	10.00	ppbv	120%		70-130	2	30
Toluene	12.12	10.00	ppbv	121%		70-130	3	30
trans-1,3-Dichloropropene	12.34	10.00	ppbv	123%		70-130	2	30
1,1,2-Trichloroethane	11.17	10.00	ppbv	112%		70-130	2	30
Tetrachloroethene	11.40	10.00	ppbv	114%		70-130	2	30
2-Hexanone	13.42	10.00	ppbv	134%	b,*	70-130	1	30
Dibromochloromethane	11.50	10.00	ppbv	115%		70-130	3	30
1,2-Dibromoethane	11.69	10.00	ppbv	117%		70-130	3	30
Chlorobenzene	9.996	10.00	ppbv	100%		70-130	0	30
Ethylbenzene	10.92	10.00	ppbv	109%		70-130	1	30
m,p-Xylenes	21.72	20.00	ppbv	109%		70-130	1	30
o-Xylene	11.17	10.00	ppbv	112%		70-130	1	30

Batch QC

QC959915 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	
							RPD	Lim
Styrene	11.72	10.00	ppbv	117%		70-130	1	30
Bromoform	10.66	10.00	ppbv	107%		70-130	3	30
1,1,2,2-Tetrachloroethane	10.13	10.00	ppbv	101%		70-130	0	30
1,1,1,2-Tetrachloroethane	9.935	10.00	ppbv	99%		70-130	1	30
4-Ethyltoluene	11.80	10.00	ppbv	118%		70-130	0	30
1,3,5-Trimethylbenzene	11.50	10.00	ppbv	115%		70-130	0	30
1,2,4-Trimethylbenzene	12.27	10.00	ppbv	123%		70-130	0	30
1,3-Dichlorobenzene	11.10	10.00	ppbv	111%		70-130	0	30
1,4-Dichlorobenzene	11.41	10.00	ppbv	114%		70-130	0	30
Benzyl chloride	12.51	10.00	ppbv	125%		70-130	1	30
1,2-Dichlorobenzene	11.29	10.00	ppbv	113%		70-130	0	30
1,2,4-Trichlorobenzene	14.68	10.00	ppbv	147%	b,*	70-130	1	30
Hexachlorobutadiene	11.14	10.00	ppbv	111%		70-130	1	30
Surrogates								
Bromofluorobenzene	9.988	10.00	ppbv	100%		60-140		

Batch QC

Type: Blank	Lab ID: QC959916	Batch: 279529
Matrix: Air	Method: EPA TO-15	Prep Method: METHOD

QC959916 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Freon 12	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Freon 114	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Chloromethane	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Vinyl Chloride	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Bromomethane	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Chloroethane	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Trichlorofluoromethane	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,1-Dichloroethene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Freon 113	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Acetone	ND		ppbv	1.0	12/09/21 13:18	12/09/21 13:18
Carbon Disulfide	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Isopropanol (IPA)	ND		ppbv	1.0	12/09/21 13:18	12/09/21 13:18
Methylene Chloride	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
trans-1,2-Dichloroethene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
MTBE	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
n-Hexane	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,1-Dichloroethane	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Vinyl Acetate	ND		ppbv	1.0	12/09/21 13:18	12/09/21 13:18
cis-1,2-Dichloroethene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
2-Butanone	ND		ppbv	1.0	12/09/21 13:18	12/09/21 13:18
Chloroform	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,1,1-Trichloroethane	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Carbon Tetrachloride	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Benzene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,2-Dichloroethane	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Trichloroethene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,2-Dichloropropane	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Bromodichloromethane	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
cis-1,3-Dichloropropene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
4-Methyl-2-Pentanone	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Toluene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
trans-1,3-Dichloropropene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,1,2-Trichloroethane	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Tetrachloroethene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
2-Hexanone	ND		ppbv	0.50	12/09/21 13:18	12/09/21 13:18
Dibromochloromethane	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,2-Dibromoethane	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Chlorobenzene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Ethylbenzene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
m,p-Xylenes	ND		ppbv	0.40	12/09/21 13:18	12/09/21 13:18
o-Xylene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Styrene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18

Batch QC

QC959916 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Bromoform	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,1,1,2-Tetrachloroethane	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
4-Ethyltoluene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,3,5-Trimethylbenzene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,2,4-Trimethylbenzene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,3-Dichlorobenzene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,4-Dichlorobenzene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Benzyl chloride	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,2-Dichlorobenzene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
1,2,4-Trichlorobenzene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Hexachlorobutadiene	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Xylene (total)	ND		ppbv	0.20	12/09/21 13:18	12/09/21 13:18
Surrogates				Limits		
Bromofluorobenzene	100%		%REC	60-140	12/09/21 13:18	12/09/21 13:18

* Value is outside QC limits

ND Not Detected

b See narrative

Exhibit B

Memorandum

DATE	June 21, 2022		
TO	Peterson Vollmann, Planner IV 510.238.6167 pvollmann@oaklandca.gov	FROM	Lynette Dias, Principal-in-Charge Brandon Northart, Senior Planner
	cc: Michael Branson, City of Oakland		

RE: 1396 5th Street: Additional Hazardous Materials Investigation

Dear Pete:

Based on direction received by Oakland City Council and Oakland Planning Staff, Urban Planning Partners and Baseline Environmental Consulting reviewed all available documentation related to previous environmental investigations, cleanup activities, historic land uses, and findings from previous reports with the intent to determine if additional CEQA analysis is required beyond what has already been prepared.

To adequately address this concern, we have identified five key questions and have provided the following brief responses below. Please note, the information provided in this memo is intended to be a brief summary. As described below, we have provided an extremely detailed analysis of everything described in this memo in the updated CEQA document.

- 1. Determine if the environmental hazards located at the 1396 5th Street project site in West Oakland are worse now, compared to when they were identified in the West Oakland Specific Plan (WOSP) Environmental Impact Report (EIR) in 2014.***

Previous reports have identified contamination at the project site, which was a known condition present at the time the WOSP EIR was prepared. Since the WOSP EIR was prepared there have been no activities at the project site or at nearby upgradient properties that would increase potential hazardous materials contamination at the project site. Since release of the WOSP EIR, additional sampling activities at the project site under the oversight of the Alameda County Department of Environmental Health (ACDEH) confirmed that contamination at the site is still present; however, the residual soil contamination appears to be minor and groundwater conditions have improved since then. Therefore, the environmental conditions at the project

site are the same, if not improved, since the public circulation and certification of the WOSP EIR.

2. Determine if the proposed project would result in any new or more severe impacts from what was identified in the WOSP EIR related to hazardous materials.

The WOSP EIR indicated that potential impacts from hazardous materials release sites would be mitigated to less-than-significant levels with compliance with local, state, and federal regulations for treatment, remediation, and/or disposal of contaminated soil and/or groundwater and the City Standard Conditions of Approval (SCAs) that were in effect at the time, which are functionally equivalent to the City's current SCAs.

Based on review of past and present documentation, the project's compliance with applicable regulations and SCA-HAZ-1: Hazardous Materials Related to Construction (#43) and SCA-HAZ-2: Hazardous Building Materials and Site Contamination (#44) would still ensure that the site would be safe for residential development and its potential impact be reduced to a less-than-significant level, as was the case when the WOSP EIR was approved (SCA-HAZ-1 requires the project applicant to ensure that Best Management Practices [BMPs] are implemented by the contractor during construction to minimize potential negative effects on groundwater, soils, and human health and SCA-HAZ-2 includes measures such as compliance with all required treatment, remediation, and disposal requirements from applicable agencies; a Health and Safety Plan to ensure the protection of construction workers from hazardous materials releases; and implementation of construction BMPs). Permits for demolition, grading, and/or building permits cannot be issued until complete compliance with these SCAs, and therefore any remedial activities, is demonstrated. These findings demonstrate that the proposed project is consistent with the original findings of the WOSP EIR.

3. Determine if compliance with existing regulatory requirements and City of Oakland SCAs would adequately address any potential impacts related to hazardous materials.

As mentioned above, the project's compliance with applicable regulations and SCA-HAZ-1: Hazardous Materials Related to Construction (#43) and SCA-HAZ-2: Hazardous Building Materials and Site Contamination (#44) would still ensure that the site would be safe for residential development and its potential impact be reduced to a less-than-significant level. While some investigation and remedial actions are ongoing, adherence to and demonstration of compliance with these SCAs would ensure that the project site would be adequate for residential development prior to demolition, grading, and/or building permit issuance.

4. Determine the appropriate level of CEQA documentation based on any new findings and analysis.

If it was determined that the conditions at the site had worsened since adoption of the WOSP EIR, additional analysis would be required to account for any unforeseen changes not considered in the WOSP EIR's analysis.

Based on our findings, conditions at the project site remain similar (only improved) since the WOSP EIR was adopted. As such, it is our professional opinion that the project still meets the conditions for an Addendum to the WOSP EIR pursuant to CEQA Guidelines Section 15162, 15164, 15168, 15182, and 15183, and Infill Exemption pursuant to CEQA Guidelines Section 15183.3. No further CEQA documentation is required. As such, we've prepared an updated CEQA analysis which includes substantial modifications and additions to the Hazards and Hazardous Materials resource topic to address concerns #1-4 in extensive detail. Furthermore, we've also included a several new sources into the CEQA analysis citing the applicable hazardous materials reports, studies, and miscellaneous materials used to inform the additional analysis. These reports have been added to the administrative record.

5. *Provide current status related to ACDEH process and ensure adequate public outreach will been undertaken related to hazardous materials.*

In May 2021, the property owner submitted a service request application to ACDEH for preliminary site review. In July 2021, an Environmental Update Letter was prepared for the project site to describe potential environmental concerns that remained after previous investigations and removals; compare past investigation results with current screening levels; and describe the potential contaminant locations in relation to the proposed future development. The Environmental Update Letter indicated that the presence of some residual soil and groundwater contaminants would require health and safety measures in areas of ground disturbance, and recommended that a Soil Management Plan be developed in coordination with the ACDEH, and that a vapor barrier should be installed under the building slab to mitigate the potential for vapor intrusion. In August 2021, ACDEH Issued a Phase I/II Screening Determination which indicated that ACDEH had reviewed the July 2021 Environmental Update Letter and information available on GeoTracker for the project site, and that ACDEH had determined that further investigation of the environmental concerns at the project site was warranted.

In September 2021, ACDEH issued an Environmental Site Review for the project site indicating that any potential risk from subsurface contamination to construction workers, the adjacent community, and project site users could be mitigated during redevelopment activities and long-term use of the project site through risk reduction measures. Risk reduction measures could include implementation of appropriate soil and groundwater management practices, use of engineering controls such as vapor migration and mitigation systems, and/or capping of impacted soil beneath hardscape and foundations – all of which are not out of the ordinary and would be typical for a site such as this one. ACDEH also requested that the Applicant enter into a Voluntary Remedial Action Agreement (Voluntary Agreement) with ACDEH to provide oversight of additional investigation activities to fill remaining data gaps to characterize soil and soil vapor at the project site and development of soil and groundwater management plans and engineering control documents to be implemented during development if warranted based on the additional data collection.

In March 2022, a Phase II Subsurface Investigation Report (Phase II Report) was prepared to document investigation activities performed at the project site between November 2021 and February 2022. The investigation activities were performed in general accordance with a Phase II Subsurface Investigation Work Plan that was reviewed and approved by ACDEH. Based on findings of testing at the site, the Phase II Report recommended risk reduction measures including preparation and implementation of a Soil Management Plan and installation of a vapor barrier. The Phase II Report also requested closure for the project site to allow residential occupancy; however, closure of a site is typically only allowed by regulatory agencies after ensuring that all necessary actions to protect human health and the environment have been completed and documented. The Phase II Report has been submitted to ACDEH for review; however, as of writing this memo, ACDEH has not yet issued a response to the Phase II Report.

In June 2022, as requested by ACDEH, the Applicant entered into a Voluntary Agreement for the project site. The Voluntary Agreement requires that the Applicant perform all remedial actions and other activities requested by ACDEH and indicates that upon completion of site assessment and/or remedial action, ACDEH will provide a letter indicating that no further action is required (i.e., Closure Letter) for the project site. The ACDEH would issue a No Further Remedial Action Letter when these actions are completed and a Risk Management Plan is prepared by the project applicant and approved by ACDEH. The Risk Management Plan must include a maintenance/monitoring/reporting program to confirm ongoing performance of the engineering controls and risk management measures until such time that subsurface contamination no longer poses a risk to human health if the engineering controls were not in place. The Risk Management Plan must also include routine inspection and testing to confirm the engineering controls continue to be protective of human health and the environment. This would ensure that cleanup efforts completed prior to construction of the project remain successful over time. SCA-HAZ-2: Hazardous Building Materials and Site Contamination (#44), requires compliance with all required treatment, remediation, and disposal requirements from applicable agencies – risk reduction and cleanup measures required from the ACDEH Voluntary Agreement and development of a Risk Management Plan would be consistent with implementation of this SCA to ensure no significant impacts would occur.

Furthermore, the ACDEH oversight process for remedial actions includes a public participation process that includes sending a fact sheet to the nearby community and making plans for remedial actions available for a 30-day public review and comment period. This public participation process would ensure that any concerns from the public regarding proposed remedial actions would be considered and responded to prior to a final determination on the proposed remedial actions.

After having reviewed all available information, we have determined that the current level of CEQA review is appropriate and that no additional CEQA analysis and/or documentation is required. The evidence provided here supports that the existing CEQA document, with a supplemented hazards and hazardous materials evaluation, is sufficient for the purposes of CEQA compliance.

Exhibit C



July 5, 2022

Scott Cooper Hall (Sent via E-mail to: scooper@tmo.com)
The Michaels Organization
1970 Broadway #300
Oakland, California, 94612

SUBJECT: Conditions of Clearance for Site Redevelopment
Cleanup Program Site Case No. RO0003500 and GeoTracker Global ID T10000017096
The Michaels Organization Redevelopment
1396 5th Street, Oakland, CA 94607
Assessor's Parcel Number: 4-69-4

Dear Mr. Cooper:

In May 2021, Alameda County Department of Environmental Health (ACDEH) received a *Service Request Application for a Preliminary Site Review* from Oakland Housing Investors L.P. for a proposed residential redevelopment project on the parcel located at 1396 5th Street, in Oakland with Alameda County Assessor's Parcel No. 004-0069-004 (the "Site"). On August 26, 2021, ACDEH issued a *Phase I/II Screening Determination* based on a finding that further investigation of environmental concerns at the Site was warranted to support the proposed redevelopment project. ACDEH's determination was based on review of the document entitled *Environmental Update Letter*, dated July 2, 2021, prepared on your behalf by your environmental consultant Citadel EHS ("Citadel"), and the case file for a closed environmental case associated with the property (Cleanup Program Site Case No. RO0002896 – Red Star Yeast/1396 Fifth Street LLC).

On September 14, 2021, ACDEH opened a new environmental case (Cleanup Program Site Case No. RO0003500 – The Michaels Organization Redevelopment) and issued a letter entitled *Environmental Site Review* with a summary of our findings and a request for Oakland Housing Investors LP ("OHI") to enter into an Voluntary Remedial Action Agreement (VRAA) with ACDEH to provide regulatory oversight of environmental site investigations and cleanup to facilitate redevelopment at the above referenced property, if warranted based on additional Site investigation results.

In October 2021, ACDEH approved a work plan entitled *Phase II Subsurface Investigation Work Plan*, dated October 6, 2021, prepared by Citadel with a scope of work to evaluate soil vapor across the Site and shallow soil along the west, south and east perimeter of the Site that had not been previously sampled. Based on ACDEH's review of *Phase II Subsurface Investigation Report*, dated March 2, 2022, prepared by Citadel, ACDEH determined that corrective actions would be required to be implemented during Site redevelopment activities to mitigate risk from residual subsurface contamination at the Site from historical land use at and in the vicinity of the Site. On June 9, 2022, OHI executed a VRAA with ACDEH.

In June 2022, ACDEH held multiple teleconference calls with you and Citadel to discuss development of a site conceptual model and potential corrective actions to address subsurface contamination in soil, groundwater, and soil vapor from historical land use at and in the vicinity of the Site to facilitate redevelopment with the proposed new residential facility. On June 29, 2022 ACDEH received the document entitled *Draft Conceptual Site Model and Potential Corrective Action Plan* (the "Draft CSM and

Potential CAP”), dated June 28, 2022, prepared by Citadel. The *Draft CSM and Potential CAP* includes a summary of historical land use at and in the vicinity of the Site, a description of the current land use and proposed Site redevelopment, identification of chemicals of potential concern (CPOCs) in subsurface media based on previous environmental investigations, a vapor intrusion conceptual site model prepared in accordance ACDEH’s *Decision Matrix for Development of Vapor Intrusion Conceptual Site Model* (the “VI CSM”) and *Determination of Vapor Intrusion Risk Classification*, and proposed corrective actions to be implemented during Site redevelopment.

I. SUMMARY OF FINDINGS

Based on our review of the environmental case files for the Site, and the *Draft CSM and Potential CAP*, ACDEH is of the opinion that potential risk from subsurface contamination to construction workers, the adjacent community, and Site users can be mitigated during redevelopment activities and long-term use of the Site through implementation of: (1) corrective actions including soil and/or groundwater remediation and environmental engineering controls such as vapor intrusion migration and mitigation systems and/or capping of impacted soil beneath hardscape and foundations; and (2) institutional controls for long-term management of environmental engineering controls including recordation of an Environmental Deed Restriction on the Property, and compliance with an Environmental Risk Management Plan and Long-Term Operations, Maintenance, Monitoring and Reporting Plans.

A summary of ACDEH’s findings is presented below:

- The approximately 38,000 square feet (0.88 acres) Site is located in West Oakland along the north side of Fifth Street and is bordered by the Bay Area Rapid Transit (BART) elevated tracks to the north, Mandela Parkway to the west, 5th Street to the south, and Kirkham Street to the east. The Site is currently a vacant undeveloped fenced lot and is proposed to be redeveloped with an 8-story residential facility.
- The currently proposed residential redevelopment project (PLN20-101) was unanimously approved by the City of Oakland Planning Commission on March 3, 2021. An appeal of the 1396 5th Street Project (PLN20-101-A01) has been filed challenging whether the Project complied with CEQA and is pending a final determination by the City of Oakland Planning Department.
- From approximately 1880 through 2003, historical land use at the Site consisted of various food grade industries including yeast and vinegar production (Red Star Yeast Factory) and a brewery. Primary demolition of the main manufacturing buildings and outer structures began in 2003 and continued through 2011 with supplemental removal of sewer connections and structural pilings.
- Between 2004 and 2011, environmental investigations and remedial actions were conducted to support a previously approved senior residential facility at the Site (the “Red Star Senior Apartments”) and included removal/closure in place of four underground storage tanks (USTs) discovered in the sidewalk along 5th Street and excavation/removal of petroleum impacted soil and groundwater from the UST pits in 2006 and 2011, and excavation of 3 to 7 feet of primarily lead impacted fill material across the Site and backfilling with imported fill.
- In 2012 an arson fire destroyed the new senior residential facility project during construction. The Site was subsequently graded following demolition of the damaged structures and left as a vacant undeveloped fenced lot.

- In 2016, additional environmental investigations were conducted under the oversight of ACDEH to evaluate post-fire conditions at the Site and fill material imported to the Site during 2012 redevelopment activities. Based on the investigation results ACDEH closed Cleanup Program Site Case No. RO0002896 in May 2017 based on evaluation of risk under the land use scenario as a vacant fenced lot at the time of case closure, and with the condition that a proposed change in land use be reviewed by ACDEH for re-evaluation of human health risk from subsurface contamination at and in the vicinity of the Site to construction workers and the community during redevelopment activities and the Site users once the redevelopment is complete.
- Results of investigations conducted from 2016 to 2021 indicate residual PCOCs remain in soil, soil vapor, and/or groundwater beneath the Site at concentrations exceeding the San Francisco Bay Regional Water Quality Control Board's 2019 Environmental Screening Levels (ESLs) including volatile organic compounds (VOCs) in soil vapor and groundwater, and polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs) in shallow soil. Further sampling of soil vapor, soil and groundwater is warranted to evaluate the contribution of on- and off-Site sources of the VOCs, and inform the design of remedial actions (if on-Site sources are confirmed) and vapor intrusion mitigation and migration engineering controls (VIMMECs) for the new building.

II. ACDEH CONDITIONAL APPROVAL

With the provision that the information provided to this agency is accurate and representative of currently known Site conditions, ACDEH concurs that implementation of VIMMECs presented in the *Draft CSM and Potential CAP* in conjunction with targeted excavation of shallow PCB impacted soil and/or capping beneath hardscape, and remediation of on-Site sources of VOC impacted groundwater and soil vapor (if identified) will minimize risk to on- and off-Site receptors from exposure to residual subsurface contamination at the Site. Therefore, at this juncture conditionally approves of the proposed Site development project provided the conditionals of approval in this letter are met.

CONDITIONS OF APPROVAL

ACDEH's conditions of approval are provided in ***Attachment 1 – List of Deliverables & Compliance Dates*** and ***Attachment 2 – Deliverable Requirements***. The requisite deliverables must be:

- (a) Submitted to ACDEH by the compliance dates listed in ***Attachment 1*** and approved by ACDEH prior to the start of each of the associated phases of corrective action implementation and Site redevelopment activities.
- (b) Prepared in accordance with the requirements provided in ***Attachment 2***
- (c) Uploaded to the Case file on the State Water Resources Control Board's GeoTracker database in accordance with requirements listed in *Responsible Party(ies) Legal Requirement & Obligations Instructions* included as ***Attachment 3***.

CLOSING

Thank you for your cooperation. ACDEH looks forward to working with OHI to implement corrective actions in conjunction with Site redevelopment activities. If you have any questions, please send me an email message at dilan.roe@acgov.org or Drew York at andrew.york@acgov.org

Sincerely,



Drew J. York
Senior Environmental Scientist

Dilan Roe, PE, C73703
Chief - Land Water Division

Encl.: Attachment 1 – List of Deliverables & Compliance Dates
Attachment 2 – Deliverable Requirements
Attachment 3 – Responsible Party (ies) Legal Requirement/Obligations Instructions

cc: Mark Drollinger, Citadel (*Sent via E-mail to: mdrollinger@citadelehs.com*)
Paresh Khatri, ACDEH (*Sent via E-mail to: paresh.khatri@acgov.org*)
Drew York, ACDEH (*Sent via E-mail to: andrew.york@acgov.org*)
Peterson Vollman, Planner, City of Oakland, (*Sent via E-mail to: pvollmann@oaklandca.gov*)
William Gilchrist, Director of Planning & Building, City of Oakland (*Sent via E-mail to: WGilchrist@oaklandca.gov*)
Carroll Fife, Council Member, City of Oakland – District 3 (*Sent via E-mail to: CFife@oaklandca.gov*)
Tanya Love, Chief of Staff - Council Member Fife, City of Oakland (*Sent via E-mail to: TLove@oaklandca.gov*)
Electronic File, GeoTracker

Alameda County Department of
Environmental Health Local
Oversight Program

Case No.: RO0003500
Global ID: T10000017096
Case Name: The Michaels Organization
Redevelopment
Case Address: 1396 5th Street, Oakland, CA
94607
Directive Letter July 5, 2022
Issue Date:

Attachment 1 – List of Deliverables & Compliance Dates

PURPOSE

This document identifies deliverables requested by Alameda County Department of Environmental Health (ACDEH) for the above referenced Cleanup Site Program (CSP) case and provides compliance dates for submittal of these deliverables. These deliverables are being requested pursuant to ACDEH's conditions of approval for the proposed residential redevelopment project at the subject property.

As required in ACDEH's **directive letter dated July 5, 2022**, ACDEH requests that you prepare the following deliverables in accordance with the requirements provided in **Attachment 2 – Deliverable Requirements** and submit the deliverables to the State Water Resources Control Board's GeoTracker website in compliance with the requirements identified in ACDEH's *Responsible Party(ies) Legal Requirement/Obligations Instructions* included as **Attachment 3**. ACDEH also requests email notification verifying upload of the requested deliverables to the Case file on GeoTracker be provided to the primary caseworker, Drew York (andrew.york@acgov.org).

LIST OF DELIVERABLES AND COMPLIANCE DATES

Subsequent to ACDEH's issuance of this June 30th directive letter for submittal GeoTracker of the following deliverables:

1. REDEVELOPMENT BASELINE SCHEDULE & CAP DESIGN INVESTIGATION DOCUMENTS

- a. **Deliverable:** Baseline Project Schedule
Submittal Compliance Date: Friday, August 5, 2022
File Name: RO3500_PROJ_SCHD_2022-08-05
- b. **Deliverable:** Corrective Action Plan Design Investigation Work Plan
Submittal Compliance Date: TBD based on Baseline Schedule
File Name: RO3500_Final_CAP_WP_YYYY-MM-DD
- c. **Deliverable:** Corrective Action Design Investigation Report
Submittal Compliance Date: TBD based on Baseline Schedule
File Name: RO3500_Inv_CSM_R_YYYY-MM-DD

Recurring deliverable requirements throughout the implementation of corrective actions at the Site for submittal and ACDEH-approval:

2. SCHEDULES AND STATUS REPORTS

- a. **Deliverable:** Updated Project Schedules
Submittal Compliance Date: Monthly after submittal Baseline Project Schedule
File Name: RO3500_UPDATED_PROJ_SCHD_YYYY_MM_DD (first update)
RO3500_UPDATED_PROJ_SCHD_XXXX-XX-XX (subsequent updates)

Attachment 1 – List of Deliverables & Compliance Dates

- b. **Deliverable:** Weekly Status Reports
Submittal Compliance Date: First report is required to be submitted the first Monday after commencement of foundation/hardscape removal or earthwork activities and each Monday thereafter until installation of final groundcover at the Site is completed.
File Name: RO3500_STATUS_R_XXXX-XX-XX

3. GEOTRACKER DATABASE AUDIT

- a. **Deliverable:** GeoTracker Database Compliance Certification Letter
Submittal Compliance Date: Friday, July 22, 2022, and ongoing as field activities are conducted
File Name: RO3500_GEOTRK_AUDIT_2022-07-22

Prior to the start of all site demolition and earthwork activities including grading and remedial excavation, submittal and ACDEH-approval of the following deliverables:

4. REMEDIAL ACTION IMPLEMENTATION PLAN(S)

- a. **Deliverable:** Soil and or Groundwater Remedial Action Implementation Plans and Specifications
Submittal Compliance Date: Ninety (90) days prior to start of redevelopment activities
File Name: RO3500_RAIP_XXXX-XX-XX

5. ONSITE GROUNDWATER MONITORING WELL & SOIL VAPOR PROBE DECOMMISSIONING (IF APPLICABLE)

- a. **Deliverable:** On-Site Groundwater Monitoring Well and Soil Vapor Probe Decommissioning Work Plan
Submittal Compliance Date: Sixty (60) days prior to probe and well decommissioning
File Name: RO3500_WELL_SVP_DCM_WP_XXXX-XX-XX
- b. **Deliverable:** On-Site Groundwater Monitoring Well & Soil Vapor Probe Decommissioning Report
Submittal Compliance Date: Thirty (30) days after decommissioning of probes
File Name: RO3500_WELL_SVP_DCM_R_XXXX-XX-XX

6. DEVELOPER & CONTRACTOR DOCUMENTS

- a. **Deliverable:** Soil Excavation and Construction Sequencing Plan
Submittal Compliance Date: Thirty (30) days prior to start of Site development activities
File Name: RO3500_CONSTRC_SEQ_XXXX-XX-XX
- b. **Deliverable:** Soil & Groundwater Management Plan (SGMP)
Submittal Compliance Date: Ninety (90) days prior to start of Site development activities
File Name: RO3500_SGMP_XXXX-XX-XX
- c. **Deliverable:** Signed SGMP Certification Form (*ACDEH approval not required*)
Submittal Compliance Date: Ten (10) days prior to the start of Site development activities
File Name: RO3500_SGMP_CERT_XXXX-XX-XX

Attachment 1 – List of Deliverables & Compliance Dates

7. PERMITS, PLANS, AND APPROVALS FROM OTHER AGENCIES (ACDEH APPROVAL NOT REQUIRED)

a. Local Planning Department Entitlement Approvals

- i. **Deliverable:** California Environmental Quality Act (CEQA) Compliance Documents
Submittal Compliance Date: Thirty (30) days after City Adoption
File Name: RO3500_DEV_CEQA_XXXX-XX-XX
- ii. **Deliverable:** Redevelopment Project Approval
Submittal Compliance Date: Thirty (30) days after Project Approval
File Name: RO3500_DEV_ENTITLE_XXXX-XX-XX

b. Local Building Department Construction & Demolition Permits

- i. **Deliverable:** Building Permit Plan Set
Submittal Compliance Date: Sixty (60) days prior to the start of Site redevelopment activities
File Name: RO3500_BLD_PERMIT_XXXX-XX-XX
- ii. **Deliverable:** Grading Permits
Submittal Compliance Date: Thirty (30) days prior to the start of Site redevelopment activities
File Name: RO3500_GRADING_PERMIT_XXXX-XX-XX

c. Groundwater Discharge to Sanitary Sewer or Storm Drain Permits

- i. **Deliverable:** East Bay Municipal Utility District (EBMUD) Special Discharge Permit (if discharge to sanitary sewer)
Submittal Compliance Date: Thirty (30) days prior to the start of discharge
File Name: RO3500_EBMUD_DISCH_PERMIT_XXXX-XX-XX
- ii. **Deliverable:** Regional Water Quality Control Board's National Pollutant Discharge Elimination System (NPDES) Permit (if discharge to storm drain)
Submittal Compliance Date: Thirty (30) days prior to the start of discharge
File Name: RO3500_NPDES_PERMIT_XXXX-XX-XX
- iii. **Deliverable:** City of Oakland Permits (Temporary Discharge to Sanitary Sewer System, Sewer Connection, Obstruction)
Submittal Compliance Date: Thirty (30) days prior to the start of discharge
File Name: RO3500_OAKL_SS_PERMITS_XXXX-XX-XX

Prior to backfilling remedial excavations and fill import activities, submittal and ACDEH-approval of the following deliverables:

8. REMEDIAL ACTION COMPLETION & FILL IMPORT DOCUMENTATION

- a. **Deliverable:** Remedial Completion Documentation Submittal Package
Submittal Compliance Date: Fifteen (15) days prior to the start of backfilling

Attachment 1 – List of Deliverables & Compliance Dates

File Name: RO3500_REM_SOIL_EXC_COMP_XXXX-XX-XX

- b. **Deliverable:** Application for Determination of Fill Material Suitability
Submittal Compliance Date: Thirty (30) days prior to the start of backfilling
File Name: RO3500_SOIL_IMPORT_XXXX-XX-XX

Prior to the start of foundation construction and utility installation, submittal and ACDEH-approval of the following deliverables:

9. VAPOR INTURSION MITIGATION & MIGRATION ENGINEERING CONTROLS (VIMMECS)

- a. **Deliverable:** VIMMEC Design Documents
Submittal Compliance Date: Ninety (90) days prior to the start of foundation construction
File Name: RO3500_VIMMEC_DESIGN_XXXX-XX-XX
- b. **Deliverable:** Draft VIMMEC Operations Maintenance, Monitoring & Report (OMM&R) Plan
Submittal Compliance Date: Ninety (90) days prior to the start of foundation construction
File Name: RO3500_DRAFT_OM_PLAN-VIMMEC_XXXX-XX-XX
- c. **Deliverable:** EBMUD Clean Utility Corridor Work Plan
Submittal Compliance Date: Ninety (90) days prior to the start of foundation construction
File Name: RO3500_CUC_XXXX-XX-XX
- d. **Deliverable:** Draft Work Plan Template for Tenant Improvements
Submittal Compliance Date: Ninety (90) days prior to the start of foundation construction
File Name: RO3500_DRAFT_TEN_IMPROV_WP_TEMPLATE_XXXX-XX-XX
- e. **Deliverable:** VIMMEC Construction Quality Assurance Plan
Submittal Compliance Date: Ninety (90) days prior to the start of foundation construction
File Name: RO3500_VIMMEC_CQA_XXX-XX-XX
- f. **Deliverable:** Approved Building Permit Plans with VIMMEC Incorporated (with Transmittal Letter by VIMMEC Design Engineer)
Submittal Compliance Date: Thirty (30) days prior to the start of foundation construction
File Name: RO3500_BLDG_PERMIT_VIMMEC_XXXX-XX-XX
- g. **Deliverable:** VIMMEC Construction Quality Assurance Plan Status Reports
Submittal Compliance Date: After each CQA inspection
File Name: RO3500_VIMMEC_CQA_STATUS_R_XXX-XX-XX

Prior to building occupancy, submittal and ACDEH-approval of the following deliverables:

10. REMEDIAL & CORRECTIVE ACTION COMPLETION REPORTS

- a. **Deliverable:** Soil Remedial Action and Consolidation Completion Report
Submittal Compliance Date: Sixty (60) days after completion of remedial actions
File Name: RO3500_RACR_XXXX-XX-XX

Attachment 1 – List of Deliverables & Compliance Dates

- b. **Deliverable:** Soil Import Summary Report
Submittal Compliance Date: Sixty (60) days after completion of soil import
File Name: RO3500_RACR_XXXX-XX-XX
- c. **Deliverable:** EBMUD Clean Utility Corridor Record Report of Construction
Submittal Compliance Date: Sixty (60) days prior to building occupancy
File Name: RO3500_CUC_RROC_XXXX-XX-XX
- d. **Deliverable:** VIMMEC Record Report of Construction
Submittal Compliance Date: Sixty (60) days prior to building occupancy
File Name: RO3500_VIMMEC_RROC_XXXX-XX-XX
- e. **Deliverable:** Vapor Mitigation System (VMS) Post Construction Performance Monitoring Report(s)
Submittal Compliance Date: Sixty (60) days prior to building occupancy
File Name: RO3500_VMS_PERF_MON_R_XXXX-XX-XX

11. OPERATION, MAINTENANCE, MONITORING AND REPORTING (OMM&R) PLANS

- a. **Deliverable:** Final VIMMEC OMM&R Plan (with As-built plans)
Submittal Compliance Date: Forty-five (45) days prior to building occupancy
File Name: RO3500_FINAL_OM_PLAN-VIMMEC_XXXX-XX-XX
- b. **Deliverable:** Final CAP OMM&R Plan (with As-built plans)
Submittal Compliance Date: Forty-five (45) days prior to building occupancy
File Name: RO3500_FINAL_OM_PLAN_TRENCHDAM_XXXX-XX-XX
- c. **Deliverable:** Final Work Plan Template for Tenant Improvements
Submittal Compliance Date: Forty-five (45) days prior to proposed tenant improvement plans
File Name: RO3500_FINAL_TEN_IMPROV_WP_TEMPLATE_XXXX-XX-XX
- d. **Deliverable:** Financial Assurance Cost Estimate
Submittal Compliance Date: Sixty (60) days prior to building occupancy
File Name: RO3500_FIN_ASSUR_COST_XXXX-XX-XX

12. INSTITUTIONAL CONTROLS

- a. **Deliverable:** Environmental Risk Management Plan
Submittal Compliance Date: Sixty (60) days prior to building occupancy
File Name: RO3500_RMP_XXXX-XX-XX
- b. **Deliverable:** Financial Assurance Instrument
Submittal Compliance Date: Sixty (60) days prior to building occupancy
File Name: RO3500_FIN_ASSUR_XXXX-XX-XX

Throughout the Post-Closure Period, submittal and ACDEH-approval of the following deliverables:

Attachment 1 – List of Deliverables & Compliance Dates

13. COMPLIANCE REPORTS

- a. **Deliverable:** Routine Operations, Maintenance, and Monitoring Report / Site Inspection Reports
Submittal Compliance Date: To be determined in accordance with schedule in Environmental Risk Management Plan
File Name: RO3500_R_OMM_R_XXXX-XX-XX
- b. **Deliverable:** Non-Routine Operations, Maintenance, and Monitoring Report / Site Inspection Reports
Submittal Compliance Date: To be determined in accordance with schedule in Environmental Risk Management Plan
File Name: RO3500_NR_OMM_R_XXXX-XX-XX
- c. **Deliverable:** 5-Year Environmental Review Summary Report
Submittal Compliance Date: To be determined in accordance with schedule in Environmental Risk Management Plan
File Name: RO3500_5YR_RVW_R_XXXX-XX-XX
- d. **Deliverable:** Work Plans for Tenant Improvements
Submittal Compliance Date: Sixty (60) days prior to proposed tenant improvement plans
Risk Management Plan
File Name: RO3500_TEN_IMPROV_WP_XXXX-XX-XX
- e. **Deliverable:** Tenant Improvement Completion Report
Submittal Compliance Date: Sixty (60) days after tenant improvement completion and thirty (30) days prior to tenant occupancy
File Name: RO3500_TENT_IMPROV_COMP_R_XXXX-XX-XX

14. GEOTRACKER COMPLIANCE

- a. **GeoTracker Database Compliance**
Deliverable: Electronic Deliverable Format (EDF), logs, etc.
Submittal Compliance Date: ongoing as investigation and reports are submitted

Alameda County Department of
Environmental Health Local
Oversight Program

Case No.: R00003500
Global ID: T10000017096
Case Name: The Michaels Organization
Redevelopment
Case Address: 1396 5th Street, Oakland, CA
94607
Directive Letter July 5, 2022
Issue Date:

Subject: Attachment 2 – Deliverable Requirements

PURPOSE

The purpose of this document is to identify requisite elements for each of the deliverables requested by Alameda County Department of Environmental Health (ACDEH) as conditions of approval for the proposed residential redevelopment project at the subject property.

As required in ACDEH's **directive letter dated July 5, 2022**, ACDEH requests that you prepare the deliverables listed in **Attachment 1 - List of Deliverables & Compliance Dates** in accordance with the corresponding Technical Comments and Deliverable Requirements provided below and submit the deliverables to the State Water Resources Control Board's GeoTracker website in compliance with the requirements identified in **Attachment 3**.

DELIVERABLE REQUIREMENTS

Subsequent to ACDEH's issuance of this June 30th directive letter for submittal GeoTracker of the following deliverables:

1. REDEVELOPMENT BASELINE SCHEDULE & CAP DESIGN INVESTIGATION DOCUMENTS

- a. **Baseline Project Schedule** – ACDEH requires submittal of a *Baseline Project Schedule* which outlines the path forward at the Site. The purpose of the *Baseline Project Schedule* is to: (1) identify milestones and important target dates, such as the start and end of phases of construction, and the target occupancy date; and (2) facilitate the allocation of resources to allow for reasonable and timely preparation and review of documents. The *Baseline Project Schedule* must include the permitting and phases of construction, and entries for deliverable submittals in accordance with the requisite compliance dates provided in **Attachment 1**. The *Baseline Project Schedule* must include a minimum of 30 days for ACDEH review and approval of deliverables. An example of a schedule can be provided by ACDEH upon request.
- b. **Corrective Action Plan Design Investigation Work Plan** – ACDEH requires submittal of a work plan to collect additional soil, soil vapor, and groundwater samples to evaluate on—and off-Site sources of volatile organic compounds documented in soil vapor and groundwater beneath the Site to inform corrective action plan implementation design documents including plans and specifications for soil and groundwater remediation (if warranted) and environmental engineering controls.
- c. **Corrective Action Plan Design Investigation Report** – ACDEH requires submittal of a report documenting the results of the corrective action implementation of the scope of work in the ACDEH approved work plan.

Recurring deliverable requirements throughout the implementation of corrective actions at the Site for submittal and ACDEH-approval:

1. SCHEDULES AND STATUS REPORTS

- a. **Updated Project Schedules** – The *Project Schedule* is a living document that must be updated throughout the lifecycle of the project as a planning and scheduling tool. Updated *Project Schedules* must be submitted to ACDEH on Monday of each week during implementation of the remedial and potential corrective actions and site redevelopment activities to be reflective of the actual project timetables.
- b. **Weekly Status Reports** – *Weekly Status Reports* must be submitted to ACDEH on Monday of each week during implementation of the remedial and corrective actions and site redevelopment activities. The reports must include at a minimum:
 - i. A description of approved remedial and corrective actions implemented, and discovery of unknown environmental conditions and contingency measures taken during the previous week;
 - ii. A description of approved remedial and corrective actions that are planned to be conducted during the next current week;
 - iii. Documentation showing compliance with the requirements of the *Soil and Groundwater Management Plan (SGMP)* included in the *Remedial Soil Excavation Plan* and the results of community protection monitoring, including:
 - 1) Identification of the number and duration of dust/volatile organic compound (VOC) action level exceedances (collectively, *Action Level Exceedances*);
 - 2) A summary of corrective actions implemented to address *Action Level Exceedances*;
 - 3) A figure depicting the inner quartile range of dust/VOC measurements at each monitoring station;
 - 4) A wind-rose diagram;
 - 5) A statement identifying if a potential unacceptable exposure to contaminated dust or volatile organic compounds (VOCs) occurred during the reporting period;
 - 6) Raw data collected from each monitoring station (as an appendix/attachment); and
 - 7) A copy of the Complaint Log and discussion of complaints received, and mitigation measures taken to resolve the complaints

2. GEOTRACKER DATABASE AUDIT

- a. Based on a brief compliance audit and review of electronic submittal of information (ESI) the Site is not in compliance with ESI requirements.

Attachment 2 – Deliverable Requirements

ACDEH requests Oakland Housing Investors LP conduct a thorough compliance audit in accordance with *Attachment 4* of this directive letter and upload all historical environmental documents related to the subject site including but not limited to the missing soil and groundwater analytical data, documents and reports, maps, and boring logs to GeoTracker.

Prior to the start of all site demolition and earthwork activities including grading and remedial excavation, submittal and ACDEH-approval of the following deliverables:

3. REMEDIAL ACTION IMPLEMENTATION PLAN

- a. **Soil Remedial Action and On-Site Consolidation Implementation Plans and Specifications** – A *RAIP* must be prepared under the direction of a Registered Civil Engineer and submitted to ACDEH for review and approval. An example of the *Remedial Action Implementation Plans and Specifications* can be provided upon request. The *RAIP* must present a comprehensive and detailed plan for implementing the soil excavation and consolidation and capping presented in the *CAP* and additional soil, soil vapor and/or groundwater remediation activities, if warranted. The *RAIP* must include at a minimum the following:

i. **Soil Excavation**

- 1) Detailed figures (plan view and cross sections) delineating the vertical and lateral extent of the selected locations presented in the *Draft CAP* where constituents of concern have been reported above screening levels and additional areas of metal, TPH, and VOC impacts, if warranted.
- 2) Excavation phasing and other measures to minimize volatilization of VOCs in soil and potentially groundwater to outdoor air and exposure to receptors (for example phased demolition of pavement, dewatering, direct load of excavated soil into trucks for immediate off-haul, etc.);
- 3) Shoring and/or other stabilization measures;
- 4) Proposed confirmation sample locations and density, including in-situ soil samples for pre-characterization for offsite disposal at a permitted facility;
- 5) Estimated quantities of soil to be excavated and transported offsite for disposal.
- 6) Protocols for characterizing, segregating, and stockpiling excavated soil based on visual and olfactory observations, PID readings, and analytical results for total petroleum hydrocarbons, VOCs, and other appropriate analytes based on historic land use at the Site including metals associated with historic fill and operations; and

ii. **Consolidation and Capping**

- 7) The *RAIP* must include sufficient detail for the proposed engineering controls including consolidation and construction of the “capped” areas (hardscape and landscape areas). The *RAIP* must describe mitigation measures for areas of the Site not covered by an impermeable cap (e.g. landscaped areas, utility corridors, etc.) including but not limited to proposed clean fill and demarcation layers. Prior to proposing the details of consolidation and/or capping of impacted soil at the Site, ACDEH will require a meeting with the developer and the environmental consultant to discuss the design requirements for capped

areas that must be included in *VIMMEC Design Documents* submitted to ACDEH for review and approval.

iii. **Additional remediation measures**

- 8) Detailed plans for additional corrective actions for soil, groundwater, or soil vapor to reduce the risk to on- and off-site receptors from dissolved phase or vapor phase COCs, if warranted based on results of the site investigation activities mentioned above.

4. **ONSITE GROUNDWATER MONITORING WELL AND SOIL VAPOR PROBES DESTRUCTION (IF APPLICABLE)**

- a. **On-Site Groundwater Monitoring Well and Soil Vapor Decommissioning Work Plan** – A *Work Plan* with a scope of work to properly destroy the On-Site vapor monitoring probes. Alameda County Public Works Agency decommissioning permits must be obtained prior to probe decommissioning, if applicable.
- b. **On-Site Groundwater Monitoring Well and Soil Vapor Decommissioning Report** – A *Report* documenting the permitted destruction of the existing vapor probes in accordance with an approved *Work Plan*. The *Report* must include appropriate documentation (permits, waste disposal documentation, etc.). Final disposal documentation requires full and complete disposal forms, with a minimum of three accepting signatures. Documentation is not required for disposal of non-contaminated material such as vapor probe boxes.

5. **DEVELOPER & CONTRACTOR DOCUMENTS**

- c. **Soil Excavation and Construction Sequencing Plan** – ACDEH requests submittal of a *Soil Excavation and Construction Sequencing Plan* prepared by the Environmental Consultant with input from the Developer and excavation contractor that includes a description of the proposed excavation phasing and other measures to minimize dust and exposure to receptors (for example phased demolition of pavement, use of containerized bins for excavated soil, direct load of excavated soil into trucks for immediate off-haul, etc.) The document must also contain figures illustrating the excavation phasing and other proposed staging areas including but not limited to potential stockpile locations and sequence of subsurface soil disturbance. Non-compliance with community protection measures for dust control as outlined in an ACDEH-approved *SGMP*, will result in a requirement to direct-haul (only) impacted soil from the Site.
- a. **Soil and Groundwater Management Plan (SGMP)** - A *SGMP* must be prepared under the direction of a registered civil engineer or registered geologist and submitted to ACDEH for review and approval. The *SGMP* should describe procedures to be followed by environmental consultants, construction contractors and workers, and other property owner representatives during property improvements, identifying safety and training requirements for construction workers, establishing procedures for assessing and managing contaminated environmental media.
- b. **Signed Construction SGMP Certification Form** – A copy of the *SGMP Certification Form* signed by Oakland Housing Investors LP and all their environmental professionals and contractors associated with implementation of field investigations at the Site certifying that they agree to comply with the ACDEH approved *SGMP*. Please note, before the start of all subsurface and

construction activities are approved at the Site, a copy of the certification form indicated above must be received by this agency.

6. PERMITS, PLANS, AND APPROVALS FROM OTHER AGENCIES (ACDEH APPROVAL NOT REQUIRED)

ACDEH requires copies of all permits, plans, and approvals from other agencies to be uploaded to GeoTracker prior to the start of demolition activities at the Site. ACDEH will review the documents to ensure consistency with ACDEH-approved corrective actions presented in the VIMMECs. At a minimum, these submittals must include the following documents:

- a. **Local Planning Department Entitlement Approvals** – Submittal of the following documents approved by the City of Oakland Planning Department. The documents must be accompanied by a transmittal letter prepared by the Environmental Consultant that states that the documents are consistent with the corrective action implementation plans ACDEH notes that substantial changes may invalidate the conclusions of the protectiveness of the proposed redevelopment of the Site with respect to the residual contamination and the proposed corrective actions presented in the corrective action implementation plans.
 - i. California Environmental Quality Act (CEQA) Compliance Documents and documentation of the date of City adoption
 - ii. Documentation of the redevelopment Project approval by the City of Oakland Planning Department
- b. **Local Building Department Construction & Demolition Permits** – Submittal of the following documents approved by the City of Oakland Building Department. The documents must be accompanied by a transmittal letter prepared by the Environmental Consultant that states that the documents are consistent with the Site development plans and remedial actions presented in the *Final CSM and Finalized CAP*.
 - i. The Building Permit Plan Set
 - ii. Demolition and Grading Permits
- c. **Groundwater Discharge to Sanitary Sewer or Storm Drain Permits** – Submittal of the following permits for discharge of contaminated groundwater to the sanitary sewer or storm drain system.
 - i. East Bay Municipal Utility District (EBMUD) - Special Discharge Permit
 - ii. Regional Water Quality Control Board - National Pollutant Discharge Elimination System (NPDES) permit
 - iii. City of Oakland Permits - Temporary discharge to sanitary sewer, sewer connection, obstruction

Prior to backfilling remedial excavations and fill import activities, submittal and ACDEH-approval of the following deliverables:

7. REMEDIAL ACTION COMPLETION & FILL IMPORT DOCUMENTATION

All contaminated soil exported from the site must be disposed of at an off-Site permitted disposal facility unless otherwise approved by ACDEH. ACDEH requires that imported or exported soil to other than a permitted disposal facility be characterized in accordance with the ACDEH's *Soil Import/Export Characterization Requirements* which was last revised on August 9, 2019 (ACDEH's *Fill Guidance*). The *Fill Guidance* provides requirements for the characterization of soil to determine its suitability for use at another site. These requirements have been prepared to ensure that unsuitable soil is not imported to environmental cleanup sites or exported from environmental cleanup sites to properties with sensitive land uses. The *Fill Guidance* is for characterization of soil only and does not address requirements for characterization of other fill material including, but not limited to: crushed rock, pea gravel, recycled concrete, or flowable material.

At this time, ACDEH is exempting virgin concrete or flowable fill materials and virgin aggregates from characterization requirements presented in ACDEH's *Fill Guidance*. Written approval is required from ACDEH prior to the import or on-Site re-use of recycled aggregates (including crushed concrete or asphalt). Please be advised that ACDEH has adopted the New Jersey Department of Environmental Protection Solid and Hazardous Waste Management Program's *Guidance for Characterization of Concrete and Clean Material Certification for Recycling* dated January 12, 2010, and *Recycled Asphalt Pavement and Asphalt Millings Reuse Guidance* dated March 2013 amended with applicable ESLs.

- a. **Remedial Action Completion Documentation Submittal Package** – A submittal package with a transmittal letter prepared by the Environmental Consultant documenting that remedial soil excavation has been completed in accordance with the *Draft RAIP* and *SGMP*. The submittal package must be submitted to ACDEH for review and approval prior to backfilling remedial excavations. ACDEH suggests the submittal package be submitted via email correspondence to facilitate quick review and backfill approval. At a minimum, the report must include scaled figures (plan views and cross-sections) showing confirmation sampling locations and extents of excavation, tabulated volumes of soil excavated disposition (on-Site stockpile, direct haul to off-Site disposal facility, on-Site consolidation), volumes of contaminated groundwater removed and disposition (temporary storage in on-Site tanks, discharged to sanitary sewer or storm drain- if warranted), subsurface infrastructure removed and disposition, tabulated soil and groundwater analytical results compared to cleanup goals, and draft soil and groundwater laboratory analytical reports.
- b. **Application for Determination of Fill Material Suitability** – If soil is imported to the Site for construction or as part of an environmental engineering controls, ACDEH requires the submittal of the *Application for Determination of Fill Material Suitability* to support requirements outlined in ACDEH's *Fill Guidance*. Submittal of the application and requisite supporting documents must be submitted to ACDEH for review and approval prior to import of fill. Requisite documents are outlined in the *Application* and include but are not limited to proposed sources, sampling and profiling protocols, analytical laboratory reports, and tables with analytical results and applicable environmental screening levels.

Prior to the start of foundation construction and utility installation, submittal and ACDEH-approval of the following deliverables:

8. VAPOR INTURSION MITIGATION & MIGRATION ENGINEERING CONTROLS (VIMMECS)

- a. **VIMMEC Design Documents** – Description of proposed corrective actions presented in the *Final CSM and Finalized CAP* include but are not limited to the installation of VIMMECs consisting of the vapor barrier, passive sub-slab venting system beneath buildings, and trench plugs within utility corridors. *VIMMEC Design Documents* must be prepared by a Registered Civil Engineer and submitted to ACDEH for review and approval. The *VIMMEC Design Documents* must include a basis of design report (*BOD Report*) that identifies design objectives, assumptions, engineering calculations, and construction quality assurance and quality control measures (*CQA/CQC*); construction plan set and specifications (*Plans & Specs*); and an Operations, Maintenance, Monitoring and Reporting (*OMM&R*) Plan including post-construction/pre-occupancy VIMMEC system testing procedures, and long-term operation and maintenance. The *BOD Report* and *Plans & Specs* must be prepared with sufficient detail to evaluate the validity, constructability, and design performance of the engineering controls. The *BOD Report*, *Plans & Specs*, and *OMM&R Plan*. The ACDEH approved VIMMEC *Plans & Specs* must be incorporated into the building and utility construction plans and specifications.
- b. **Draft VIMMEC OMM&R Plan** – A *Draft VIMMEC OMM&R Plan* for VIMMECs. The *Draft Plan* must include, at a minimum, VIMMEC components proposed to be installed with specifications; responsible party information; details of required OMM&R activities; emergency contacts and protocols in case of system failure; and copies of the field forms to be completed during routine and emergency inspections.
- c. **East Bay Municipal Utility District (EBMUD) Clean Utility Corridor (CUC) Work Plan** – A *Draft EBMUD CUC Work Plan* to install clean utility corridors for the connection of EBMUD service to the Site. The Work Plan must include EBMUD’s specifications for the demarcation fabric and pipe bedding and backfill; construction plans (plan view and cross sections) showing locations of environmental samples collected at the site in the vicinity of the alignment and the location and specification of trench dams for vapor migration control; project schedule showing the coordination during the clean corridor installation with proposed dates for inspections of trench dams and submittal of documents to and approval by this agency; a figure showing the location of the temporary trench spoil stockpiling; reporting requirements including clean fill documentation to ACDEH prior to backfill and a record report of construction of the clean corridor for ACDEH review and approval; and reference to an attachment with the site SGMP updated to be reflective of developed conditions.
- d. **Draft Work Plan Template for Tenant Improvement** – A template work plan presenting requirements for the implementation of tenant improvement activities identified in burdened activities in the *Environmental RMP*. The template requirements must demonstrate compliance with the *Environmental RMP*, *Final OMM&R Plans*, and the *SGMP* as applicable. Other template requirements include a copy of the City of Oakland approved Building Permit Plan set.
- e. **VIMMEC Construction Quality Control/Quality Assurance Plan** – A comprehensive report that identifies the members and responsibilities of the CQA Team and documents procedures and

Attachment 2 – Deliverable Requirements

protocols that will be implemented by the CQA team during construction and testing of the *VIMMECs* to ensuring compliance with the ACDEH approved *Plans & Specs*. The CQA Plan must include at a minimum:

- i. **Material Quality Control and Quality Assurance** – Identification of measures for ensuring that materials are free from defect prior to installation.
 - ii. **Material Storage** – Declaration of materials storage criteria and requirements
 - iii. **Installer Qualifications** – Declaration of the minimum qualifications for installers. At a minimum, installers for barrier systems must be certified by the manufacturer. Contractors installing probes installed at a depth greater than 4.9 feet bgs must have a C-57 drillers license.
 - iv. **Inspections** – Identification of minimum required inspections and triggers for additional inspections. This identification must include sequencing with other disciplines and must also include copies of forms that will be completed by the CQA inspector at the end of each inspection.
 - v. **Inspector Qualifications** – Declaration of the minimum qualifications for inspectors.
 - vi. **Protective Measures and Prohibited Work Practices** – Description of protective measures and prohibited work practices intended to limit potential damage to the *VIMMECs* during construction.
 - vii. **Materials and Installation Testing** – Requirements for testing installed system components (e.g., seam tensile test, coupon test, wet mil test, smoke test) and triggers for additional testing requirements. At a minimum, the type, frequency, and passing conditions for each test must be included. Contingencies for how failures will be addressed must be included.
- f. **Approved Building Permit Plans with *VIMMEC* Incorporated** – A copy of the City of Oakland approved *Building Permit Plan Set* for site redevelopment incorporating the *VIMMECs* must be submitted to ACDEH for review to verify that the *VIMMECs* have been incorporated into the plans as approved by ACDEH. Submittal of the *Building Permit Plan Set* must be accompanied by a transmittal letter prepared by the *VIMMEC* Design Engineer that states that the plans are consistent with the ACDEH approved *BOD Report* and *Plans & Specs* and identifies plan sheets where the *VIMMEC* design elements are incorporated.
- g. ***VIMMEC* Construction Quality Assurance Plan Status Reports** – Reports documenting the status of the *VIMMEC* installation and testing. The reports must be signed by the CQA Engineer with Responsible Charge and include at a minimum photo-logs and CQA Inspection Sheets.

Prior to building occupancy, submittal and ACDEH-approval of the following deliverables:

9. REMEDIAL ACTION COMPLETION REPORTS

- a. **Soil Remedial Action and Consolidation Completion Report (*RACR*)** – A comprehensive report documenting implementation of the remedial and consolidation actions presented in the *Final*

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CAP, and *RSEP* demonstrating that remedial action objectives have been met or identifying any remedial action objectives that have not yet been met. The *RACR* must include as-built drawings and photo documentation and must include a certification by the remedial action design engineer that the remedial measures were implemented in accordance with the approved *RACP*. The *RACR* must also include copies of all permits and must document at a minimum the following (if applicable):

- i. Description of the remedial soil excavation activities including at a minimum the information submitted in the *Remedial Soil Excavation Completion Documentation Submittal Package*, the final disposition of soil (on-Site consolidation and capping, off-Site disposal), a figure depicting the surveyed locations and depths of consolidated lead impacted soil, copies of all manifests or other waste disposal documentation, and final laboratory analytical reports for soil confirmation samples and pre-characterization results of in-situ sampling and/or stockpiling sampling for soil disposed of off-Site.
 - ii. Description of groundwater removal activities with supporting documentation, including but not limited to tables, figures, laboratory analytical reports, copies of discharge reports, and corrective actions associated with unauthorized releases during construction activities.
 - iii. Description of removal of subsurface infrastructure in source areas (e.g., oil/water separation and piping, sanitary sewer laterals) and copies of waste manifests.
 - iv. Description of discovery of unexpected subsurface structures (e.g., tanks, vaults, sumps), contingency measures implemented, and copies of laboratory analytical reports and waste manifests.
 - v. Certification of compliance with the *SGMP* protocols during implementation of remedial measures including but not limited to agency notification and reporting requirements, pre-field activities (site security and access, traffic control, excavation permits, notification and utility clearance), waste management, soil and groundwater management, storm water management, dust and odor emission control, and contingency measures for discovery of unexpected underground structures.
 - vi. As-built plans showing the surveyed locations of consolidated impacted soil (plans and cross-sections)
 - vii. Photo-logs and field notes
- b. **Soil Import Summary Report**– If soil is imported to the Site, a *Report* documenting the import/export of soil (if not disposed of at a permitted disposal facility) must be drafted in accordance with the *Fill Guidance*. The *Report* must be uploaded to the GeoTracker information repositories for both the fill material source area and the destination. At a minimum the *Report* must include the following:
- i. A cover letter from the owner of the proposed fill source material that states, at a minimum, the following: “I have read and acknowledge the content, recommendations, and/or conclusions contained in the attached document or report submitted on my behalf to ACDEH.” This cover letter must be signed by the owner of the proposed fill source material or a legally authorized representative of the owner of the proposed fill source material.

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- ii. A statement that fill material characterization was conducted under the responsible charge of a Qualified Professional. This statement must be accompanied by the signed and dated seal of the Qualified Professional with responsible charge.
 - iii. Summary tables of soil import logs. These logs must include the following information for each delivery of fill material: arrival date, manifest number or truck tag, quantity of fill material delivered, originating facility, and profile number.
 - iv. A figure depicting the location and depth of imported soil. If fill material from multiple sources has been imported, the location and depth of imported soil from each source must be distinguished.
 - v. Copies of all manifests or other documentation of soil import as an appendix.
 - vi. Copies of all fill characterization profiles as an appendix.
- h. **Clean Utility Corridor (CUC) Record Report of Constriction (RROC)** – A comprehensive report documenting the installation of clean utility corridors; construction quality assurance (CQA) activities and observation and findings during construction of the *CUCs*; and clean fill documentation. The *RROC* must include as-built drawings, photo documentation, certification by the CQA Manager that the completed *CUC* was installed in accordance with the ACDEH approved *Work Plan*.
- c. **VIMMEC Record Report of Construction (RROC)** – A comprehensive report documenting the CQA activities and observation and findings during construction of the *VIMMECs* including vapor mitigation systems (VMS) beneath buildings and trench dams/plugs in utility corridors. The *RROC* must include as-built drawings, photo documentation, certification by the CQA Manager and VIMMEC Design Engineer that the completed VIMMEC and utility trench plugs were installed in accordance with the ACDEH, approved *BOD Report* and *Plans & Specs*.
- d. **VMS Post Construction Performance Monitoring Report(s)** – A *Report* documenting the results of the VMS performance monitoring (indoor air, sub-slab soil vapor, and vent riser sampling) and certification by the VIMMEC Design Engineer that the VMS is functioning as designed.

10. OPERATION, MAINTENANCE, MONITORING AND REPORTING (OMM&R) PLANS

- a. **Final VIMMEC and CAP OMM&R Plan** – A *Final VIMMEC OMM&R Plan* for the vapor mitigation engineering controls. The *VIMMEC OMM&R Plan* must include, at a minimum documentation of the installed *VIMMEC* components, including As-Built drawings and specifications, survey coordinates of the trench dams, and photo documentation; responsible party information; details of required OMM&R activities; emergency contacts and protocols in case of system failure; and copies of the field forms to be completed during routine and emergency inspections.
- b. **Final Work Plan Template for Tenant Improvement** – A Final template for *Tenant Improvement Work Plan* presenting requirements for the implementation of tenant improvement activities identified in burdened activities in the *Environmental RMP*. The template requirements must demonstrate compliance with the *Environmental RMP*, *Final OMM&R Plans*, and the *SGMP* as

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applicable. Other template requirements include a copy of the City of Oakland approved Building Permit Plan set.

- c. **Financial Assurance Cost Estimate** – Cost estimates for the continued implementation and maintenance of the *VIMMECs*. The details of this financial cost estimates must be developed by the project proponent and ACDEH as design plans are finalized and approved. The cost estimates must provide estimates to construct, monitor, and provide regulatory oversight costs for long-term operations and maintenance of the *VIMMECs*. Estimates of these costs must be based, in part, on the cost estimates for project implementation that are established in the *RSEP* and *OMM&R Plans*.

11. INSTITUTIONAL CONTROLS

- a. **Environmental Risk Management Plan (RMP)** – A *Environmental RMP* for long-term site management plan written for the property owner to facilitate compliance with the requirements of the *Deed Restriction*. The *Environmental RMP* is a communications document for non-technical audiences identifying the location of residual COCs, potential deleterious health effects from exposure to COCs, and engineering, administrative, and institutional controls that are implemented at the Site to control unacceptable risk due to exposure from COCs. The *Environmental RMP* must include sufficient detail that non-technical staff can identify what work practices are unacceptable and can identify engineering controls if encountered. The *Environmental RMP* must also include communications and reporting requirements so that, in the event the engineering controls are encountered, the appropriate professionals and regulatory agencies can be notified to ensure that the integrity of the engineering controls is maintained.
- b. **Financial Assurance Instrument** – Documentation of an appropriate financial instrument to assure ACDEH of implementation and maintenance of the *VIMMECs*. The details of this financial assurance must be worked out by the project proponent and ACDEH as design, construction, and monitoring plans are finalized and approved. The financial assurance instrument must provide for sufficient funds to construct, monitor, and provide regulatory oversight costs for long-term operations and maintenance of the *VIMMECs*. Estimates of these costs must be based, in part, on the cost estimates for project implementation that are established in the *Updated CAIP* and *OMM&R Plans*.

Throughout the Post-Closure Period, submittal and ACDEH-approval of the following deliverables:

12. COMPLIANCE REPORTS

- a. **Routine Operations, Maintenance, and Monitoring Report / Site Inspection Reports** – A report documenting compliance with the *Environmental RMP* and the *OMM&R Plan*. At a minimum, this report must include the following elements:
 - i. Narrative description of environmental activities (e.g. site inspections, sampling, maintenance) and/or activities covered by the *Environmental RMP* (e.g. earthwork, utility work, slab modifications or penetrations) that were completed during the reporting period;
 - ii. Narrative description of the environmental activities or activities covered by the *Environmental RMP* that are planned for implementation during the next reporting period;

Attachment 2 – Deliverable Requirements

- iii. Results of the physical condition inspection for accessible elements of the engineering controls, including a photo-log with representative photographs;
 - iv. Tabulated results of the monitoring of performance metrics;
 - v. An evaluation of the current condition and performance of engineering controls, including a statement that the engineering controls are or are not achieving design objectives;
 - vi. Identification of any tenant or ownership changes that occurred during the reporting period;
 - vii. Signed tenant acknowledgement and compliance statements;
 - viii. Copies of field inspection forms and/or maintenance logs; and
 - ix. Updates to the *RROC* as “redline” drawings as necessary.
- b. **Non-Routine Operations, Maintenance, and Monitoring Report / Site Inspection Reports** – A report documenting the implementation of non-routine site inspections and/or maintenance and monitoring activities. Submittal of this report is required when trigger conditions identified in the *Environmental RMP* are met (e.g. earthquake, un-planned/emergency utility work within burdened areas, unanticipated damage to engineering controls or slab foundation). At a minimum, this report must include the following elements:
- i. Identification of the conditions that triggered the non-routine report;
 - ii. Description of the Scope of Work implemented;
 - iii. Documentation of compliance with requirements of the *Environmental RMP* and *OMM&R Plan*;
 - iv. An evaluation of the condition and performance of engineering controls against design objectives after completion of the scope of work;
 - v. Identification of any outstanding environmental issues;
 - vi. Copies of field inspection forms and/or maintenance logs; and
 - vii. Updates to the *RROC* as “redline” drawings as necessary.
- c. **5-Year Environmental Review Summary Report** – A *Report* presenting an evaluation of the performance and adequacy of the engineering and administrative controls that have been implemented at the Site in accordance with the requirements of the *OMM&R Plan* and the *Environmental RMP*. This *Report* may be combined with a *routine Operations, Maintenance, Monitoring, and Reporting Plan* or submitted as a stand-alone document and must, at a minimum have each of the following additional elements:

Attachment 2 – Deliverable Requirements

- i. Results of the collection of risk metrics (collection of concentration data from applicable source area, point of control, and point of exposure);
 - ii. An evaluation on the performance of the engineering and administrative controls;
 - iii. An evaluation on the adequacy of the current financial assurance mechanisms;
 - iv. An evaluation on if termination criteria have been met; and
 - v. Recommendations for modifications or termination of the administrative or engineering controls.
- d. **Work Plans for Tenant Improvement** – A *Work Plan* presenting a scope of work for the implementation of tenant improvement activities identified in burdened activities in the *Environmental RMP*. The scope of work must demonstrate compliance with the *Environmental RMP*, *OMM&R Plans*, and the *SGMP* as applicable. The *Work Plan* must include a copy of the City of Oakland approved Building Permit Plan set.
- e. **Tenant Improvement Completion Report** – A *Report* documenting the implementation of an ACDEH approved Work Plan for Tenant Improvement and demonstrating compliance with the *Environmental RMP*, *OMM&R Plans*, and the *SGMP* as applicable. The *Report* must include As-built drawings of the tenant improvements.

13. GEOTRACKER COMPLIANCE

- a. **GeoTracker Database Compliance** - On-going compliance by uploading all environmental documents related to the subject site including but not limited soil, groundwater and soil vapor analytical data, monitoring well depth-to-water measurements, and surveyed location and elevation data for sampling locations, documents and reports, maps, and boring logs to GeoTracker.

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	REVISION DATE: May 19, 2020
	ISSUE DATE: July 25, 2012
	PREVIOUS REVISIONS: September 17, 2013, May 15, 2014, December 12, 2016, December 14, 2017
SECTION: ACDEH Procedures	SUBJECT: Responsible Party(ies) Legal Requirements / Obligations

REPORT & DELIVERABLE REQUESTS

Alameda County Department of Environmental Health (ACDEH) Cleanup Oversight Programs, Local Oversight Program (LOP) and Site Cleanup Program (SCP) require submission of all reports in electronic form to the State Water Board's (SWB) GeoTracker website in accordance with California Code of Regulations, Title 23, Chapter 30, Division 3, Article 2, Section 3892 and Chapter 16, Article 11, Division 3.

Leaking Underground Fuel Tank (LUFT) Cases

Reports and deliverable requests are pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party (RP) in conjunction with an unauthorized release from a petroleum underground storage tank (UST) system.

Site Cleanup Program (SCP) Cases

For non-petroleum UST cases, reports and deliverables requests are pursuant to California Health and Safety Code Section 101480.

ELECTRONIC SUBMITTAL OF REPORTS

A complete report submittal includes the PDF report and all associated electronic data files, including but not limited to GEO_MAP, GEO_XY, GEO_Z, GEO_BORE, GEO_WELL, and laboratory analytical data in Electronic Deliverable Format™ (EDF). Additional information on these requirements is available on the State Water Board's website (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)

- Do not upload draft reports to GeoTracker
- Rotate each page in the PDF document in the direction that will make it easiest to read on a computer monitor.

GEOTRACKER UPLOAD CERTIFICATION

Each report submittal is to include a GeoTracker Upload Summary Table with GeoTracker valid values¹ as illustrated in the example below to facilitate ACDEH review and verify compliance with GeoTracker requirements.

GeoTracker Upload Table Example

Report Title	Sample Period	PDF Report	GEO_MAPS	Sample ID	Matrix	GEO_Z	GEO_XY	GEO_BORE	GEO_WELL	EDF
2016 Subsurface Investigation Report	2016 S1	✓	✓	Effluent	SO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
2012 Site Assessment Work Plan	2012	✓	✓			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2010 GW Investigation Report	2008 Q4	✓	✓	SB-10	W	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
				SB-10-6	SO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
				MW-1	WG	✓	✓	✓	✓	✓
				SW-1	W	✓	✓	✓	✓	✓

¹ GeoTracker Survey XYZ, Well Data, and Site Map Guidelines & Restrictions, CA State Water Resources Control Board, April 2005

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	REVISION DATE: NA
	ISSUE DATE: December 14, 2017
	PREVIOUS REVISIONS: September 17, 2013, May 15, 2014, December 12, 2016
SECTION: ACDEH Procedures	SUBJECT: Responsible Party(ies) Legal Requirements / Obligations

ACKNOWLEDGEMENT STATEMENT

All work plans, technical reports, or technical documents submitted to ACDEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to the State Water Board's GeoTracker website." This letter must be signed by the Responsible Party, or legally authorized representative of the Responsible Party.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6731, 6735, and 7835) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately licensed or certified professional and include the professional registration stamp, signature, and statement of professional certification. Additional information is available on the Board of Professional Engineers, Land Surveyors, and Geologists website at: <http://www.bpelsg.ca.gov/laws/index.shtml>.

UNDERGROUND STORAGE TANK CLEANUP FUND

For LUFT cases, RP's non-compliance with these regulations may result in ineligibility to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse the cost of cleanup. Additional information is available on the internet at: https://www.waterboards.ca.gov/water_issues/programs/ustcf/

AGENCY OVERSIGHT

Significant delays in conducting site assessment/cleanup or report submittals may result in referral of the case to the Regional Water Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.