AEI Consultants
Environmental & Engineering Services

July 6, 2017
Revised August 3, 2017

LIMITED PHASE II SUBSURFACE INVESTIGATION

Property Identification:
4300 Broadway
Oakland, California 94611

AEI Project No. 373403

Prepared for:
4336 Broadway LLC
4336 Broadway
Oakland, California 94611

Prepared by:
AEI Consultants
520 3rd Street, Suite 209
Oakland, CA 94607

Environmental & Engineering Due Diligence

Site Investigation & Remediation

Energy Performance & Benchmarking

Industrial Hygiene

Construction Consulting

Construction, Site Stabilization & Stormwater Services

Zoning Analysis Reports & ALTA Surveys

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July 6, 2017, ***Revised August 3, 2017***

Mr. Patrick Feeley
4336 Broadway LLC
4336 Broadway
Oakland, California 94611

Subject: **Limited Phase II Subsurface Investigation**
4300 Broadway
Oakland, California 94611
AEI Project No. 373403

Dear Mr. Feeley:

AEI Consultants (AEI) is pleased to present this report which describes the activities and results of the limited Phase II subsurface investigation performed at 4300 Broadway in Oakland, California ("the Site"). This investigation was performed in general accordance with the authorized scope of services outlined in AEI's proposal dated May 30, 2017 (AEI Proposal Number 52275). The Site location is depicted on Figure 1.

AEI performed a Phase I Environmental Site Assessment (ESA) for the Site as detailed in the report dated May 15, 2017. According to the Phase I ESA findings, the Site appears to have been developed with a gasoline service station from 1928 to 1972. The purpose of this investigation was to attempt to locate the former underground storage tank (UST) system associated with the former gasoline station and evaluate whether subsurface conditions (i.e., soil gas, soil, and/or groundwater) have been impacted by the former gasoline service station activities. Information regarding the Site description, background, scope of work, findings, conclusions, and recommendations are provided in the following sections.

1.0 SITE DESCRIPTION

The Site is located north of the intersection at Broadway and Mather Street, in a commercial and residential area of Oakland, California. The Site is improved with a single-story building totaling approximately 4,758 square feet. The remainder of the property is improved with solid waste dumpster enclosures, asphalt-paved parking areas, and associated landscaping. The property is currently occupied by Thistle dba The Munchery with on-site operations consisting of food preparation.

2.0 BACKGROUND

According to the 2017 Phase I ESA by AEI, the Site appears to have been developed with a gasoline service station from 1928 to 1972. In 1974 the current commercial building was constructed. Since construction of the current building, the Site has been occupied by Color Tile (1974 to at

least 1992), East Bay Glass Center (at least 1976), Genova Factory and Deli (at least 1997 to 2017), and Thistle dba The Munchery (2017 to present).

3.0 SCOPE OF WORK

The purpose of this investigation was to evaluate whether USTs associated with the former gasoline station remain on-site and to assess whether gasoline service station activities have impacted the Site. The investigation activities are summarized below.

3.1 Health and Safety Plan

A Site-specific health and safety plan was prepared, reviewed by on-site personnel, and kept on-site for the duration of the fieldwork.

3.2 Permitting and Utility Clearance

Prior to field activities, exterior boring locations were marked with white paint and interior sub-slab soil gas sampling point locations were marked with blue tape. Upon marking, the public underground utility locating service Underground Service Alert (USA) North was notified to identify public utilities in the work area. AEI also contracted Ground Penetrating Radar Systems, Inc. (GPRS) of Oakland, California to perform private utility clearance and evaluate the presence of underground utilities around planned boring locations using electromagnetic field detection. A drilling permit, included herein as Appendix A, was obtained from the Alameda County Public Works Agency (ACPWA) for this investigation.

3.3 Geophysical Survey

On June 19, 2017, a geophysical survey was conducted by GPRS (see Appendix B). The purpose of the survey was to evaluate the potential presence of current or former USTs. The geophysical survey was conducted using a magnetometer and ground penetrating radar (GPR). The results from the geophysical survey indicated no apparent anomalies to signify possible USTs or related objects. However, an area of asphalt patch located on the Site parking lot suggests that there could have been an excavation at one point. An "unknown" finding in the area of the asphalt patch was detected by the GPR at approximately two-feet below ground surface (bgs). On-site soils allowed for GPR depth penetration of 3 to 5 feet bgs at most areas.

3.4 Exploratory Borings

On June 23, 2017, AEI contracted Environmental Control Associates, Inc. of Aptos, California to advance three soil borings (SB-1, SB-2, and SB-3) at the Site for the collection of soil and groundwater samples. Each soil boring was advanced using a truck-mounted direct push rig to a boring termination depth of approximately 16 feet bgs. Drilling operations were overseen by an experienced, environmental professional under the supervision of an AEI State of California-licensed Professional Engineer. The locations of the borings are shown on Figure 2.

3.4.1 Soil Sampling

The borings were continuously sampled throughout their entire depths for the purposes of lithologic logging, field screening (headspace testing), and laboratory analyses. Soil samples were obtained using a single-walled coring system approximately 2.25 inches in diameter and 4 feet in length containing plastic liners. The coring system was connected to 1-inch diameter, flush-jointed drill rod

that was hydraulically driven by the rig to each target sample depth. Upon retrieval from each sample depth interval, the coring system was opened, and the liners were removed and cut for visual inspection, lithologic logging purposes, and sample preparation for potential laboratory analyses. Recovered soil samples were examined for soil classification and described on detailed boring logs in general conformance with the Unified Soil Classification System (USCS). Additional lithologic descriptions and drilling information were recorded on the boring logs presented in Appendix C.

Selected soil samples were collected within the sample liner, and sealed with Teflon tape and plastic end caps. Upon collection, the samples were labeled, entered onto chain-of-custody documentation, and placed into a chilled ice chest for transport to the analytical laboratory.

3.4.2 Headspace Testing

Headspace testing was performed with a photo-ionization detector (PID) equipped with an electrodeless 10.6 eV ultraviolet lamp or equivalent for detecting the presence of total volatile organic compounds (VOCs) in the soil samples. To initiate the headspace testing procedure, soil samples were removed from the sample liners, placed into labeled, plastic bags, and sealed for conducting the tests. After sufficient time had elapsed for vapor build-up inside the bags, each bag was punctured with the probe tip of the PID to allow for measurement of the headspace. Measurements of the headspace were obtained in the parts per million (ppm) range for total VOCs. The PID readings were recorded on the boring logs presented in Appendix C.

3.4.3 Grab Groundwater Sampling

Groundwater was encountered within each soil boring, SB-1, SB-2, and SB-3, observed at depths between 9.6 and 15.6 feet bgs. Upon encountering groundwater, temporary wells consisting of 0.75-inch diameter, slotted, polyvinyl chloride (PVC) casing were installed in the borings to facilitate sample collection. Groundwater samples were collected using a peristaltic pump attached to clean polyethylene tubing with the bottom of the tubing positioned near the bottom(s) of the temporary wells. Upon collection, the samples were transferred into appropriate, laboratory-supplied, sample containers. The containers were sealed such that no head-space or air bubbles were visible within the containers.

After collection, the sample bottles were labeled with the project name, project number, boring number, and sampling date/time of sampling. After labelling, the samples were placed into an ice-chilled ice chest for transport to the analytical laboratory. Chain-of-custody documentation was completed and accompanied the samples to the analytical laboratory.

3.5 Sub-Slab Soil Gas Sampling Points

Three temporary sub-slab soil gas sampling points (SS-1, SS-2, and SS-3) were installed and sampled on June 23, 2017, in general accordance with the guidelines presented in the *Advisory: Active Soil Gas Investigations*, prepared by the California Department of Toxic Substances Control (DTSC), et al., dated July 2015. The sampling points were installed inside the Site building and spatially positioned to assess potential subsurface impacts. The locations of the sub-slab gas sampling points are shown on Figure 2.

The sampling points were advanced using a percussive, roto-hammer drill. The points were advanced to an approximate depth of 0.8 feet bgs into the engineered fill underlying the concrete slab-on-grade foundation for the building. The sampling probes at each point were positioned

approximately 2 to 3 inches into the fill material below the base of the building foundation. Upon installation, sand was poured around each probe tip. The tops of the sand packs were positioned slightly below the base of the building foundation. Dry granular bentonite was placed above the sand pack and extended upward to the ground surface. Sufficient water was intermittently added to hydrate the upper portion of the granular bentonite to ensure proper sealing during sampling activities.

After waiting approximately 120 minutes for the probe to equilibrate with the surrounding soil, a shut-in test was performed to check for leaks in the above-ground sampling manifold. The shut-in test was performed by exerting a vacuum on the sealed above-ground manifold with a six-liter purge canister for at least one minute or longer. If there was any observable loss of vacuum, the fittings were adjusted until the vacuum in the sample train did not noticeably dissipate. All fittings used for the soil gas sampling train consisted of Swagelok® type fittings.

Following the shut-in test and purging, a soil gas sample was collected from the sub-slab soil gas sampling probe. A leak check was performed by introducing and maintaining helium in the ambient air within a plastic shroud placed around the sample apparatus for the duration of the sample collection. The soil gas samples were collected using a laboratory-provided sampling manifold (sampling train) with an average flow rate of 167 milliliters per minute. The soil gas samples were collected into one-liter Summa™ canisters. Sampling was completed with a slight vacuum remaining in the canisters. The samples were labeled with the project name, project number, sample ID, and sampling date/time of sampling. After labelling, the samples were transported to the analytical laboratory under chain-of-custody documentation.

3.6 Boring Destruction

Upon completion of drilling and removal of temporary well construction materials, the borings were backfilled with a neat cement grout using tremie methods, as appropriate, in accordance with the permitting requirements. The grout mixture consisted of one 94-pound bag of Portland Type I/II cement to every 5-gallons of water. The borings were capped either with concrete with black dye or asphalt patch to match existing grade.

Upon completion of soil gas sampling activities, the sub-slab soil gas probe construction materials were removed and the core backfilled with a neat cement grout.

3.7 Investigation-Derived Waste

Drilling and sampling equipment were decontaminated using a triple rinse system with the initial rinse consisting of an Alconox and tap water solution, followed by the second and third rinses consisting of tap water rinses.

Investigation-derived waste was left on-site in a labelled five-gallon bucket with a secured lid. Disposition of the waste will be dependent upon the analytical results. Upon receipt of the laboratory analytical results and waste profiling, removal and transport of the waste to an appropriate disposal facility can be arranged and implemented upon Client request and approval.

4.0 LABORATORY ANALYSES

Soil and groundwater samples were submitted to McCampbell Analytical, Inc. of Pittsburg, California for laboratory analyses, and sub-slab soil gas samples were submitted to ESC Lab Sciences of Mt. Juliet, Tennessee for analysis.

Laboratory analysis of soil and groundwater samples consisted of the following:

- Total Petroleum Hydrocarbons (TPH) multi-range using US EPA Testing Method 8015M; and
- Volatile organic compounds (VOCs) using US EPA Method 8260.

Laboratory analysis of sub-slab soil gas samples consisted of the following:

- VOCs using US EPA Method TO-15; and
- The leak check compound helium using ASTM D 1946-90.

5.0 FINDINGS

5.1 Lithology and Hydrogeology

Sediment encountered consisted of silty and sandy clays through the boring termination depth of 16 feet bgs. No visual or olfactory evidence (i.e., soil discoloration, odor) of potentially-impacted soils was observed in soils that were recovered during drilling activities. Groundwater was encountered between approximately 10 and 15 feet bgs during drilling activities at the Site. Based upon topographic map interpretation, the direction of groundwater flow beneath the Site is inferred to be to the southwest.

5.2 Soil Sample Analytical Results

Table 1 presents a summary of the soil sample analytical results. PID readings measured during the headspace testing showed VOC concentrations no greater than 1.9 ppm. Laboratory analytical documentation is provided in Appendix C.

For the purpose of providing context to the data, the analytical results were compared to the February 2016 California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) Tier 1 Environmental Screening Levels (ESLs).

The results can be summarized as follows:

- Total petroleum hydrocarbons in the diesel range (TPHd) were detected at a concentration of 27 milligrams per kilogram (mg/kg), in the sample collected from boring SB-3. The Tier 1 ESL for TPHd is 230 mg/kg.
- Total petroleum hydrocarbons in the motor oil (TPHmo) range were detected at a concentration of 360 mg/kg, in the sample collected from boring SB-3. The Tier 1 ESL for TPHmo is 5,100 mg/kg.
- Soil samples analyzed did not detect total petroleum hydrocarbons in the gasoline range (TPHg) nor VOCs above laboratory reporting limits.

5.3 Groundwater

Table 2 presents a summary of the groundwater sample analytical results, and laboratory analytical documentation is provided in Appendix C. To provide context to the data, analytical results were compared to the February 2016 Tier 1 ESLs. The results can be summarized as follows:

- TPHg was detected at a concentration of 300 micrograms per liter (µg/L) in the sample collected from boring SB-2. The Tier 1 ESL for TPHg is 100 µg/L.
- TPHd was detected at concentrations of 220 µg/L and 120 µg/L in borings SB-2 and SB-3, respectively. The Tier 1 ESL for TPHd is 100 µg/L.
- TPHmo was detected in samples collected from all three borings, at concentrations ranging from 710 µg/L to 3,500 µg/L. The Tier 1 ESL for TPHmo is 50,000 µg/L.
- VOCs analyzed were not detected above laboratory reporting limits.

5.4 Soil Gas

Table 3 presents a summary of the compounds detected in soil gas samples collected and analyzed, and laboratory analytical documentation is provided in Appendix C. To provide context to the data, the analytical results were compared to the February 2016 Commercial ESLs. When ESLs were not available, the indoor air Regional Screening Levels (RSLs) prepared by the US EPA, Region 9 were used. The indoor air RSLs were converted to a soil gas concentration using an attenuation factor of 0.05 for sub-slab samples as recommended by the DTSC. The results can be summarized as follows:

- Numerous VOCs were detected in soil gas at relatively low concentrations and below their respective screening levels.
- Helium was detected at minor concentrations of 0.16% and 0.503% at sub-slab soil gas samples SS-2 and SS-3, respectively. Low concentrations detected indicate it is unlikely a leak occurred that would significantly change the soil gas concentrations detected in those samples, and therefore AEI considers that the results are valid.

6.0 SUMMARY AND CONCLUSIONS

AEI has completed a limited Phase II subsurface investigation at the Site as described above. The purpose of this investigation was to evaluate whether former USTs associated with the former gasoline station remain on-site and to assess whether gasoline service station activities have impacted the Site. As part of the investigation, a total of three soil borings (SB-1, SB-2, and SB-3) for the collection of soil and groundwater samples and three sub-slab soil gas probes (SS-, SS-2, and SS-3) for the collection of soil gas samples were installed at selected locations across the Site as shown on Figure 2. A GPR survey was also conducted at the Site.

The results from the geophysical survey indicated no apparent anomalies to signify possible USTs or related objects. However, an area of asphalt patch located on the Site parking lot suggests that an excavation could have been performed at one point, and an "unknown" finding in the area of the asphalt patch was detected by the GPR at approximately two-feet bgs. The Client

should be aware of the inherent limitations of geophysical surveying methods and that above and underground utilities and other man-made or natural features (i.e., automobiles, debris piles, tree roots, reinforced concrete, certain soil conditions, etc.), if in the area of the survey, may decrease the effectiveness of the survey. The Client should be aware that the lack of a detection of a feature from a geophysical survey does not mean that the feature does not exist only that it was not detected.

Analytical results generated during this investigation showed the presence of petroleum hydrocarbons in soil and groundwater, and several VOCs in soil gas. Petroleum hydrocarbons detected in soil were below Tier 1 ESLs, which are the most conservative ESLs based on a scenario designed to protect properties with unrestricted land and water use, shallow soil contamination, shallow groundwater, and permeable soil. For groundwater, TPHg and TPHd were detected at concentrations slightly exceeding their respective Tier 1 ESLs (i.e., same order of magnitude). In soil gas, VOCs detected were below their respective commercial screening levels.

The presence of the detected petroleum hydrocarbon and VOCs in Site media indicates that a release associated with the former gasoline station has likely occurred. Under the guidelines presented in the *Low-Threat Underground Storage Tank Case Closure Policy* (LTCP) dated August 17, 2012, the release would likely be eligible for low threat closure considering:

- The Site is located within the service area of a public water system.
- The release consists only of petroleum and has been stopped (i.e., an on-site source does not appear to remain on-site).
- Evidence of free product was not encountered during the investigation.
- Benzene and methyl tert butyl ether (MTBE) have either not been detected above laboratory reporting limits or detected below their applicable screening levels in Site media (i.e., soil, groundwater, and soil gas) analyzed.
- Based on soil gas concentrations detected, the vapor intrusion pathway does not appear complete.

The apparent limited distribution of the compounds detected in the subsurface suggests that the release appears to have been minimal and, since an on-site source does not appear to remain on-site (i.e., former USTs), compounds detected in Site media related to the former gasoline service station operations would be expected to naturally attenuate over time. If a further degree of comfort is desired, additional subsurface investigation activities could be conducted to delineate the extent of petroleum hydrocarbon impacts in groundwater.

7.0 REFERENCES

AEI Consultants, 2017. *Phase I Environmental Site Assessment*, *4300 Broadway, Oakland, Alameda County, California 94611*. May 15.

California Regional Water Quality Control Board, San Francisco Bay Region, 2016. *Environmental Screening Levels*. February 2016, revision 3.

Department of Toxic Substances Control, et. al., 2015. *Advisory: Active Soil Gas Investigations.* July.

State Water Resources Control Board, 2012. *Low-Threat Underground Storage Tank Case Closure Policy*. August 17.

United States Environmental Protection Agency, Region 9, 2017. *Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1)*. June.

8.0 REPORT LIMITATIONS AND RELIANCE

This report presents a summary of work completed by AEI Consultants. The completed work includes observations and descriptions of Site conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide the requested information, subject to scope of work for which AEI was retained and limitations inherent in this type of work, but it cannot be assumed that they are representative of areas not sampled. This report should not be regarded as a guarantee that no further contamination beyond that which could have been detected within the scope of this investigation is present beneath the subject property. Undocumented, unauthorized releases of hazardous material, the remains of which are not readily identifiable by visual inspection and are of different chemical constituents, are difficult and often impossible to detect within the scope of a chemical specific investigation.

Any conclusions and/or recommendations are based on these analyses and observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document. These services were performed in accordance with generally accepted practices, in the environmental engineering and construction field, which existed at the time and location of the work. No other warranty, either expressed or implied, has been made.

This investigation was prepared for the sole use and benefit of 4336 Broadway LLC. All reports, both verbal and written, whether in draft or final, are for the benefit of 4336 Broadway LLC. This report has no other purpose and may not be relied upon by any other person or entity without the written consent of AEI. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with AEI granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against AEI, its officers, employees, vendors, successors or assigns. Reliance is provided in accordance with AEI's Proposal and Standard Terms & Conditions executed by 4336 Broadway LLC. The limitation of liability defined in the Terms and Conditions is the aggregate limit of AEI's liability to the client and all relying parties.

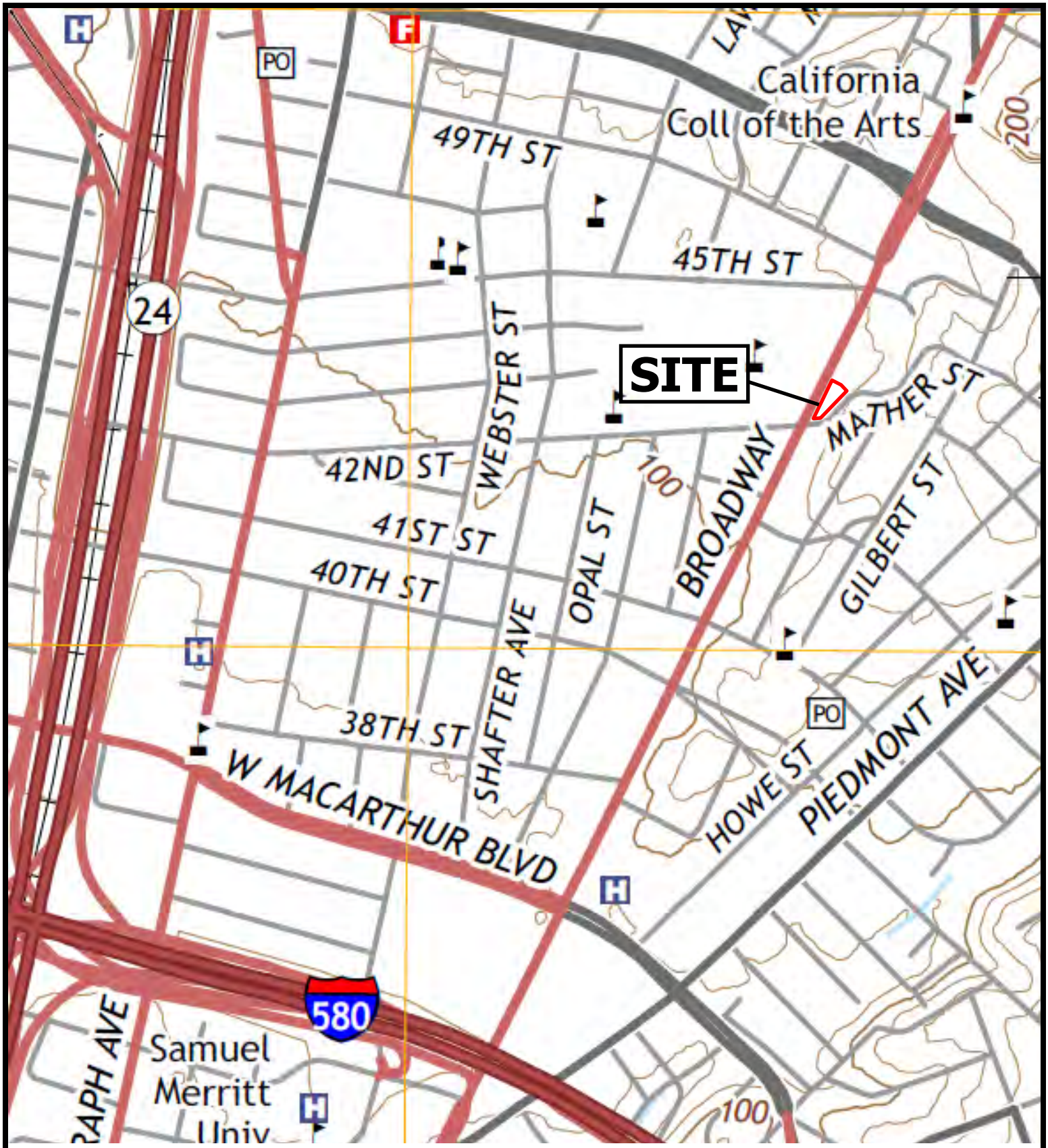
If there are any questions regarding our investigation, please do not hesitate to contact AEI at (510) 907-3145.

Sincerely,
AEI Consultants

William Banker-Hix
Staff Geologist

Veronica Statham, PE
Senior Engineer

FIGURES



Legend: Approximate Property Boundary

Source: USGS Topographic Map *Oakland West, California* (2015)

N

FIGURE 1: SITE LOCATION MAP

4300 Broadway, Oakland, California 94611
Project Number: 373403

AEI Consultants

LEGEND

- Approximate Property Boundary
- Exploratory Boring
- Sub-Slab Soil Gas Sampling Point
- Asphalt Patched Area

0 20 40
APPROXIMATE SCALE (Feet)

AEI Consultants
2500 Camino Diablo, Walnut Creek, California

SITE MAP

4300 Broadway
Oakland, California

FIGURE 2
Project No. 373403

TABLES

TABLE 1: SOIL SAMPLE DATA SUMMARY
4300 Broadway, Oakland, California

Location ID	Date	Depth (feet bgs)	TPHg (mg/kg)	TPHd (mg/kg)	TPHmo (mg/kg)	VOCs (mg/kg)
SB-1-11.5	6/23/2017	11.5	<1.0	<1.0	<5.0	<RL
SB-2-13.5	6/23/2017	13.5	<1.0	<1.0	<5.0	<RL
SB-3-11.5	6/23/2017	11.5	<1.0	27	360	<RL
		Comparison Values:				
		ESL- Tier 1	100	230	5,100	<RL

Notes:

mg/kg	milligrams per kilogram
<RL	less than the laboratory reporting limit
bgs	below ground surface
TPHg	Total Petroleum Hydrocarbons as Gasoline
TPHd	Total Petroleum Hydrocarbons as Diesel
TPHmo	Total Petroleum Hydrocarbons as Motor Oil

Comparison Values:

ESL	Tier 1 Environmental Screening Levels by the San Francisco Bay Regional Water Quality Control Board (RWQCB) and dated February 2016, based on a generic conceptual site model designed for use at most sites.

TABLE 2: GROUNDWATER SAMPLE DATA SUMMARY
4300 Broadway, Oakland, California

Location ID	Date	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	Acetone (µg/L)	2-Butanone (µg/L)	VOCs (µg/L)
SB-1	6/23/2017	<50	<100	710	34	68	<RL
SB-2	6/23/2017	300	220	3,500	1,000	1,300	<RL
SB-3	6/23/2017	<50	120	920	45	62	<RL
	Comparison Values:						
	ESL- Tier 1	100	100	50,000	1,500	5,600	<RL
	ESL - Commercial, Human Health Risk, Direct Exposure	220	150	150*	14,000	5,600	<RL

Notes:

µg/L	micrograms per liter
<RL	less than the laboratory reporting limit
TPHg	Total Petroleum Hydrocarbons as Gasoline
TPHd	Total Petroleum Hydrocarbons as Diesel
TPHmo	Total Petroleum Hydrocarbons as Motor Oil
*	ESL for TPHd. TPHmo is not soluble in water, and TPHmo detected is likely a degradate.

Comparison Values:

ESL	Environmental Screening Levels by the San Francisco Bay Regional Water Quality Control Board (RWQCB) and dated February 2016, based on a generic conceptual site model designed for use at most sites.

TABLE 3: SOIL GAS SAMPLE DATA SUMMARY
4300 Broadway, Oakland, California

Location ID	Date	Depth (feet bgs)	Benzene (µg/m^3)	Toluene (µg/m^3)	Ethylbenzene (µg/m^3)	m&p-Xylenes (µg/m^3)	o-Xylenes (µg/m^3)	PCE (µg/m^3)	Acetone (µg/m^3)	Carbon Disulfide (µg/m^3)	Chlorobenzene (µg/m^3)	Chloroform (µg/m^3)	Cyclohexane (µg/m^3)	Dichlorodifluoro-methane (µg/m^3)	Ethanol (µg/m^3)	4-Ethyltoluene (µg/m^3)	Heptane (µg/m^3)
SS-1	6/23/2017	Sub-Slab	3.71	122	18.6	23.9	5.83	6.77	373	1.50	<1.85	<1.95	17.3	<1.98	24.6	<1.96	7.62
SS-2	6/23/2017	Sub-Slab	9.01	3,290	1,110	3,410	268	<2.72	1,360	1.42	10.0	45.2	100	15.4	95.7	12.4	198
SS-3	6/23/2017	Sub-Slab	6.23	671	69.3	130	29.2	<2.72	187	<1.24	6.67	88.7	36.8	2.14	44.4	3.95	28.9
		Comparison Values: Commercial ESL - VI	420	1,300,000	4,900	440,000*	440,000*	2,100	140,000,000	62,000**	220,000	530	520,000**	8,800**	N/A	N/A	36,000**

Notes:

µg/m^3	micrograms per cubic meter
<RL	less than the laboratory reporting limit
bgs	below ground surface
N/A	not applicable
PCE	Tetrachloroethene
*	Screening level is for total xylenes
**	Where ESLs are not available, a calculated RSL is used.

Comparison Values:

RSL	Vapor Intrusion Screening Level calculated from the Regional Screening Levels by the USEPA and dated June 2017 for Commercial Air. Based on a target cancer risk (TR) of 1E-06 and target hazard quotient (THQ) of 1.0 and using attenuation factor 0.05 for sub-slab.
ESL	Environmental Screening Levels by the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) and dated February 2016. Based on the Direct Exposure Human Health Risk Levels (Table SG-1).

TABLE 3: SOIL GAS SAMPLE DATA SUMMARY (continued)
4300 Broadway, Oakland, California

Location ID	Date	Depth (feet bgs)	n-Hexane (µg/m^3)	Isopropyl-benzene (µg/m^3)	2-Butanone (µg/m^3)	4-Methyl-2-Pentanone (µg/m^3)	2-Propanol (µg/m^3)	Propene (µg/m^3)	Styrene (µg/m^3)	1,1,2,2-Tetrachloroethane (µg/m^3)	Tetra-Hydrofuran (µg/m^3)	1,1,1-Trichloroethane (µg/m^3)	1,2,4-Trimethylbenzene (µg/m^3)	1,3,5-Trimethylbenzene (µg/m^3)	1,1-Difluoroethane (µg/m^3)	Remaining VOCs (µg/m^3)	Helium (Leak Check) %
SS-1	6/23/2017	Sub-Slab	3.00	<1.97	47.0	15.6	38.8	6.87	4.64	<2.75	6.46	56.6	3.85	<1.96	6.69	<RL	<0.01%
SS-2	6/23/2017	Sub-Slab	17.4	18.0	34.3	477	339	<1.38	198	50.9	<1.18	4.44	37.3	17.8	<1.08	<RL	0.160%
SS-3	6/23/2017	Sub-Slab	3.12	6.01	32.6	102	27.3	12.10	179.0	2.75	2.30	<2.18	9.90	5.83	3.62	<RL	0.503%
		Comparison Values: Commercial ESL - VI	62,000**	36,000**	13,000,000	260,000**	17,600**	260,000**	3,900,000	1,700	176,000**	4,400,000	5,200**	5,200**	3,600,000**	Varies	N/A

Notes:

µg/m^3	micrograms per cubic meter
<RL	less than the laboratory reporting limit
bgs	below ground surface
N/A	not applicable
PCE	Tetrachloroethene
*	Screening level is for total xylenes
**	Where ESLs are not available, a calculated RSL is used.

Comparison Values:

RSL	Vapor Intrusion Screening Level calculated from the Regional Screening Levels by the USEPA and dated June 2017 for Commercial Air. Based on a target cancer risk (TR) of 1E-06 and target hazard quotient (THQ) of 1.0 and using attenuation factor 0.05 for sub-slab.
ESL	Environmental Screening Levels by the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) and dated February 2016. Based on the Direct Exposure Human Health Risk Levels (Table SG-1).

APPENDIX A

PERMIT

Alameda County Public Works Agency - Water Resources Well Permit

Public Works Agency
Alameda County

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

Application Approved on: 06/20/2017 By jamesy

Permit Numbers: W2017-0508
Permits Valid from 06/23/2017 to 06/23/2017

Application Id:	1496961801781	**City of Project Site:** Oakland
Site Location:	4300 Broadway, Oakland, CA 94611	
Project Start Date:	06/23/2017	**Completion Date:** 06/23/2017
Assigned Inspector:	Contact Marcelino Vialpando at (510) 670-5760 or Marcelino@acpwa.org	
Applicant:	AEI Consultants - Veronica Statham 520 3rd Street, Suite 209, Oakland, CA 94607	**Phone:** 510-907-3145 x2101
Property Owner:	Dominic & Barbara Devincenzi 1550 Trancas Street, Napa, CA 94558	**Phone:** --
Client:	Patrick Feely 4336 Broadway, Oakland, CA 94611	**Phone:** 510-604-7139
Contact:	William Banker-Hix	**Phone:** 925-746-6050 **Cell:** 805-674-7835

	Total Due:	$265.00
Receipt Number: WR2017-0282	**Total Amount Paid:**	$265.00
Payer Name : Veronica T Statham	Paid By: MC	**PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Investigation-Contamination Study - 3 Boreholes
Driller: Environmental Control Associates, Inc. - Lic #: 695970 - Method: DP **Work Total: $265.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2017-0508	06/20/2017	09/21/2017	3	2.25 in.	15.00 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. No work shall begin until all the permits and requirements have been approved or obtained.

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. NOTE:
Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.

9. 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.

APPENDIX B

GEOPHYSICAL REPORT

GROUND PENETRATING RADAR SYSTEMS, INC.

EXPERTS IN GPR

June 29, 2017

AEI Consultants
Attn: Veronica Statham
Site: 4300 Broadway, Oakland, CA

Re: GPR Investigation to scan for utilities and possible UST locations

Purpose

The purpose of the survey was to determine whether any possible underground storage tanks (UST's) remained on the property, and also to verify utilities prior to drilling takes place.

Equipment

- **Ground Penetrating Radar (GPR), Manufacturer: GSSI, Model: SIR-3000 processing unit with 400 MHz antenna.** GPR works by sending pulses of energy into a material and recording the strength and the time require for the return of the reflected signal. Reflections are produced when the energy pulses enter into a material with different electrical conduction properties from the material it left. The strength of the reflection is determined by the contrast in conductivity between the two materials. The total depth achieved can be as much as 8' with this antenna but can vary widely depending on the dielectric properties of the materials. For more information, please visit: http://www.geophysical.com/Documentation/Brochures/GSSI-UtilityScanBrochure.pdf

- **RD7000 pipe locator, Manufacturer: Radiodetection.** The RD7000 can detect the electromagnetic fields from live power or radio frequency signals. It can also be used in conjunction with a trasmitter to connect directly to accessible, metallic pipes, risers, or tracer wires. A tone is sent through the pipe or tracer wire at a specific frequency which can then be detected by the receiver. For more information, please visit: http://www.spx.com/en/radiodetection/pd-rd7000/

- **Schonstedt GA-72cd Magnetic Locator (Magnetometer).** The magnetometer detects the magnetic field of a ferromagnetic object. It responds to the difference in the magnetic field between two sensors. It is interpreted in the field by listening to changes in frequency as emitted by a speaker on the device. For more information, please visit: http://www.schonstedt.com/products/ga-52cx/

Process

Our process begins with collecting scans with GPR across the areas in a grid pattern. Scans are typically spaced 2'-3' apart depending on the size of the targets being searched for. The GPR data is interpreted in real time and anomalies in the data are located and marked on the surface with spray paint, pin flags, etc.

The RD7100 is used to locate pipes or utilities at the soil boring locations. We first sweep all areas with the receiver to detect live power or radio frequency signals followed by connecting to any visible risers or tracer wires that may be in the area.

The magnetometer was also used to sweep the site for metallic objects.

Findings

We found that the soil allowed for GPR depth penetration of 3'-5' in most areas. Gas and electric were found where entering the site, and was marked accordingly. One "unknown" finding was found with GPR on an asphalt patch, this unknown finding was marked with pink paint. Also, the asphalt patch looks to have been excavated at one point, based on GPR data seen while scanning this area.

Limitations

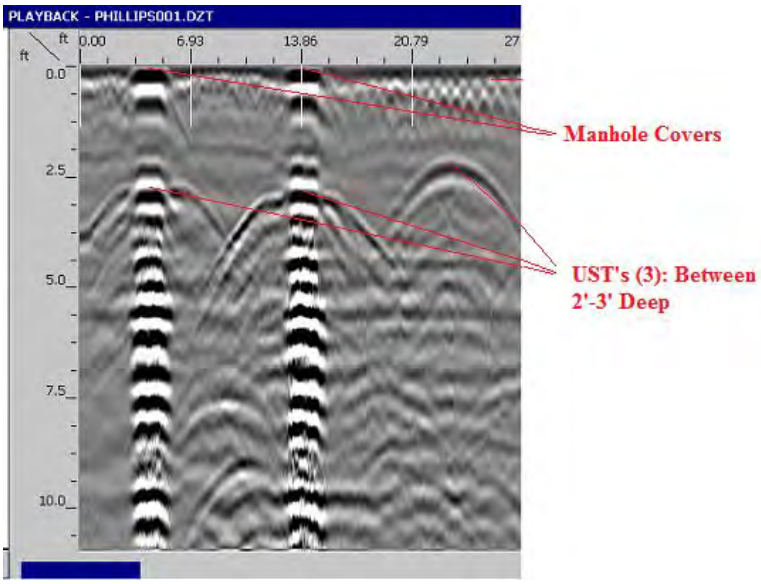
Please keep in mind that there are limitations to any subsurface investigation. The equipment may not achieve maximum effectiveness due to soil conditions, above ground obstructions, reinforced concrete, and a variety of other factors. No subsurface investigation or equipment can provide a complete image of what lies below. Our results should always be used in conjunction with as many methods as possible including consulting existing plans and drawings, exploratory excavation or potholing, visual inspection of above ground features, and utilization of services such as Dig Alert/Underground Service Alert.

.

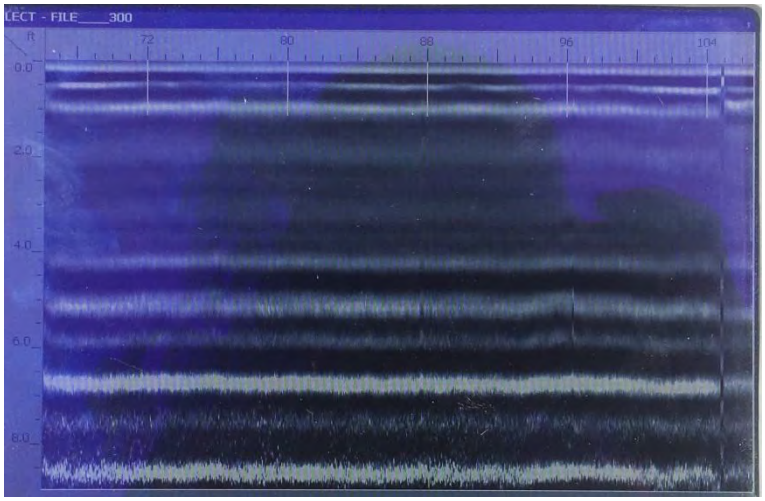
The following pages will further explain the findings.

Signed,

Greg Milburn
Project Manager
GPRS, Inc.
Direct: 925-332-647
Fax: 419-843-5829
Greg.milburn@gp-radar.com
www.gp-radar.com



The image to the left shows example GPR data from a DIFFERENT site, where possible tank anomalies were seen in the GPR data while scanning.



The image to the left shows "real time" GPR data while scanning on site. No apparent anomalies were seen in the GPR data to signify any possible UST's or other related objects.

The photo to the left shows the "unknown" finding that was marked on the asphalt patch on site. This unknown finding was approximately 2' in depth.

APPENDIX C

BORING LOGS

BORING NUMBER SB-1

AEI Consultants

Environmental & Engineering Services

CLIENT 4336 Broadway LLC **PROJECT NAME** 4300 Broadway

PROJECT NUMBER 373403 **PROJECT LOCATION** 4300 Broadway, Oakland, CA

DATE STARTED 6/23/17 **COMPLETED** 6/23/17 **GROUND ELEVATION** _____ **HOLE SIZE** 2.25 inches

DRILLING CONTRACTOR Environmental Control Associates, Inc. **GROUND WATER LEVELS:**

DRILLING METHOD Direct Push ▽ **AT TIME OF DRILLING** 12.00 ft

LOGGED BY WBH **CHECKED BY** Veronica Statham ▼ **AT END OF DRILLING** 10.00 ft

NOTES _____ **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					0.5 ASPHALT	
	SB-1-0.5				SILTY CLAY (CL), from 0.5 to 4.5 feet black (2/1 10YR), from 4.5 to 8 feet dark brown (3/3 10YR), stiff, moist, some fine sand, trace coarse sand, reddish streaks, sand content increases with depth	
	SB-1-1.5		0.0			
	SB-1-3.5		0.7			
5						
	SB-1-5.5		0.0			
	SB-1-7.5		0.0		8.0	
					SANDY CLAY (CL), brown (4/3 10YR), stiff, moist from 8 to 12 feet, wet from 12 to 16 feet, fine to medium grained sand, non-plastic, trace coarse sand, well graded	
10	SB-1-9.5		0.7		▼	
	SB-1-11.5		0.1		▽	
15					16.0	

Bottom of borehole at 16.0 feet.

BORING NUMBER SB-2

AEI Consultants

Environmental & Engineering Services

CLIENT 4336 Broadway LLC
PROJECT NAME 4300 Broadway
PROJECT NUMBER 373403
PROJECT LOCATION 4300 Broadway, Oakland, CA
DATE STARTED 6/23/17 **COMPLETED** 6/23/17
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR Environmental Control Associates, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY WBH **CHECKED BY** Veronica Statham
AT END OF DRILLING 15.60 ft
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					0.5 ASPHALT	
	SB-2-1.5		0.3		SILTY CLAY (CL), black (2/1 10YR), stiff, moist, with some fine grained sand, non plastic	
	SB-2-3.5		0.7		4.5	
5	SB-2-5.5		0.7		SANDY CLAY (CL), brown (4/3 10YR) to 12 feet, dark greyish brown (4/2 10YR) from 12 to 16 feet, stiff to 12 feet, soft from 12 to 16, fine to coarse sand, moist, non plastic clay, some red and yellowish streaks.	
	SB-2-7.5		0.6			
10	SB-2-9.5		1.9			
	SB-2-11.5		0.4			
	SB-2-13.5		0.2			
15	SB-2-15.5		0.4		16.0	

Bottom of borehole at 16.0 feet.

BORING NUMBER SB-3

AEI Consultants

Environmental & Engineering Services

CLIENT 4336 Broadway LLC **PROJECT NAME** 4300 Broadway

PROJECT NUMBER 373403 **PROJECT LOCATION** 4300 Broadway, Oakland, CA

DATE STARTED 6/23/17 **COMPLETED** 6/23/17 **GROUND ELEVATION** _____ **HOLE SIZE** 2.25 inches

DRILLING CONTRACTOR Environmental Control Associates, Inc. **GROUND WATER LEVELS:**

DRILLING METHOD Direct Push **AT TIME OF DRILLING** 12.00 ft

LOGGED BY WBH **CHECKED BY** Veronica Statham **AT END OF DRILLING** 9.61 ft

NOTES _____ **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					0.5 ASPHALT	
	SB-3-1.5		1.4		SILTY CLAY (CL), very dark greyish brown (3/2 10YR), stiff, moist, non-plastic clay with some fine to medium grained sand	
	SB-3-3.5		0.0		4.0	
5					SANDY CLAY (CL), dark brown (3/3 10YR), stiff, moist, fine to coarse sand, non-plastic clay	
	SB-3-5.5		0.4			
	SB-3-7.5		0.3		8.0	
					SILTY CLAY (CL), black (2/1 10YR), stiff, moist to very moist, with some medium grained sand, from 12 to 13 feet green streaking and color transitions to dark brown	
10	SB-3-9.5		0.3			
	SB-3-11.5		0.0		13.0	
					SANDY CLAY (CL), dark brown (3/3 10YR), stiff, moist, fine to coarse sand, non-plastic clay	
15					16.0	

Bottom of borehole at 16.0 feet.

APPENDIX D

LABORATORY ANALYTICAL REPORTS

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1706B91 **Amended:** 06/29/2017

Report Created for: AEI Consultants

2500 Camino Diablo, Ste.#200
Walnut Creek, CA 94597

Project Contact: William Hicks
Project P.O.: 135583
Project Name: 373403; 4300 Broadway St., Oakland

Project Received: 06/23/2017

Analytical Report reviewed & approved for release on 06/27/2017 by:

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.

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CA ELAP 1644 ♦ NELAP 4033ORELAP

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: AEI Consultants
Project: 373403; 4300 Broadway St., Oakland
WorkOrder: 1706B91

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

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Glossary of Terms & Qualifier Definitions

Client: AEI Consultants
Project: 373403; 4300 Broadway St., Oakland
WorkOrder: 1706B91

Analytical Qualifiers

a3	Sample diluted due to high organic content.
b1	Aqueous sample that contains greater than ~1 vol. % sediment
d6	One to a few isolated non-target peaks present in the TPH(g) chromatogram
e2	Diesel range compounds are significant; no recognizable pattern
e7	Oil range compounds are significant

Quality Control Qualifiers

F2	LCS/LCSD recovery and/or RPD is out of acceptance criteria.

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17	**Analytical Method:**	SW8260B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1-11.5	1706B91-007A	Soil	06/23/2017 09:01	GC10	140920

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	06/23/2017 23:01
tert-Amyl methyl ether (TAME)	ND	0.0050	1	06/23/2017 23:01
Benzene	ND	0.0050	1	06/23/2017 23:01
Bromobenzene	ND	0.0050	1	06/23/2017 23:01
Bromochloromethane	ND	0.0050	1	06/23/2017 23:01
Bromodichloromethane	ND	0.0050	1	06/23/2017 23:01
Bromoform	ND	0.0050	1	06/23/2017 23:01
Bromomethane	ND	0.0050	1	06/23/2017 23:01
2-Butanone (MEK)	ND	0.020	1	06/23/2017 23:01
t-Butyl alcohol (TBA)	ND	0.050	1	06/23/2017 23:01
n-Butyl benzene	ND	0.0050	1	06/23/2017 23:01
sec-Butyl benzene	ND	0.0050	1	06/23/2017 23:01
tert-Butyl benzene	ND	0.0050	1	06/23/2017 23:01
Carbon Disulfide	ND	0.0050	1	06/23/2017 23:01
Carbon Tetrachloride	ND	0.0050	1	06/23/2017 23:01
Chlorobenzene	ND	0.0050	1	06/23/2017 23:01
Chloroethane	ND	0.0050	1	06/23/2017 23:01
Chloroform	ND	0.0050	1	06/23/2017 23:01
Chloromethane	ND	0.0050	1	06/23/2017 23:01
2-Chlorotoluene	ND	0.0050	1	06/23/2017 23:01
4-Chlorotoluene	ND	0.0050	1	06/23/2017 23:01
Dibromochloromethane	ND	0.0050	1	06/23/2017 23:01
1,2-Dibromo-3-chloropropane	ND	0.0040	1	06/23/2017 23:01
1,2-Dibromoethane (EDB)	ND	0.0040	1	06/23/2017 23:01
Dibromomethane	ND	0.0050	1	06/23/2017 23:01
1,2-Dichlorobenzene	ND	0.0050	1	06/23/2017 23:01
1,3-Dichlorobenzene	ND	0.0050	1	06/23/2017 23:01
1,4-Dichlorobenzene	ND	0.0050	1	06/23/2017 23:01
Dichlorodifluoromethane	ND	0.0050	1	06/23/2017 23:01
1,1-Dichloroethane	ND	0.0050	1	06/23/2017 23:01
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	06/23/2017 23:01
1,1-Dichloroethene	ND	0.0050	1	06/23/2017 23:01
cis-1,2-Dichloroethene	ND	0.0050	1	06/23/2017 23:01
trans-1,2-Dichloroethene	ND	0.0050	1	06/23/2017 23:01
1,2-Dichloropropane	ND	0.0050	1	06/23/2017 23:01
1,3-Dichloropropane	ND	0.0050	1	06/23/2017 23:01
2,2-Dichloropropane	ND	0.0050	1	06/23/2017 23:01

(Cont.)

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17	**Analytical Method:**	SW8260B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1-11.5	1706B91-007A	Soil	06/23/2017 09:01	GC10	140920

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	06/23/2017 23:01
cis-1,3-Dichloropropene	ND	0.0050	1	06/23/2017 23:01
trans-1,3-Dichloropropene	ND	0.0050	1	06/23/2017 23:01
Diisopropyl ether (DIPE)	ND	0.0050	1	06/23/2017 23:01
Ethylbenzene	ND	0.0050	1	06/23/2017 23:01
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	06/23/2017 23:01
Freon 113	ND	0.0050	1	06/23/2017 23:01
Hexachlorobutadiene	ND	0.0050	1	06/23/2017 23:01
Hexachloroethane	ND	0.0050	1	06/23/2017 23:01
2-Hexanone	ND	0.0050	1	06/23/2017 23:01
Isopropylbenzene	ND	0.0050	1	06/23/2017 23:01
4-Isopropyl toluene	ND	0.0050	1	06/23/2017 23:01
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	06/23/2017 23:01
Methylene chloride	ND	0.0050	1	06/23/2017 23:01
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	06/23/2017 23:01
Naphthalene	ND	0.0050	1	06/23/2017 23:01
n-Propyl benzene	ND	0.0050	1	06/23/2017 23:01
Styrene	ND	0.0050	1	06/23/2017 23:01
1,1,1,2-Tetrachloroethane	ND	0.0050	1	06/23/2017 23:01
1,1,2,2-Tetrachloroethane	ND	0.0050	1	06/23/2017 23:01
Tetrachloroethene	ND	0.0050	1	06/23/2017 23:01
Toluene	ND	0.0050	1	06/23/2017 23:01
1,2,3-Trichlorobenzene	ND	0.0050	1	06/23/2017 23:01
1,2,4-Trichlorobenzene	ND	0.0050	1	06/23/2017 23:01
1,1,1-Trichloroethane	ND	0.0050	1	06/23/2017 23:01
1,1,2-Trichloroethane	ND	0.0050	1	06/23/2017 23:01
Trichloroethene	ND	0.0050	1	06/23/2017 23:01
Trichlorofluoromethane	ND	0.0050	1	06/23/2017 23:01
1,2,3-Trichloropropane	ND	0.0050	1	06/23/2017 23:01
1,2,4-Trimethylbenzene	ND	0.0050	1	06/23/2017 23:01
1,3,5-Trimethylbenzene	ND	0.0050	1	06/23/2017 23:01
Vinyl Chloride	ND	0.0050	1	06/23/2017 23:01
Xylenes, Total	ND	0.0050	1	06/23/2017 23:01

(Cont.)

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17	**Analytical Method:**	SW8260B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1-11.5	**1706B91-007A**	**Soil**	**06/23/2017 09:01**	**GC10**	**140920**

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	114	70-130		06/23/2017 23:01
Toluene-d8	125	70-130		06/23/2017 23:01
4-BFB	98	70-130		06/23/2017 23:01
Benzene-d6	108	60-140		06/23/2017 23:01
Ethylbenzene-d10	128	60-140		06/23/2017 23:01
1,2-DCB-d4	86	60-140		06/23/2017 23:01

Analyst(s): KF

(Cont.)

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17	**Analytical Method:**	SW8260B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2-13.5	1706B91-014A	Soil	06/23/2017 09:54	GC10	140920

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	06/23/2017 23:40
tert-Amyl methyl ether (TAME)	ND	0.0050	1	06/23/2017 23:40
Benzene	ND	0.0050	1	06/23/2017 23:40
Bromobenzene	ND	0.0050	1	06/23/2017 23:40
Bromochloromethane	ND	0.0050	1	06/23/2017 23:40
Bromodichloromethane	ND	0.0050	1	06/23/2017 23:40
Bromoform	ND	0.0050	1	06/23/2017 23:40
Bromomethane	ND	0.0050	1	06/23/2017 23:40
2-Butanone (MEK)	ND	0.020	1	06/23/2017 23:40
t-Butyl alcohol (TBA)	ND	0.050	1	06/23/2017 23:40
n-Butyl benzene	ND	0.0050	1	06/23/2017 23:40
sec-Butyl benzene	ND	0.0050	1	06/23/2017 23:40
tert-Butyl benzene	ND	0.0050	1	06/23/2017 23:40
Carbon Disulfide	ND	0.0050	1	06/23/2017 23:40
Carbon Tetrachloride	ND	0.0050	1	06/23/2017 23:40
Chlorobenzene	ND	0.0050	1	06/23/2017 23:40
Chloroethane	ND	0.0050	1	06/23/2017 23:40
Chloroform	ND	0.0050	1	06/23/2017 23:40
Chloromethane	ND	0.0050	1	06/23/2017 23:40
2-Chlorotoluene	ND	0.0050	1	06/23/2017 23:40
4-Chlorotoluene	ND	0.0050	1	06/23/2017 23:40
Dibromochloromethane	ND	0.0050	1	06/23/2017 23:40
1,2-Dibromo-3-chloropropane	ND	0.0040	1	06/23/2017 23:40
1,2-Dibromoethane (EDB)	ND	0.0040	1	06/23/2017 23:40
Dibromomethane	ND	0.0050	1	06/23/2017 23:40
1,2-Dichlorobenzene	ND	0.0050	1	06/23/2017 23:40
1,3-Dichlorobenzene	ND	0.0050	1	06/23/2017 23:40
1,4-Dichlorobenzene	ND	0.0050	1	06/23/2017 23:40
Dichlorodifluoromethane	ND	0.0050	1	06/23/2017 23:40
1,1-Dichloroethane	ND	0.0050	1	06/23/2017 23:40
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	06/23/2017 23:40
1,1-Dichloroethene	ND	0.0050	1	06/23/2017 23:40
cis-1,2-Dichloroethene	ND	0.0050	1	06/23/2017 23:40
trans-1,2-Dichloroethene	ND	0.0050	1	06/23/2017 23:40
1,2-Dichloropropane	ND	0.0050	1	06/23/2017 23:40
1,3-Dichloropropane	ND	0.0050	1	06/23/2017 23:40
2,2-Dichloropropane	ND	0.0050	1	06/23/2017 23:40

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17	**Analytical Method:**	SW8260B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2-13.5	1706B91-014A	Soil	06/23/2017 09:54	GC10	140920

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	06/23/2017 23:40
cis-1,3-Dichloropropene	ND	0.0050	1	06/23/2017 23:40
trans-1,3-Dichloropropene	ND	0.0050	1	06/23/2017 23:40
Diisopropyl ether (DIPE)	ND	0.0050	1	06/23/2017 23:40
Ethylbenzene	ND	0.0050	1	06/23/2017 23:40
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	06/23/2017 23:40
Freon 113	ND	0.0050	1	06/23/2017 23:40
Hexachlorobutadiene	ND	0.0050	1	06/23/2017 23:40
Hexachloroethane	ND	0.0050	1	06/23/2017 23:40
2-Hexanone	ND	0.0050	1	06/23/2017 23:40
Isopropylbenzene	ND	0.0050	1	06/23/2017 23:40
4-Isopropyl toluene	ND	0.0050	1	06/23/2017 23:40
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	06/23/2017 23:40
Methylene chloride	ND	0.0050	1	06/23/2017 23:40
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	06/23/2017 23:40
Naphthalene	ND	0.0050	1	06/23/2017 23:40
n-Propyl benzene	ND	0.0050	1	06/23/2017 23:40
Styrene	ND	0.0050	1	06/23/2017 23:40
1,1,1,2-Tetrachloroethane	ND	0.0050	1	06/23/2017 23:40
1,1,2,2-Tetrachloroethane	ND	0.0050	1	06/23/2017 23:40
Tetrachloroethene	ND	0.0050	1	06/23/2017 23:40
Toluene	ND	0.0050	1	06/23/2017 23:40
1,2,3-Trichlorobenzene	ND	0.0050	1	06/23/2017 23:40
1,2,4-Trichlorobenzene	ND	0.0050	1	06/23/2017 23:40
1,1,1-Trichloroethane	ND	0.0050	1	06/23/2017 23:40
1,1,2-Trichloroethane	ND	0.0050	1	06/23/2017 23:40
Trichloroethene	ND	0.0050	1	06/23/2017 23:40
Trichlorofluoromethane	ND	0.0050	1	06/23/2017 23:40
1,2,3-Trichloropropane	ND	0.0050	1	06/23/2017 23:40
1,2,4-Trimethylbenzene	ND	0.0050	1	06/23/2017 23:40
1,3,5-Trimethylbenzene	ND	0.0050	1	06/23/2017 23:40
Vinyl Chloride	ND	0.0050	1	06/23/2017 23:40
Xylenes, Total	ND	0.0050	1	06/23/2017 23:40

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17	**Analytical Method:**	SW8260B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2-13.5	1706B91-014A	Soil	06/23/2017 09:54	GC10	140920

Analytes	Result	RL	DF	Date Analyzed
Surrogates	**REC (%)**	**Limits**		
Dibromofluoromethane	114	70-130		06/23/2017 23:40
Toluene-d8	127	70-130		06/23/2017 23:40
4-BFB	97	70-130		06/23/2017 23:40
Benzene-d6	108	60-140		06/23/2017 23:40
Ethylbenzene-d10	132	60-140		06/23/2017 23:40
1,2-DCB-d4	91	60-140		06/23/2017 23:40

Analyst(s): KF

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17	**Analytical Method:**	SW8260B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3-11.5	1706B91-024A	Soil	06/23/2017 11:05	GC10	140920

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	06/24/2017 14:17
tert-Amyl methyl ether (TAME)	ND	0.0050	1	06/24/2017 14:17
Benzene	ND	0.0050	1	06/24/2017 14:17
Bromobenzene	ND	0.0050	1	06/24/2017 14:17
Bromochloromethane	ND	0.0050	1	06/24/2017 14:17
Bromodichloromethane	ND	0.0050	1	06/24/2017 14:17
Bromoform	ND	0.0050	1	06/24/2017 14:17
Bromomethane	ND	0.0050	1	06/24/2017 14:17
2-Butanone (MEK)	ND	0.020	1	06/24/2017 14:17
t-Butyl alcohol (TBA)	ND	0.050	1	06/24/2017 14:17
n-Butyl benzene	ND	0.0050	1	06/24/2017 14:17
sec-Butyl benzene	ND	0.0050	1	06/24/2017 14:17
tert-Butyl benzene	ND	0.0050	1	06/24/2017 14:17
Carbon Disulfide	ND	0.0050	1	06/24/2017 14:17
Carbon Tetrachloride	ND	0.0050	1	06/24/2017 14:17
Chlorobenzene	ND	0.0050	1	06/24/2017 14:17
Chloroethane	ND	0.0050	1	06/24/2017 14:17
Chloroform	ND	0.0050	1	06/24/2017 14:17
Chloromethane	ND	0.0050	1	06/24/2017 14:17
2-Chlorotoluene	ND	0.0050	1	06/24/2017 14:17
4-Chlorotoluene	ND	0.0050	1	06/24/2017 14:17
Dibromochloromethane	ND	0.0050	1	06/24/2017 14:17
1,2-Dibromo-3-chloropropane	ND	0.0040	1	06/24/2017 14:17
1,2-Dibromoethane (EDB)	ND	0.0040	1	06/24/2017 14:17
Dibromomethane	ND	0.0050	1	06/24/2017 14:17
1,2-Dichlorobenzene	ND	0.0050	1	06/24/2017 14:17
1,3-Dichlorobenzene	ND	0.0050	1	06/24/2017 14:17
1,4-Dichlorobenzene	ND	0.0050	1	06/24/2017 14:17
Dichlorodifluoromethane	ND	0.0050	1	06/24/2017 14:17
1,1-Dichloroethane	ND	0.0050	1	06/24/2017 14:17
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	06/24/2017 14:17
1,1-Dichloroethene	ND	0.0050	1	06/24/2017 14:17
cis-1,2-Dichloroethene	ND	0.0050	1	06/24/2017 14:17
trans-1,2-Dichloroethene	ND	0.0050	1	06/24/2017 14:17
1,2-Dichloropropane	ND	0.0050	1	06/24/2017 14:17
1,3-Dichloropropane	ND	0.0050	1	06/24/2017 14:17
2,2-Dichloropropane	ND	0.0050	1	06/24/2017 14:17

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17	**Analytical Method:**	SW8260B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3-11.5	1706B91-024A	Soil	06/23/2017 11:05	GC10	140920

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	06/24/2017 14:17
cis-1,3-Dichloropropene	ND	0.0050	1	06/24/2017 14:17
trans-1,3-Dichloropropene	ND	0.0050	1	06/24/2017 14:17
Diisopropyl ether (DIPE)	ND	0.0050	1	06/24/2017 14:17
Ethylbenzene	ND	0.0050	1	06/24/2017 14:17
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	06/24/2017 14:17
Freon 113	ND	0.0050	1	06/24/2017 14:17
Hexachlorobutadiene	ND	0.0050	1	06/24/2017 14:17
Hexachloroethane	ND	0.0050	1	06/24/2017 14:17
2-Hexanone	ND	0.0050	1	06/24/2017 14:17
Isopropylbenzene	ND	0.0050	1	06/24/2017 14:17
4-Isopropyl toluene	ND	0.0050	1	06/24/2017 14:17
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	06/24/2017 14:17
Methylene chloride	ND	0.0050	1	06/24/2017 14:17
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	06/24/2017 14:17
Naphthalene	ND	0.0050	1	06/24/2017 14:17
n-Propyl benzene	ND	0.0050	1	06/24/2017 14:17
Styrene	ND	0.0050	1	06/24/2017 14:17
1,1,1,2-Tetrachloroethane	ND	0.0050	1	06/24/2017 14:17
1,1,2,2-Tetrachloroethane	ND	0.0050	1	06/24/2017 14:17
Tetrachloroethene	ND	0.0050	1	06/24/2017 14:17
Toluene	ND	0.0050	1	06/24/2017 14:17
1,2,3-Trichlorobenzene	ND	0.0050	1	06/24/2017 14:17
1,2,4-Trichlorobenzene	ND	0.0050	1	06/24/2017 14:17
1,1,1-Trichloroethane	ND	0.0050	1	06/24/2017 14:17
1,1,2-Trichloroethane	ND	0.0050	1	06/24/2017 14:17
Trichloroethene	ND	0.0050	1	06/24/2017 14:17
Trichlorofluoromethane	ND	0.0050	1	06/24/2017 14:17
1,2,3-Trichloropropane	ND	0.0050	1	06/24/2017 14:17
1,2,4-Trimethylbenzene	ND	0.0050	1	06/24/2017 14:17
1,3,5-Trimethylbenzene	ND	0.0050	1	06/24/2017 14:17
Vinyl Chloride	ND	0.0050	1	06/24/2017 14:17
Xylenes, Total	ND	0.0050	1	06/24/2017 14:17

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17	**Analytical Method:**	SW8260B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3-11.5	1706B91-024A	Soil	06/23/2017 11:05	GC10	140920

Analytes	Result	RL	DF	Date Analyzed
Surrogates	**REC (%)**	**Limits**		
Dibromofluoromethane	115	70-130		06/24/2017 14:17
Toluene-d8	126	70-130		06/24/2017 14:17
4-BFB	100	70-130		06/24/2017 14:17
Benzene-d6	101	60-140		06/24/2017 14:17
Ethylbenzene-d10	117	60-140		06/24/2017 14:17
1,2-DCB-d4	79	60-140		06/24/2017 14:17

Analyst(s): KF

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17-6/24/17	**Analytical Method:**	SW8260B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1	1706B91-021A	Water	06/23/2017 10:20	GC16	141009

Analytes	Result	RL	DF	Date Analyzed
Acetone	**34**	10	1	06/23/2017 22:42
tert-Amyl methyl ether (TAME)	ND	0.50	1	06/23/2017 22:42
Benzene	ND	0.50	1	06/23/2017 22:42
Bromobenzene	ND	0.50	1	06/23/2017 22:42
Bromochloromethane	ND	0.50	1	06/23/2017 22:42
Bromodichloromethane	ND	0.50	1	06/23/2017 22:42
Bromoform	ND	0.50	1	06/23/2017 22:42
Bromomethane	ND	0.50	1	06/23/2017 22:42
2-Butanone (MEK)	**68**	2.0	1	06/23/2017 22:42
t-Butyl alcohol (TBA)	ND	2.0	1	06/23/2017 22:42
n-Butyl benzene	ND	0.50	1	06/23/2017 22:42
sec-Butyl benzene	ND	0.50	1	06/23/2017 22:42
tert-Butyl benzene	ND	0.50	1	06/23/2017 22:42
Carbon Disulfide	ND	0.50	1	06/23/2017 22:42
Carbon Tetrachloride	ND	0.50	1	06/23/2017 22:42
Chlorobenzene	ND	0.50	1	06/23/2017 22:42
Chloroethane	ND	0.50	1	06/23/2017 22:42
Chloroform	ND	0.50	1	06/23/2017 22:42
Chloromethane	ND	0.50	1	06/23/2017 22:42
2-Chlorotoluene	ND	0.50	1	06/23/2017 22:42
4-Chlorotoluene	ND	0.50	1	06/23/2017 22:42
Dibromochloromethane	ND	0.50	1	06/23/2017 22:42
1,2-Dibromo-3-chloropropane	ND	0.20	1	06/23/2017 22:42
1,2-Dibromoethane (EDB)	ND	0.50	1	06/23/2017 22:42
Dibromomethane	ND	0.50	1	06/23/2017 22:42
1,2-Dichlorobenzene	ND	0.50	1	06/23/2017 22:42
1,3-Dichlorobenzene	ND	0.50	1	06/23/2017 22:42
1,4-Dichlorobenzene	ND	0.50	1	06/23/2017 22:42
Dichlorodifluoromethane	ND	0.50	1	06/23/2017 22:42
1,1-Dichloroethane	ND	0.50	1	06/23/2017 22:42
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	06/23/2017 22:42
1,1-Dichloroethene	ND	0.50	1	06/23/2017 22:42
cis-1,2-Dichloroethene	ND	0.50	1	06/23/2017 22:42
trans-1,2-Dichloroethene	ND	0.50	1	06/23/2017 22:42
1,2-Dichloropropane	ND	0.50	1	06/23/2017 22:42
1,3-Dichloropropane	ND	0.50	1	06/23/2017 22:42
2,2-Dichloropropane	ND	0.50	1	06/23/2017 22:42

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17-6/24/17	**Analytical Method:**	SW8260B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1	1706B91-021A	Water	06/23/2017 10:20	GC16	141009

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	06/23/2017 22:42
cis-1,3-Dichloropropene	ND	0.50	1	06/23/2017 22:42
trans-1,3-Dichloropropene	ND	0.50	1	06/23/2017 22:42
Diisopropyl ether (DIPE)	ND	0.50	1	06/23/2017 22:42
Ethylbenzene	ND	0.50	1	06/23/2017 22:42
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	06/23/2017 22:42
Freon 113	ND	0.50	1	06/23/2017 22:42
Hexachlorobutadiene	ND	0.50	1	06/23/2017 22:42
Hexachloroethane	ND	0.50	1	06/23/2017 22:42
2-Hexanone	ND	0.50	1	06/23/2017 22:42
Isopropylbenzene	ND	0.50	1	06/23/2017 22:42
4-Isopropyl toluene	ND	0.50	1	06/23/2017 22:42
Methyl-t-butyl ether (MTBE)	ND	0.50	1	06/23/2017 22:42
Methylene chloride	ND	0.50	1	06/23/2017 22:42
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	06/23/2017 22:42
Naphthalene	ND	0.50	1	06/23/2017 22:42
n-Propyl benzene	ND	0.50	1	06/23/2017 22:42
Styrene	ND	0.50	1	06/23/2017 22:42
1,1,1,2-Tetrachloroethane	ND	0.50	1	06/23/2017 22:42
1,1,2,2-Tetrachloroethane	ND	0.50	1	06/23/2017 22:42
Tetrachloroethene	ND	0.50	1	06/23/2017 22:42
Toluene	ND	0.50	1	06/23/2017 22:42
1,2,3-Trichlorobenzene	ND	0.50	1	06/23/2017 22:42
1,2,4-Trichlorobenzene	ND	0.50	1	06/23/2017 22:42
1,1,1-Trichloroethane	ND	0.50	1	06/23/2017 22:42
1,1,2-Trichloroethane	ND	0.50	1	06/23/2017 22:42
Trichloroethene	ND	0.50	1	06/23/2017 22:42
Trichlorofluoromethane	ND	0.50	1	06/23/2017 22:42
1,2,3-Trichloropropane	ND	0.50	1	06/23/2017 22:42
1,2,4-Trimethylbenzene	ND	0.50	1	06/23/2017 22:42
1,3,5-Trimethylbenzene	ND	0.50	1	06/23/2017 22:42
Vinyl Chloride	ND	0.50	1	06/23/2017 22:42
Xylenes, Total	ND	0.50	1	06/23/2017 22:42

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17-6/24/17	**Analytical Method:**	SW8260B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1	1706B91-021A	Water	06/23/2017 10:20	GC16	141009

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	112	70-130		06/23/2017 22:42
Toluene-d8	100	70-130		06/23/2017 22:42
4-BFB	103	70-130		06/23/2017 22:42

Analyst(s): KF Analytical Comments: b1

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17-6/24/17	**Analytical Method:**	SW8260B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2	1706B91-022A	Water	06/23/2017 10:43	GC16	141009

Analytes	Result	RL	DF	Date Analyzed
Acetone	**1000**	100	10	06/24/2017 21:46
tert-Amyl methyl ether (TAME)	ND	5.0	10	06/24/2017 21:46
Benzene	ND	5.0	10	06/24/2017 21:46
Bromobenzene	ND	5.0	10	06/24/2017 21:46
Bromochloromethane	ND	5.0	10	06/24/2017 21:46
Bromodichloromethane	ND	5.0	10	06/24/2017 21:46
Bromoform	ND	5.0	10	06/24/2017 21:46
Bromomethane	ND	5.0	10	06/24/2017 21:46
2-Butanone (MEK)	**1300**	20	10	06/24/2017 21:46
t-Butyl alcohol (TBA)	ND	20	10	06/24/2017 21:46
n-Butyl benzene	ND	5.0	10	06/24/2017 21:46
sec-Butyl benzene	ND	5.0	10	06/24/2017 21:46
tert-Butyl benzene	ND	5.0	10	06/24/2017 21:46
Carbon Disulfide	ND	5.0	10	06/24/2017 21:46
Carbon Tetrachloride	ND	5.0	10	06/24/2017 21:46
Chlorobenzene	ND	5.0	10	06/24/2017 21:46
Chloroethane	ND	5.0	10	06/24/2017 21:46
Chloroform	ND	5.0	10	06/24/2017 21:46
Chloromethane	ND	5.0	10	06/24/2017 21:46
2-Chlorotoluene	ND	5.0	10	06/24/2017 21:46
4-Chlorotoluene	ND	5.0	10	06/24/2017 21:46
Dibromochloromethane	ND	5.0	10	06/24/2017 21:46
1,2-Dibromo-3-chloropropane	ND	2.0	10	06/24/2017 21:46
1,2-Dibromoethane (EDB)	ND	5.0	10	06/24/2017 21:46
Dibromomethane	ND	5.0	10	06/24/2017 21:46
1,2-Dichlorobenzene	ND	5.0	10	06/24/2017 21:46
1,3-Dichlorobenzene	ND	5.0	10	06/24/2017 21:46
1,4-Dichlorobenzene	ND	5.0	10	06/24/2017 21:46
Dichlorodifluoromethane	ND	5.0	10	06/24/2017 21:46
1,1-Dichloroethane	ND	5.0	10	06/24/2017 21:46
1,2-Dichloroethane (1,2-DCA)	ND	5.0	10	06/24/2017 21:46
1,1-Dichloroethene	ND	5.0	10	06/24/2017 21:46
cis-1,2-Dichloroethene	ND	5.0	10	06/24/2017 21:46
trans-1,2-Dichloroethene	ND	5.0	10	06/24/2017 21:46
1,2-Dichloropropane	ND	5.0	10	06/24/2017 21:46
1,3-Dichloropropane	ND	5.0	10	06/24/2017 21:46
2,2-Dichloropropane	ND	5.0	10	06/24/2017 21:46

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17-6/24/17	**Analytical Method:**	SW8260B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2	1706B91-022A	Water	06/23/2017 10:43	GC16	141009

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	5.0	10	06/24/2017 21:46
cis-1,3-Dichloropropene	ND	5.0	10	06/24/2017 21:46
trans-1,3-Dichloropropene	ND	5.0	10	06/24/2017 21:46
Diisopropyl ether (DIPE)	ND	5.0	10	06/24/2017 21:46
Ethylbenzene	ND	5.0	10	06/24/2017 21:46
Ethyl tert-butyl ether (ETBE)	ND	5.0	10	06/24/2017 21:46
Freon 113	ND	5.0	10	06/24/2017 21:46
Hexachlorobutadiene	ND	5.0	10	06/24/2017 21:46
Hexachloroethane	ND	5.0	10	06/24/2017 21:46
2-Hexanone	ND	5.0	10	06/24/2017 21:46
Isopropylbenzene	ND	5.0	10	06/24/2017 21:46
4-Isopropyl toluene	ND	5.0	10	06/24/2017 21:46
Methyl-t-butyl ether (MTBE)	ND	5.0	10	06/24/2017 21:46
Methylene chloride	ND	5.0	10	06/24/2017 21:46
4-Methyl-2-pentanone (MIBK)	ND	5.0	10	06/24/2017 21:46
Naphthalene	ND	5.0	10	06/24/2017 21:46
n-Propyl benzene	ND	5.0	10	06/24/2017 21:46
Styrene	ND	5.0	10	06/24/2017 21:46
1,1,1,2-Tetrachloroethane	ND	5.0	10	06/24/2017 21:46
1,1,2,2-Tetrachloroethane	ND	5.0	10	06/24/2017 21:46
Tetrachloroethene	ND	5.0	10	06/24/2017 21:46
Toluene	ND	5.0	10	06/24/2017 21:46
1,2,3-Trichlorobenzene	ND	5.0	10	06/24/2017 21:46
1,2,4-Trichlorobenzene	ND	5.0	10	06/24/2017 21:46
1,1,1-Trichloroethane	ND	5.0	10	06/24/2017 21:46
1,1,2-Trichloroethane	ND	5.0	10	06/24/2017 21:46
Trichloroethene	ND	5.0	10	06/24/2017 21:46
Trichlorofluoromethane	ND	5.0	10	06/24/2017 21:46
1,2,3-Trichloropropane	ND	5.0	10	06/24/2017 21:46
1,2,4-Trimethylbenzene	ND	5.0	10	06/24/2017 21:46
1,3,5-Trimethylbenzene	ND	5.0	10	06/24/2017 21:46
Vinyl Chloride	ND	5.0	10	06/24/2017 21:46
Xylenes, Total	ND	5.0	10	06/24/2017 21:46

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17-6/24/17	**Analytical Method:**	SW8260B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2	**1706B91-022A**	**Water**	**06/23/2017 10:43**	**GC16**	**141009**

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	111	70-130		06/24/2017 21:46
Toluene-d8	101	70-130		06/24/2017 21:46
4-BFB	103	70-130		06/24/2017 21:46

Analyst(s): KF Analytical Comments: b1

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17-6/24/17	**Analytical Method:**	SW8260B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3	1706B91-023A	Water	06/23/2017 10:31	GC16	141009

Analytes	Result	RL	DF	Date Analyzed
Acetone	**45**	10	1	06/24/2017 00:01
tert-Amyl methyl ether (TAME)	ND	0.50	1	06/24/2017 00:01
Benzene	ND	0.50	1	06/24/2017 00:01
Bromobenzene	ND	0.50	1	06/24/2017 00:01
Bromochloromethane	ND	0.50	1	06/24/2017 00:01
Bromodichloromethane	ND	0.50	1	06/24/2017 00:01
Bromoform	ND	0.50	1	06/24/2017 00:01
Bromomethane	ND	0.50	1	06/24/2017 00:01
2-Butanone (MEK)	**62**	2.0	1	06/24/2017 00:01
t-Butyl alcohol (TBA)	ND	2.0	1	06/24/2017 00:01
n-Butyl benzene	ND	0.50	1	06/24/2017 00:01
sec-Butyl benzene	ND	0.50	1	06/24/2017 00:01
tert-Butyl benzene	ND	0.50	1	06/24/2017 00:01
Carbon Disulfide	ND	0.50	1	06/24/2017 00:01
Carbon Tetrachloride	ND	0.50	1	06/24/2017 00:01
Chlorobenzene	ND	0.50	1	06/24/2017 00:01
Chloroethane	ND	0.50	1	06/24/2017 00:01
Chloroform	ND	0.50	1	06/24/2017 00:01
Chloromethane	ND	0.50	1	06/24/2017 00:01
2-Chlorotoluene	ND	0.50	1	06/24/2017 00:01
4-Chlorotoluene	ND	0.50	1	06/24/2017 00:01
Dibromochloromethane	ND	0.50	1	06/24/2017 00:01
1,2-Dibromo-3-chloropropane	ND	0.20	1	06/24/2017 00:01
1,2-Dibromoethane (EDB)	ND	0.50	1	06/24/2017 00:01
Dibromomethane	ND	0.50	1	06/24/2017 00:01
1,2-Dichlorobenzene	ND	0.50	1	06/24/2017 00:01
1,3-Dichlorobenzene	ND	0.50	1	06/24/2017 00:01
1,4-Dichlorobenzene	ND	0.50	1	06/24/2017 00:01
Dichlorodifluoromethane	ND	0.50	1	06/24/2017 00:01
1,1-Dichloroethane	ND	0.50	1	06/24/2017 00:01
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	06/24/2017 00:01
1,1-Dichloroethene	ND	0.50	1	06/24/2017 00:01
cis-1,2-Dichloroethene	ND	0.50	1	06/24/2017 00:01
trans-1,2-Dichloroethene	ND	0.50	1	06/24/2017 00:01
1,2-Dichloropropane	ND	0.50	1	06/24/2017 00:01
1,3-Dichloropropane	ND	0.50	1	06/24/2017 00:01
2,2-Dichloropropane	ND	0.50	1	06/24/2017 00:01

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17-6/24/17	**Analytical Method:**	SW8260B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3	1706B91-023A	Water	06/23/2017 10:31	GC16	141009

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	06/24/2017 00:01
cis-1,3-Dichloropropene	ND	0.50	1	06/24/2017 00:01
trans-1,3-Dichloropropene	ND	0.50	1	06/24/2017 00:01
Diisopropyl ether (DIPE)	ND	0.50	1	06/24/2017 00:01
Ethylbenzene	ND	0.50	1	06/24/2017 00:01
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	06/24/2017 00:01
Freon 113	ND	0.50	1	06/24/2017 00:01
Hexachlorobutadiene	ND	0.50	1	06/24/2017 00:01
Hexachloroethane	ND	0.50	1	06/24/2017 00:01
2-Hexanone	ND	0.50	1	06/24/2017 00:01
Isopropylbenzene	ND	0.50	1	06/24/2017 00:01
4-Isopropyl toluene	ND	0.50	1	06/24/2017 00:01
Methyl-t-butyl ether (MTBE)	ND	0.50	1	06/24/2017 00:01
Methylene chloride	ND	0.50	1	06/24/2017 00:01
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	06/24/2017 00:01
Naphthalene	ND	0.50	1	06/24/2017 00:01
n-Propyl benzene	ND	0.50	1	06/24/2017 00:01
Styrene	ND	0.50	1	06/24/2017 00:01
1,1,1,2-Tetrachloroethane	ND	0.50	1	06/24/2017 00:01
1,1,2,2-Tetrachloroethane	ND	0.50	1	06/24/2017 00:01
Tetrachloroethene	ND	0.50	1	06/24/2017 00:01
Toluene	ND	0.50	1	06/24/2017 00:01
1,2,3-Trichlorobenzene	ND	0.50	1	06/24/2017 00:01
1,2,4-Trichlorobenzene	ND	0.50	1	06/24/2017 00:01
1,1,1-Trichloroethane	ND	0.50	1	06/24/2017 00:01
1,1,2-Trichloroethane	ND	0.50	1	06/24/2017 00:01
Trichloroethene	ND	0.50	1	06/24/2017 00:01
Trichlorofluoromethane	ND	0.50	1	06/24/2017 00:01
1,2,3-Trichloropropane	ND	0.50	1	06/24/2017 00:01
1,2,4-Trimethylbenzene	ND	0.50	1	06/24/2017 00:01
1,3,5-Trimethylbenzene	ND	0.50	1	06/24/2017 00:01
Vinyl Chloride	ND	0.50	1	06/24/2017 00:01
Xylenes, Total	ND	0.50	1	06/24/2017 00:01

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17-6/24/17	**Analytical Method:**	SW8260B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3	1706B91-023A	Water	06/23/2017 10:31	GC16	141009

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	112	70-130		06/24/2017 00:01
Toluene-d8	101	70-130		06/24/2017 00:01
4-BFB	105	70-130		06/24/2017 00:01

Analyst(s): KF Analytical Comments: b1

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17	**Analytical Method:**	SW8021B/8015Bm
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1-11.5	1706B91-007A	Soil	06/23/2017 09:01	GC7	140984

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	06/24/2017 13:25
MTBE	---	0.050	1	06/24/2017 13:25
Benzene	---	0.0050	1	06/24/2017 13:25
Toluene	---	0.0050	1	06/24/2017 13:25
Ethylbenzene	---	0.0050	1	06/24/2017 13:25
Xylenes	---	0.015	1	06/24/2017 13:25

Surrogates	REC (%)	Limits	
2-Fluorotoluene	85	62-126	06/24/2017 13:25

Analyst(s): HD

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2-13.5	1706B91-014A	Soil	06/23/2017 09:54	GC7	140984

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	06/24/2017 13:56
MTBE	---	0.050	1	06/24/2017 13:56
Benzene	---	0.0050	1	06/24/2017 13:56
Toluene	---	0.0050	1	06/24/2017 13:56
Ethylbenzene	---	0.0050	1	06/24/2017 13:56
Xylenes	---	0.015	1	06/24/2017 13:56

Surrogates	REC (%)	Limits	
2-Fluorotoluene	87	62-126	06/24/2017 13:56

Analyst(s): HD

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/23/17	**Analytical Method:**	SW8021B/8015Bm
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3-11.5	1706B91-024A	Soil	06/23/2017 11:05	GC7	140984

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	06/24/2017 14:26
MTBE	---	0.050	1	06/24/2017 14:26
Benzene	---	0.0050	1	06/24/2017 14:26
Toluene	---	0.0050	1	06/24/2017 14:26
Ethylbenzene	---	0.0050	1	06/24/2017 14:26
Xylenes	---	0.015	1	06/24/2017 14:26

Surrogates	REC (%)	Limits	
2-Fluorotoluene	86	62-126	06/24/2017 14:26

Analyst(s): HD

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/24/17-6/26/17	**Analytical Method:**	SW8021B/8015Bm
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1	**1706B91-021B**	**Water**	**06/23/2017 10:20**	**GC3**	**141033**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	06/24/2017 14:28
MTBE	---	5.0	1	06/24/2017 14:28
Benzene	---	0.50	1	06/24/2017 14:28
Toluene	---	0.50	1	06/24/2017 14:28
Ethylbenzene	---	0.50	1	06/24/2017 14:28
Xylenes	---	1.5	1	06/24/2017 14:28

Surrogates	REC (%)	Limits	
aaa-TFT	101	89-115	06/24/2017 14:28

Analyst(s): HD Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2	**1706B91-022B**	**Water**	**06/23/2017 10:43**	**GC3**	**141029**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	**300**	50	1	06/24/2017 14:59
MTBE	---	5.0	1	06/24/2017 14:59
Benzene	---	0.50	1	06/24/2017 14:59
Toluene	---	0.50	1	06/24/2017 14:59
Ethylbenzene	---	0.50	1	06/24/2017 14:59
Xylenes	---	1.5	1	06/24/2017 14:59

Surrogates	REC (%)	Limits	
aaa-TFT	97	89-115	06/24/2017 14:59

Analyst(s): HD Analytical Comments: d6,b1

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW5030B
Date Prepared:	6/24/17-6/26/17	**Analytical Method:**	SW8021B/8015Bm
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3	1706B91-023B	Water	06/23/2017 10:31	GC3	141029

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	06/26/2017 17:35
MTBE	---	5.0	1	06/26/2017 17:35
Benzene	---	0.50	1	06/26/2017 17:35
Toluene	---	0.50	1	06/26/2017 17:35
Ethylbenzene	---	0.50	1	06/26/2017 17:35
Xylenes	---	1.5	1	06/26/2017 17:35

Surrogates	REC (%)	Limits	
aaa-TFT	95	89-115	06/26/2017 17:35

Analyst(s): HD Analytical Comments: b1

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW3550B
Date Prepared:	6/23/17	**Analytical Method:**	SW8015B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1-11.5	1706B91-007A	Soil	06/23/2017 09:01	GC9b	140982

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	06/26/2017 15:58
TPH-Motor Oil (C18-C36)	ND	5.0	1	06/26/2017 15:58

Surrogates	REC (%)	Limits	
C9	87	78-109	06/26/2017 15:58

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2-13.5	1706B91-014A	Soil	06/23/2017 09:54	GC9b	140982

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	06/26/2017 16:37
TPH-Motor Oil (C18-C36)	ND	5.0	1	06/26/2017 16:37

Surrogates	REC (%)	Limits	
C9	87	78-109	06/26/2017 16:37

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3-11.5	1706B91-024A	Soil	06/23/2017 11:05	GC9a	140982

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**27**	20	20	06/26/2017 15:58
TPH-Motor Oil (C18-C36)	**360**	100	20	06/26/2017 15:58

Surrogates	REC (%)	Limits	
C9	105	78-109	06/26/2017 15:58

Analyst(s): TK Analytical Comments: e7,e2

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Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Received:	6/23/17 17:45	**Extraction Method:**	SW3510C
Date Prepared:	6/23/17	**Analytical Method:**	SW8015B
Project:	373403; 4300 Broadway St., Oakland	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-1	1706B91-021B	Water	06/23/2017 10:20	GC6A	140983

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	100	1	06/24/2017 11:48
TPH-Motor Oil (C18-C36)	**710**	500	1	06/24/2017 11:48

Surrogates	REC (%)	Limits	
C9	88	66-138	06/24/2017 11:48

Analyst(s): TK Analytical Comments: e7,a3,b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-2	1706B91-022B	Water	06/23/2017 10:43	GC6B	140983

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**220**	200	2	06/27/2017 00:54
TPH-Motor Oil (C18-C36)	**3500**	1000	2	06/27/2017 00:54

Surrogates	REC (%)	Limits	
C9	102	66-138	06/27/2017 00:54

Analyst(s): TK Analytical Comments: e7,e2,b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-3	1706B91-023B	Water	06/23/2017 10:31	GC6A	140983

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**120**	100	1	06/24/2017 16:59
TPH-Motor Oil (C18-C36)	**920**	500	1	06/24/2017 16:59

Surrogates	REC (%)	Limits	
C9	89	66-138	06/24/2017 16:59

Analyst(s): TK Analytical Comments: e7,e2,b1

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Prepared:	6/22/17	**BatchID:**	140920
Date Analyzed:	6/24/17	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	373403; 4300 Broadway St., Oakland	**Sample ID:**	MB/LCS-140920

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	1.09	0.10	1	-	109	72-156
tert-Amyl methyl ether (TAME)	ND	0.0312	0.0050	0.050	-	62	53-116
Benzene	ND	0.0361	0.0050	0.050	-	72	63-137
Bromobenzene	ND	0.0443	0.0050	0.050	-	89	68-126
Bromochloromethane	ND	0.0379	0.0050	0.050	-	76	72-126
Bromodichloromethane	ND	0.0376	0.0050	0.050	-	75	61-127
Bromoform	ND	0.0308	0.0050	0.050	-	62	49-100
Bromomethane	ND	0.0456	0.0050	0.050	-	91	40-161
2-Butanone (MEK)	ND	0.182	0.020	0.20	-	91	43-157
t-Butyl alcohol (TBA)	ND	0.156	0.050	0.20	-	78	41-135
n-Butyl benzene	ND	0.0746	0.0050	0.050	-	149	102-160
sec-Butyl benzene	ND	0.0720	0.0050	0.050	-	144	74-168
tert-Butyl benzene	ND	0.0596	0.0050	0.050	-	119	88-157
Carbon Disulfide	ND	0.0288	0.0050	0.050	-	58	42-151
Carbon Tetrachloride	ND	0.0319	0.0050	0.050	-	64	49-149
Chlorobenzene	ND	0.0435	0.0050	0.050	-	87	77-121
Chloroethane	ND	0.0450	0.0050	0.050	-	90	41-134
Chloroform	ND	0.0383	0.0050	0.050	-	77	69-133
Chloromethane	ND	0.0389	0.0050	0.050	-	78	31-119
2-Chlorotoluene	ND	0.0520	0.0050	0.050	-	104	79-139
4-Chlorotoluene	ND	0.0475	0.0050	0.050	-	95	77-138
Dibromochloromethane	ND	0.0363	0.0050	0.050	-	73	58-121
1,2-Dibromo-3-chloropropane	ND	0.0133	0.0040	0.020	-	66	39-115
1,2-Dibromoethane (EDB)	ND	0.0422	0.0040	0.050	-	85	67-119
Dibromomethane	ND	0.0396	0.0050	0.050	-	79	66-117
1,2-Dichlorobenzene	ND	0.0397	0.0050	0.050	-	79	59-109
1,3-Dichlorobenzene	ND	0.0511	0.0050	0.050	-	102	75-130
1,4-Dichlorobenzene	ND	0.0478	0.0050	0.050	-	96	71-122
Dichlorodifluoromethane	ND	0.0220	0.0050	0.050	-	44	43-68
1,1-Dichloroethane	ND	0.0356	0.0050	0.050	-	71	62-139
1,2-Dichloroethane (1,2-DCA)	ND	0.0382	0.0040	0.050	-	76	58-135
1,1-Dichloroethene	ND	0.0306	0.0050	0.050	-	61	42-145
cis-1,2-Dichloroethene	ND	0.0372	0.0050	0.050	-	74	67-129
trans-1,2-Dichloroethene	ND	0.0329	0.0050	0.050	-	66	54-139
1,2-Dichloropropane	ND	0.0384	0.0050	0.050	-	77	68-125
1,3-Dichloropropane	ND	0.0431	0.0050	0.050	-	86	65-125
2,2-Dichloropropane	ND	0.0318	0.0050	0.050	-	64	45-151

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Prepared:	6/22/17	**BatchID:**	140920
Date Analyzed:	6/24/17	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	373403; 4300 Broadway St., Oakland	**Sample ID:**	MB/LCS-140920

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	0.0333	0.0050	0.050	-	67	64-138
cis-1,3-Dichloropropene	ND	0.0410	0.0050	0.050	-	82	62-134
trans-1,3-Dichloropropene	ND	0.0421	0.0050	0.050	-	84	59-128
Diisopropyl ether (DIPE)	ND	0.0357	0.0050	0.050	-	71	52-129
Ethylbenzene	ND	0.0473	0.0050	0.050	-	95	74-142
Ethyl tert-butyl ether (ETBE)	ND	0.0339	0.0050	0.050	-	68	53-125
Freon 113	ND	0.0297	0.0050	0.050	-	59	51-126
Hexachlorobutadiene	ND	0.0572	0.0050	0.050	-	114	70-158
Hexachloroethane	ND	0.0569	0.0050	0.050	-	114	80-160
2-Hexanone	ND	0.0347	0.0050	0.050	-	69	41-116
Isopropylbenzene	ND	0.0491	0.0050	0.050	-	98	77-146
4-Isopropyl toluene	ND	0.0570	0.0050	0.050	-	114	96-159
Methyl-t-butyl ether (MTBE)	ND	0.0343	0.0050	0.050	-	69	58-122
Methylene chloride	ND	0.0380	0.0050	0.050	-	76	58-135
4-Methyl-2-pentanone (MIBK)	ND	0.0354	0.0050	0.050	-	71	40-112
Naphthalene	ND	0.0225	0.0050	0.050	-	45	23-73
n-Propyl benzene	ND	0.0597	0.0050	0.050	-	119	82-160
Styrene	ND	0.0409	0.0050	0.050	-	82	68-124
1,1,1,2-Tetrachloroethane	ND	0.0428	0.0050	0.050	-	86	70-128
1,1,2,2-Tetrachloroethane	ND	0.0438	0.0050	0.050	-	88	57-111
Tetrachloroethene	ND	0.0401	0.0050	0.050	-	80	73-145
Toluene	ND	0.0411	0.0050	0.050	-	82	76-130
1,2,3-Trichlorobenzene	ND	0.0265	0.0050	0.050	-	53	43-72
1,2,4-Trichlorobenzene	ND	0.0329	0.0050	0.050	-	66	47-95
1,1,1-Trichloroethane	ND	0.0334	0.0050	0.050	-	67	60-141
1,1,2-Trichloroethane	ND	0.0420	0.0050	0.050	-	84	62-118
Trichloroethene	ND	0.0355	0.0050	0.050	-	71, F2	72-132
Trichlorofluoromethane	ND	0.0304	0.0050	0.050	-	61	43-135
1,2,3-Trichloropropane	ND	0.0476	0.0050	0.050	-	95	57-122
1,2,4-Trimethylbenzene	ND	0.0577	0.0050	0.050	-	115	81-152
1,3,5-Trimethylbenzene	ND	0.0596	0.0050	0.050	-	119	78-160
Vinyl Chloride	ND	0.0412	0.0050	0.050	-	82	42-131
Xylenes, Total	ND	0.131	0.0050	0.15	-	87	70-130

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QA/QC Officer

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Prepared:	6/22/17	**BatchID:**	140920
Date Analyzed:	6/24/17	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/kg
Project:	373403; 4300 Broadway St., Oakland	**Sample ID:**	MB/LCS-140920

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	0.1426	0.146		0.12	114	116	70-130
Toluene-d8	0.1611	0.163		0.12	129	131, F2	70-130
4-BFB	0.01251	0.0125		0.012	100	100	70-130
Benzene-d6	0.1079	0.107		0.10	108	107	60-140
Ethylbenzene-d10	0.1325	0.133		0.10	133	133	60-140
1,2-DCB-d4	0.08701	0.0870		0.10	87	87	60-140

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Prepared:	6/23/17	**BatchID:**	141009
Date Analyzed:	6/23/17	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	373403; 4300 Broadway St., Oakland	**Sample ID:**	MB/LCS/LCSD-141009

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	10	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.50	-	-	-
Benzene	ND	0.50	-	-	-
Bromobenzene	ND	0.50	-	-	-
Bromochloromethane	ND	0.50	-	-	-
Bromodichloromethane	ND	0.50	-	-	-
Bromoform	ND	0.50	-	-	-
Bromomethane	ND	0.50	-	-	-
2-Butanone (MEK)	ND	2.0	-	-	-
t-Butyl alcohol (TBA)	ND	2.0	-	-	-
n-Butyl benzene	ND	0.50	-	-	-
sec-Butyl benzene	ND	0.50	-	-	-
tert-Butyl benzene	ND	0.50	-	-	-
Carbon Disulfide	ND	0.50	-	-	-
Carbon Tetrachloride	ND	0.50	-	-	-
Chlorobenzene	ND	0.50	-	-	-
Chloroethane	ND	0.50	-	-	-
Chloroform	ND	0.50	-	-	-
Chloromethane	ND	0.50	-	-	-
2-Chlorotoluene	ND	0.50	-	-	-
4-Chlorotoluene	ND	0.50	-	-	-
Dibromochloromethane	ND	0.50	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.20	-	-	-
1,2-Dibromoethane (EDB)	ND	0.50	-	-	-
Dibromomethane	ND	0.50	-	-	-
1,2-Dichlorobenzene	ND	0.50	-	-	-
1,3-Dichlorobenzene	ND	0.50	-	-	-
1,4-Dichlorobenzene	ND	0.50	-	-	-
Dichlorodifluoromethane	ND	0.50	-	-	-
1,1-Dichloroethane	ND	0.50	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.50	-	-	-
1,1-Dichloroethene	ND	0.50	-	-	-
cis-1,2-Dichloroethene	ND	0.50	-	-	-
trans-1,2-Dichloroethene	ND	0.50	-	-	-
1,2-Dichloropropane	ND	0.50	-	-	-
1,3-Dichloropropane	ND	0.50	-	-	-
2,2-Dichloropropane	ND	0.50	-	-	-
1,1-Dichloropropene	ND	0.50	-	-	-
cis-1,3-Dichloropropene	ND	0.50	-	-	-

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Prepared:	6/23/17	**BatchID:**	141009
Date Analyzed:	6/23/17	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	373403; 4300 Broadway St., Oakland	**Sample ID:**	MB/LCS/LCSD-141009

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
trans-1,3-Dichloropropene	ND	0.50	-	-	-
Diisopropyl ether (DIPE)	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.50	-	-	-
Freon 113	ND	0.50	-	-	-
Hexachlorobutadiene	ND	0.50	-	-	-
Hexachloroethane	ND	0.50	-	-	-
2-Hexanone	ND	0.50	-	-	-
Isopropylbenzene	ND	0.50	-	-	-
4-Isopropyl toluene	ND	0.50	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.50	-	-	-
Methylene chloride	ND	0.50	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.50	-	-	-
Naphthalene	ND	0.50	-	-	-
n-Propyl benzene	ND	0.50	-	-	-
Styrene	ND	0.50	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.50	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.50	-	-	-
Tetrachloroethene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
1,2,3-Trichlorobenzene	ND	0.50	-	-	-
1,2,4-Trichlorobenzene	ND	0.50	-	-	-
1,1,1-Trichloroethane	ND	0.50	-	-	-
1,1,2-Trichloroethane	ND	0.50	-	-	-
Trichloroethene	ND	0.50	-	-	-
Trichlorofluoromethane	ND	0.50	-	-	-
1,2,3-Trichloropropane	ND	0.50	-	-	-
1,2,4-Trimethylbenzene	ND	0.50	-	-	-
1,3,5-Trimethylbenzene	ND	0.50	-	-	-
Vinyl Chloride	ND	0.50	-	-	-
Xylenes, Total	ND	0.50	-	-	-
Surrogate Recovery					
Dibromofluoromethane	27.46		25	110	70-130
Toluene-d8	25.44		25	102	70-130
4-BFB	2.658		2.5	106	70-130

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Prepared:	6/23/17	**BatchID:**	141009
Date Analyzed:	6/23/17	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	373403; 4300 Broadway St., Oakland	**Sample ID:**	MB/LCS/LCSD-141009

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acetone	153	158	200	76	79	46-155	3.49	20
tert-Amyl methyl ether (TAME)	8.99	8.77	10	90	88	54-140	2.50	20
Benzene	10.2	9.16	10	102	92	47-158	10.8	20
Bromobenzene	10.6	8.84	10	106	88	50-155	18.0	20
Bromochloromethane	9.90	9.09	10	99	91	48-160	8.52	20
Bromodichloromethane	9.36	8.72	10	94	87	60-156	7.12	20
Bromoform	9.88	10.2	10	99	102	43-149	2.74	20
Bromomethane	11.6	10.4	10	116	104	61-159	11.3	20
2-Butanone (MEK)	34.8	35.8	40	87	89	61-124	2.92	20
t-Butyl alcohol (TBA)	29.1	30.3	40	73	76	42-140	3.87	20
n-Butyl benzene	11.3	9.77	10	113	98	74-138	14.1	20
sec-Butyl benzene	11.3	9.66	10	113	97	72-142	15.5	20
tert-Butyl benzene	10.9	8.25	10	109	83	74-140	27.5,F2	20
Carbon Disulfide	10.1	8.93	10	101	89	64-127	12.3	20
Carbon Tetrachloride	10.6	9.28	10	106	93	61-158	13.5	20
Chlorobenzene	9.79	8.84	10	98	88	43-157	10.2	20
Chloroethane	11.0	9.57	10	110	96	50-127	13.5	20
Chloroform	9.94	8.99	10	99	90	56-154	10.1	20
Chloromethane	10.2	8.91	10	101	89	41-132	13.0	20
2-Chlorotoluene	11.3	9.70	10	113	97	50-155	15.5	20
4-Chlorotoluene	10.9	9.46	10	109	95	53-153	14.0	20
Dibromochloromethane	9.49	9.49	10	95	95	49-156	0	20
1,2-Dibromo-3-chloropropane	3.58	3.70	4	90	92	46-149	3.15	20
1,2-Dibromoethane (EDB)	9.18	9.40	10	92	94	44-155	2.35	20
Dibromomethane	9.22	9.02	10	92	90	50-157	2.25	20
1,2-Dichlorobenzene	10.0	9.17	10	100	92	48-156	8.71	20
1,3-Dichlorobenzene	10.7	9.60	10	107	96	49-159	10.8	20
1,4-Dichlorobenzene	10.2	9.34	10	102	93	51-151	9.17	20
Dichlorodifluoromethane	9.82	8.55	10	98	85	61-117	13.8	20
1,1-Dichloroethane	9.77	8.78	10	98	88	53-153	10.6	20
1,2-Dichloroethane (1,2-DCA)	9.06	8.62	10	91	86	66-125	4.93	20
1,1-Dichloroethene	9.91	8.75	10	99	88	47-149	12.4	20
cis-1,2-Dichloroethene	9.71	8.76	10	97	88	54-155	10.3	20
trans-1,2-Dichloroethene	10.1	8.96	10	101	90	46-151	11.6	20
1,2-Dichloropropane	9.64	8.82	10	96	88	54-153	8.97	20
1,3-Dichloropropane	9.15	9.21	10	91	92	49-150	0.694	20
2,2-Dichloropropane	10.1	8.97	10	101	90	74-147	12.3	20
1,1-Dichloropropene	10.1	8.90	10	101	89	54-150	12.8	20
cis-1,3-Dichloropropene	9.34	9.07	10	93	91	55-159	2.88	20

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Prepared:	6/23/17	**BatchID:**	141009
Date Analyzed:	6/23/17	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	373403; 4300 Broadway St., Oakland	**Sample ID:**	MB/LCS/LCSD-141009

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	9.52	9.43	10	95	94	74-131	0.886	20
Diisopropyl ether (DIPE)	9.24	8.57	10	92	86	57-136	7.51	20
Ethylbenzene	9.95	8.85	10	99	88	60-152	11.7	20
Ethyl tert-butyl ether (ETBE)	9.39	8.96	10	94	90	55-137	4.67	20
Freon 113	10.4	9.07	10	104	91	47-138	13.8	20
Hexachlorobutadiene	10.6	9.09	10	106	91	66-160	15.5	20
Hexachloroethane	10.9	8.98	10	109	90	75-130	19.0	20
2-Hexanone	8.08	8.58	10	81	86	70-115	6.05	20
Isopropylbenzene	9.84	9.01	10	98	90	59-156	8.88	20
4-Isopropyl toluene	11.1	9.59	10	111	96	75-138	14.5	20
Methyl-t-butyl ether (MTBE)	9.13	8.90	10	91	89	53-139	2.58	20
Methylene chloride	8.63	7.97	10	86	80	66-127	8.00	20
4-Methyl-2-pentanone (MIBK)	8.11	8.27	10	81	83	42-153	1.91	20
Naphthalene	9.41	9.19	10	94	92	66-127	2.38	20
n-Propyl benzene	11.1	9.39	10	111	94	54-155	17.1	20
Styrene	9.69	9.38	10	97	94	51-152	3.21	20
1,1,1,2-Tetrachloroethane	9.80	9.39	10	98	94	58-159	4.27	20
1,1,2,2-Tetrachloroethane	9.30	8.48	10	93	85	51-150	9.13	20
Tetrachloroethene	9.61	8.62	10	96	86	55-145	10.8	20
Toluene	9.64	8.71	10	96	87	52-137	10.1	20
1,2,3-Trichlorobenzene	9.59	8.81	10	96	88	70-136	8.54	20
1,2,4-Trichlorobenzene	10.4	9.22	10	104	92	74-137	11.8	20
1,1,1-Trichloroethane	10.0	8.88	10	100	89	57-156	12.1	20
1,1,2-Trichloroethane	8.93	9.19	10	89	92	51-150	2.85	20
Trichloroethene	9.88	8.84	10	99	88	43-157	11.2	20
Trichlorofluoromethane	10.5	9.27	10	105	93	50-147	12.5	20
1,2,3-Trichloropropane	9.85	8.93	10	99	89	41-152	9.81	20
1,2,4-Trimethylbenzene	11.2	9.71	10	112	97	57-157	14.6	20
1,3,5-Trimethylbenzene	11.5	9.76	10	115	98	56-159	16.0	20
Vinyl Chloride	11.5	9.66	10	115	97	42-137	17.1	20
Xylenes, Total	29.5	27.5	30	98	92	70-130	7.01	20
Surrogate Recovery								
Dibromofluoromethane	27.2	27.7	25	109	111	70-130	1.73	20
Toluene-d8	25.6	26.0	25	102	104	70-130	1.90	20
4-BFB	2.62	2.47	2.5	105	99	70-130	5.63	20

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Prepared:	6/23/17	**BatchID:**	140984
Date Analyzed:	6/24/17	**Extraction Method:**	SW5030B
Instrument:	GC7	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Soil	**Unit:**	mg/Kg
Project:	373403; 4300 Broadway St., Oakland	**Sample ID:**	MB/LCS-140984

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.558	0.40	0.60	-	93	82-118
MTBE	ND	0.0855	0.050	0.10	-	86	61-119
Benzene	ND	0.0931	0.0050	0.10	-	93	77-128
Toluene	ND	0.0989	0.0050	0.10	-	99	74-132
Ethylbenzene	ND	0.102	0.0050	0.10	-	102	84-127
Xylenes	ND	0.326	0.015	0.30	-	109	86-129
Surrogate Recovery							
2-Fluorotoluene	0.09055	0.0842		0.10	91	84	75-134

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Prepared:	6/24/17	**BatchID:**	141029
Date Analyzed:	6/24/17	**Extraction Method:**	SW5030B
Instrument:	GC3	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Water	**Unit:**	µg/L
Project:	373403; 4300 Broadway St., Oakland	**Sample ID:**	MB/LCS-141029 1706B30-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	58.4	40	60	-	97	78-116
MTBE	ND	9.02	5.0	10	-	90	72-122
Benzene	ND	9.59	0.50	10	-	96	81-123
Toluene	ND	10.0	0.50	10	-	100	83-129
Ethylbenzene	ND	10.3	0.50	10	-	103	88-126
Xylenes	ND	31.8	1.5	30	-	106	87-131
Surrogate Recovery							
aaa-TFT	10.07	10.7		10	101	107	89-116

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	56.8	59.0	60	ND	95	98	63-133	3.74	20
MTBE	8.53	8.86	10	ND	85	89	69-122	3.84	20
Benzene	8.85	8.58	10	ND	89	86	84-125	3.15	20
Toluene	9.32	9.08	10	ND	93	91	87-131	2.67	20
Ethylbenzene	9.83	9.53	10	ND	98	95	92-126	3.09	20
Xylenes	30.4	29.6	30	ND	101	99	88-132	2.81	20
Surrogate Recovery									
aaa-TFT	10.4	9.96	10		104	100	90-117	4.10	20

(Cont.)

NELAP 4033ORELAP

QA/QC Officer

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Prepared:	6/26/17	**BatchID:**	141033
Date Analyzed:	6/26/17	**Extraction Method:**	SW5030B
Instrument:	GC3	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Water	**Unit:**	µg/L
Project:	373403; 4300 Broadway St., Oakland	**Sample ID:**	MB/LCS-141033 1706B09-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	59.2	40	60	-	99	78-116
MTBE	ND	8.70	5.0	10	-	87	72-122
Benzene	ND	8.84	0.50	10	-	88	81-123
Toluene	ND	9.27	0.50	10	-	93	83-129
Ethylbenzene	ND	9.82	0.50	10	-	98	88-126
Xylenes	ND	30.6	1.5	30	-	102	87-131
Surrogate Recovery							
aaa-TFT	9.866	9.80		10	99	98	89-116

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	55.2	58.9	60	ND	92	98	63-133	6.42	20
MTBE	8.86	9.47	10	ND	89	95	69-122	6.63	20
Benzene	8.64	8.62	10	ND	86	86	84-125	0	20
Toluene	9.06	9.09	10	ND	91	91	87-131	0	20
Ethylbenzene	9.48	9.53	10	ND	95	95	92-126	0	20
Xylenes	29.4	29.6	30	ND	98	99	88-132	0.835	20
Surrogate Recovery									
aaa-TFT	10.2	9.74	10		101	97	90-117	4.05	20

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Prepared:	6/23/17	**BatchID:**	140982
Date Analyzed:	6/23/17	**Extraction Method:**	SW3550B
Instrument:	GC9b	**Analytical Method:**	SW8015B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	373403; 4300 Broadway St., Oakland	**Sample ID:**	MB/LCS-140982 1706B79-001AMS/MSD

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	37.6	1.0	40	-	94	79-133
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-
Surrogate Recovery							
C9	22.31	21.8		25	89	87	77-109

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	43.1	43.0	40	5.490	94	94	59-150	0	30
Surrogate Recovery									
C9	21.8	21.9	25		87	88	78-109	0.644	30

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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1706B91
Date Prepared:	6/23/17	**BatchID:**	140983
Date Analyzed:	6/23/17 - 6/24/17	**Extraction Method:**	SW3510C
Instrument:	GC39A	**Analytical Method:**	SW8015B
Matrix:	Water	**Unit:**	µg/L
Project:	373403; 4300 Broadway St., Oakland	**Sample ID:**	MB/LCS/LCSD-140983

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	50	-	-	-
TPH-Motor Oil (C18-C36)	ND	250	-	-	-
Surrogate Recovery					
C9	635.5		625	102	79-111

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1130	1170	1000	113	117	88-134	3.55	30
Surrogate Recovery								
C9	629	643	625	101	103	79-111	2.25	30

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 1706B91 **ClientCode: AEL**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ▣ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
William Hicks
AEI Consultants
2500 Camino Diablo, Ste.#200
Walnut Creek, CA 94597
(925) 321-3561 FAX: (925) 283-6121

Email: whix@aeiconsultants.com
cc/3rd Party: vstatham@aeiconsultants.com;
PO: 135583
ProjectNo: 373403; 4300 Broadway St., Oakland

Bill to:
Accounts Payable
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
AccountsPayable@AEIConsultants.com

Requested TAT: 2 days;

Date Received: **06/23/2017**
Date Logged: **06/23/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1706B91-007	SB-1-11.5	Soil	6/23/2017 09:01	☐	A		A		A							
1706B91-014	SB-2-13.5	Soil	6/23/2017 09:54	☐	A		A		A							
1706B91-021	SB-1	Water	6/23/2017 10:20	☐		A		B		B						
1706B91-022	SB-2	Water	6/23/2017 10:43	☐		A		B		B						
1706B91-023	SB-3	Water	6/23/2017 10:31	☐		A		B		B						
1706B91-024	SB-3-11.5	Soil	6/23/2017 11:05	☐	A		A		A							

Test Legend:

1	8260B_S	2	8260B_W	3	G-MBTEX_S	4	G-MBTEX_W
5	TPH(DMO)_S	6	TPH(DMO)_W	7		8	
9		10		11		12	

Prepared by: Kena Ponce

The following SampIDs: 007A, 014A, 024A contain testgroup Multi Range_S.; The following SampIDs: 021B, 022B, 023B contain testgroup Multi Range_W.

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: AEI CONSULTANTS
Client Contact: William Hicks
Contact's Email: whix@aeiconsultants.com

Project: 373403; 4300 Broadway St., Oakland
Comments:

Work Order: 1706B91
QC Level: LEVEL 2
Date Logged: 6/23/2017

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1706B91-001A	SB-1-0.5	Soil		1	Acetate Liner	☐	6/23/2017 8:51			☑	
1706B91-002A	SB-1-1.5	Soil		1	Acetate Liner	☐	6/23/2017 8:54			☑	
1706B91-003A	SB-1-3.5	Soil		1	Acetate Liner	☐	6/23/2017 9:12			☑	
1706B91-004A	SB-1-5.5	Soil		1	Acetate Liner	☐	6/23/2017 8:59			☑	
1706B91-005A	SB-1-7.5	Soil		1	Acetate Liner	☐	6/23/2017 8:57			☑	
1706B91-006A	SB-1-9.5	Soil		1	Acetate Liner	☐	6/23/2017 9:04			☑	
1706B91-007A	SB-1-11.5	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	Acetate Liner	☐	6/23/2017 9:01	2 days		☐	
			SW8260B (VOCs)			☐		2 days		☐	
1706B91-008A	SB-2-1.5	Soil		1	Acetate Liner	☐	6/23/2017 9:36			☑	
1706B91-009A	SB-2-3.5	Soil		1	Acetate Liner	☐	6/23/2017 9:39			☑	
1706B91-010A	SB-2-5.5	Soil		1	Acetate Liner	☐	6/23/2017 9:43			☑	
1706B91-011A	SB-2-7.5	Soil		1	Acetate Liner	☐	6/23/2017 9:38			☑	
1706B91-012A	SB-2-9.5	Soil		1	Acetate Liner	☐	6/23/2017 9:47			☑	
1706B91-013A	SB-2-11.5	Soil		1	Acetate Liner	☐	6/23/2017 9:45			☑	
1706B91-014A	SB-2-13.5	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	Acetate Liner	☐	6/23/2017 9:54	2 days		☐	
			SW8260B (VOCs)			☐		2 days		☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

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WORK ORDER SUMMARY

Client Name: AEI CONSULTANTS
Client Contact: William Hicks
Contact's Email: whix@aeiconsultants.com

Project: 373403; 4300 Broadway St., Oakland
Comments:

Work Order: 1706B91
QC Level: LEVEL 2
Date Logged: 6/23/2017

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1706B91-015A	SB-2-15.5	Soil		1	Acetate Liner	☐	6/23/2017 9:55			☑	
1706B91-016A	SB-3-1.5	Soil		1	Acetate Liner	☐	6/23/2017 10:57			☑	
1706B91-017A	SB-3-3.5	Soil		1	Acetate Liner	☐	6/23/2017 10:55			☑	
1706B91-018A	SB-3-5.5	Soil		1	Acetate Liner	☐	6/23/2017 11:04			☑	
1706B91-019A	SB-3-7.5	Soil		1	Acetate Liner	☐	6/23/2017 10:58			☑	
1706B91-020A	SB-3-9.5	Soil		1	Acetate Liner	☐	6/23/2017 11:07			☑	
1706B91-021A	SB-1	Water	SW8260B (VOCs)	2	VOA w/ HCl	☐	6/23/2017 10:20	2 days	25%+	☐	
1706B91-021B	SB-1	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	6/23/2017 10:20	2 days	25%+	☐	
1706B91-022A	SB-2	Water	SW8260B (VOCs)	2	VOA w/ HCl	☐	6/23/2017 10:43	2 days	25%+	☐	
1706B91-022B	SB-2	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	6/23/2017 10:43	2 days	25%+	☐	
1706B91-023A	SB-3	Water	SW8260B (VOCs)	2	VOA w/ HCl	☐	6/23/2017 10:31	2 days	25%+	☐	
1706B91-023B	SB-3	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	6/23/2017 10:31	2 days	25%+	☐	
1706B91-024A	SB-3-11.5	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	Acetate Liner	☐	6/23/2017 11:05	2 days		☐	
			SW8260B (VOCs)			☐		2 days		☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

General COC

MAI Work Order # 17061391

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RUSH

CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush | 2 Day Rush ● | 3 Day Rush | STD X | Quote #
J-Flag / MDL | ESL | Cleanup Approved | Bottle Order #
Delivery Format: GeoTracker EDF | PDF ● | EDD | Write On (DW) | EQuIS

Report To: AEI Consultants Bill To: AEI Consultants
Company: AEI Consultants
Email: whix@aeiconsultants.com
Alt Email: vstatham@aeiconsultants.com Tele: 925-746-6050
Project Name/#: 373403
Project Location: 4300 Broadway Street, Oakland PO #135583
Sampler Signature:

Analysis Requested

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	TPH Multi, g, d, mo	VOCs by 8260	Hold
SB-1-0.5	6/23/17	0851	1	Soil	Ice			X
SB-1-1.5		0854						X
SB-1-3.5		0912						X
SB-1-5.5		0859						
SB-1-7.5		0857						
SB-1-9.5		0904						
SB-1-11.5		0901				X	X	
SB-2-1.5		0936						X
SB-2-3.5		0939						X
SB-5.5		0943						X

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions
2 Day TAT

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
	6/23/17	1745		6/23/17	1745

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other
Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 3.9 °C (wet) Initials

Page 1 of 3

General COC

MAI Work Order # 1706B91

RUSH

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CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush | 2 Day Rush ● | 3 Day Rush | STD ● | Quote #
J-Flag / MDL | ESL | Cleanup Approved | Bottle Order #
Delivery Format: GeoTracker EDF | PDF ● | EDD | Write On (DW) | EQuIS

Report To: AEI Consultants Bill To: AEI Consultants
Company: AEI Consultants
Email: whix@aeiconsultants.com
Alt Email: vstatham@aeiconsultants.com Tele: 925-746-6050
Project Name/#: 373403
Project Location: 4300 Broadway Street, Oakland PO #135583
Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	Analysis Requested: VOCs by 8260	TPH-Ma (Heavy oil, g, mo	Hold
SB-2-7.5	6/23/17	0938	1	Soil	ICE			X
SB-2-9.5		0947						X
SB-2-11.5		0945						X
SB-2-13.5		0954				X	X	
SB-2-15.5		0955						X
SB-3-1.5		1057						X
SB-3-3.5		1055						X
SB-3-5.5 1104		~~1038~~ 1104						X
SB-3-7.5		1058						X
SB-3-9.5		1107						X

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
	6/23/17	1745		6/23/17	1745

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp _____ °C Initials _____

General COC

RUSH

MAI Work Order # 1706B91

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701

Telephone: (877) 252-9262 / Fax: (925) 252-9269

www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush | 2 Day Rush ● | 3 Day Rush | STD X | Quote #

J-Flag / MDL | ESL | Cleanup Approved | Bottle Order #

Delivery Format: GeoTracker EDF | PDF ● | EDD | Write On (DW) | EQuIS

Report To: AEI Consultants Bill To: AEI Consultants

Company: AEI Consultants

Email: whix@aeiconsultants.com

Alt Email: vstatham@aeiconsultants.com Tele: 925-746-6050

Project Name/#: 373403

Project Location: 4300 Broadway Street, Oakland PO #135583

Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	Analysis Requested: VOCs by 8260	9rd,mo TpH-Multirange, Hold
SB-1	6/23/17	1020	6	GW	HCl/ICE	X	X
SB-2		1043				X	X
SB-3		1031				X	X
SB-3-11.5		1105	1	Soil	ICE	X	X

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Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
	6/23/17	1745		6/23/17	1745

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp _____ °C Initials _____

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McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	**AEI Consultants**	Date and Time Received	**6/23/2017 17:45**
Project Name:	**373403; 4300 Broadway St., Oakland**	Date Logged:	**6/23/2017**
		Received by:	Kena Ponce
WorkOrder №:	**1706B91** Matrix: Soil/Water	Logged by:	Kena Ponce
Carrier:	Client Drop-In		

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐	
Chain of custody signed when relinquished and received?	Yes	☑	No	☐	
Chain of custody agrees with sample labels?	Yes	☑	No	☐	
Sample IDs noted by Client on COC?	Yes	☑	No	☐	
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐	
Sampler's name noted on COC?	Yes	☑	No	☐	

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	NA ☑
Shipping container/cooler in good condition?	Yes	☑	No	☐	
Samples in proper containers/bottles?	Yes	☑	No	☐	
Sample containers intact?	Yes	☑	No	☐	
Sufficient sample volume for indicated test?	Yes	☑	No	☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA ☐
Sample/Temp Blank temperature	Temp: 3.9°C				NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☑	No	☐	NA ☐
Sample labels checked for correct preservation?	Yes	☑	No	☐	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA ☑
Samples Received on Ice?	Yes	☑	No	☐	
	(Ice Type: WET ICE)				

UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes	☐	No	☐	NA ☑
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes	☐	No	☐	NA ☑

Comments:

ANALYTICAL REPORT

June 28, 2017

AEI Consultants - CA

Sample Delivery Group:	L918458
Samples Received:	06/24/2017
Project Number:	373403
Description:	

Report To: William Banker-Hix
2500 Camino Diablo
Walnut Creek, CA 94597

Entire Report Reviewed By:

Jason Romer
Technical Service Representative

TABLE OF CONTENTS

SS-1 L918458-01 Air

Collected by: William B Hix
Collected date/time: 06/23/17 14:14
Received date/time: 06/24/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method ASTM 1946	WG993139	1	06/27/17 09:24	06/27/17 09:24	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG992611	2	06/24/17 14:37	06/24/17 14:37	DWR

SS-2 L918458-02 Air

Collected by: William B Hix
Collected date/time: 06/23/17 14:58
Received date/time: 06/24/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method ASTM 1946	WG993139	1	06/27/17 09:52	06/27/17 09:52	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG992611	2	06/24/17 15:26	06/24/17 15:26	DWR
Volatile Organic Compounds (MS) by Method TO-15	WG992741	50	06/25/17 21:51	06/25/17 21:51	MJ

SS-3 L918458-03 Air

Collected by: William B Hix
Collected date/time: 06/23/17 14:36
Received date/time: 06/24/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method ASTM 1946	WG993139	5	06/27/17 10:29	06/27/17 10:29	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG992611	2	06/24/17 16:14	06/24/17 16:14	DWR
Volatile Organic Compounds (MS) by Method TO-15	WG992741	25	06/25/17 22:33	06/25/17 22:33	MJ

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Technical Service Representative

Volatile Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL ppb	Result ppb	Qualifier	Dilution	Batch
Helium	7440-59-7		100000	ND		1	WG993139

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	157	373	E	2	WG992611
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG992611
Benzene	71-43-2	78.10	0.400	1.28	1.16	3.71		2	WG992611
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG992611
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG992611
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG992611
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG992611
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG992611
Carbon disulfide	75-15-0	76.10	0.400	1.24	0.483	1.50		2	WG992611
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG992611
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG992611
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG992611
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG992611
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG992611
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG992611
Cyclohexane	110-82-7	84.20	0.400	1.38	5.03	17.3		2	WG992611
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG992611
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG992611
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG992611
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG992611
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG992611
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG992611
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG992611
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG992611
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG992611
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG992611
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG992611
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG992611
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG992611
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG992611
Ethanol	64-17-5	46.10	1.26	2.38	13.0	24.6		2	WG992611
Ethylbenzene	100-41-4	106	0.400	1.73	4.29	18.6		2	WG992611
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG992611
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG992611
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	ND	ND		2	WG992611
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG992611
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG992611
Heptane	142-82-5	100	0.400	1.64	1.86	7.62		2	WG992611
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG992611
n-Hexane	110-54-3	86.20	0.400	1.41	0.850	3.00		2	WG992611
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG992611
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG992611
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG992611
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	15.9	47.0		2	WG992611
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	3.82	15.6		2	WG992611
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG992611
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG992611
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG992611
2-Propanol	67-63-0	60.10	2.50	6.15	15.8	38.8		2	WG992611
Propene	115-07-1	42.10	0.800	1.38	3.99	6.87		2	WG992611

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Styrene	100-42-5	104	0.400	1.70	1.09	4.64		2	WG992611
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG992611
Tetrachloroethylene	127-18-4	166	0.400	2.72	0.997	6.77		2	WG992611
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	2.19	6.46		2	WG992611
Toluene	108-88-3	92.10	0.400	1.51	32.5	122		2	WG992611
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG992611
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	10.4	56.6		2	WG992611
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG992611
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG992611
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.784	3.85		2	WG992611
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG992611
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG992611
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG992611
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG992611
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG992611
m&p-Xylene	1330-20-7	106	0.800	3.47	5.51	23.9		2	WG992611
o-Xylene	95-47-6	106	0.400	1.73	1.35	5.83		2	WG992611
1,1-Difluoroethane	75-37-6	66.05	0.400	1.08	2.47	6.69		2	WG992611
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*93.8*				WG992611

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL ppb	Result ppb	Qualifier	Dilution	Batch
Helium	7440-59-7		100000	1600000		1	WG993139

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	62.5	149	574	1360		50	WG992741
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG992611
Benzene	71-43-2	78.10	0.400	1.28	2.82	9.01		2	WG992611
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG992611
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG992611
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG992611
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG992611
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG992611
Carbon disulfide	75-15-0	76.10	0.400	1.24	0.458	1.42		2	WG992611
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG992611
Chlorobenzene	108-90-7	113	0.400	1.85	2.17	10.0		2	WG992611
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG992611
Chloroform	67-66-3	119	0.400	1.95	9.28	45.2		2	WG992611
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG992611
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG992611
Cyclohexane	110-82-7	84.20	0.400	1.38	29.0	99.8		2	WG992611
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG992611
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG992611
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG992611
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG992611
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG992611
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG992611
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG992611
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG992611
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG992611
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG992611
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG992611
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG992611
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG992611
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG992611
Ethanol	64-17-5	46.10	1.26	2.38	50.7	95.7		2	WG992611
Ethylbenzene	100-41-4	106	10.0	43.4	256	1110		50	WG992741
4-Ethyltoluene	622-96-8	120	0.400	1.96	2.52	12.4		2	WG992611
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG992611
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	3.11	15.4		2	WG992611
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG992611
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG992611
Heptane	142-82-5	100	0.400	1.64	48.4	198		2	WG992611
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG992611
n-Hexane	110-54-3	86.20	0.400	1.41	4.95	17.4		2	WG992611
Isopropylbenzene	98-82-8	120.20	0.400	1.97	3.67	18.0		2	WG992611
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG992611
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG992611
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	11.6	34.3		2	WG992611
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	62.5	256	117	477		50	WG992741
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG992611
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG992611
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG992611
2-Propanol	67-63-0	60.10	62.5	154	138	339		50	WG992741
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG992611

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Styrene	100-42-5	104	0.400	1.70	46.6	198		2	WG992611
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	7.40	50.9		2	WG992611
Tetrachloroethylene	127-18-4	166	0.400	2.72	ND	ND		2	WG992611
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG992611
Toluene	108-88-3	92.10	10.0	37.7	874	3290		50	WG992741
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG992611
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	0.817	4.44		2	WG992611
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG992611
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG992611
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	7.59	37.3		2	WG992611
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	3.62	17.8		2	WG992611
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG992611
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG992611
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG992611
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG992611
m&p-Xylene	1330-20-7	106	20.0	86.7	787	3410		50	WG992741
o-Xylene	95-47-6	106	0.400	1.73	61.9	268		2	WG992611
1,1-Difluoroethane	75-37-6	66.05	0.400	1.08	ND	ND		2	WG992611
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.7*				WG992611
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*94.7*				WG992741

Volatile Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	Qualifier	Dilution	Batch
			ppb	ppb			
Helium	7440-59-7		500000	5030000		5	WG993139

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
Acetone	67-64-1	58.10	2.50	5.94	78.8	187		2	WG992611
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG992611
Benzene	71-43-2	78.10	0.400	1.28	1.95	6.23		2	WG992611
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG992611
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG992611
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG992611
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG992611
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG992611
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG992611
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG992611
Chlorobenzene	108-90-7	113	0.400	1.85	1.44	6.67		2	WG992611
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG992611
Chloroform	67-66-3	119	0.400	1.95	18.2	88.7		2	WG992611
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG992611
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG992611
Cyclohexane	110-82-7	84.20	0.400	1.38	10.7	36.8		2	WG992611
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG992611
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG992611
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG992611
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG992611
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG992611
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG992611
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG992611
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG992611
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG992611
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG992611
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG992611
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG992611
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG992611
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG992611
Ethanol	64-17-5	46.10	1.26	2.38	23.5	44.4		2	WG992611
Ethylbenzene	100-41-4	106	0.400	1.73	16.0	69.3		2	WG992611
4-Ethyltoluene	622-96-8	120	0.400	1.96	0.805	3.95		2	WG992611
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG992611
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.432	2.14		2	WG992611
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG992611
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG992611
Heptane	142-82-5	100	0.400	1.64	7.05	28.9		2	WG992611
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG992611
n-Hexane	110-54-3	86.20	0.400	1.41	0.884	3.12		2	WG992611
Isopropylbenzene	98-82-8	120.20	0.400	1.97	1.22	6.01		2	WG992611
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG992611
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG992611
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	11.1	32.6		2	WG992611
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	24.8	102		2	WG992611
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG992611
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG992611
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG992611
2-Propanol	67-63-0	60.10	2.50	6.15	11.1	27.3		2	WG992611
Propene	115-07-1	42.10	0.800	1.38	7.04	12.1		2	WG992611

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Styrene	100-42-5	104	0.400	1.70	42.0	179		2	WG992611
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG992611
Tetrachloroethylene	127-18-4	166	0.400	2.72	ND	ND		2	WG992611
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	0.779	2.30		2	WG992611
Toluene	108-88-3	92.10	5.00	18.8	178	671		25	WG992741
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG992611
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG992611
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG992611
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG992611
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	2.02	9.90		2	WG992611
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	1.19	5.83		2	WG992611
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG992611
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG992611
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG992611
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG992611
m&p-Xylene	1330-20-7	106	0.800	3.47	29.9	130		2	WG992611
o-Xylene	95-47-6	106	0.400	1.73	6.73	29.2		2	WG992611
1,1-Difluoroethane	75-37-6	66.05	0.400	1.08	1.34	3.62		2	WG992611
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*98.6*				WG992611
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*95.0*				WG992741

Method Blank (MB)

(MB) R3228982-3 06/27/17 09:01

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppb		ppb	ppb
Helium	U		30000	100000

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228982-1 06/27/17 08:23 • (LCSD) R3228982-2 06/27/17 08:39

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppb	ppb	ppb	%	%	%			%	%
Helium	500000	460000	479000	92.0	95.9	70.0-130			4.10	25

Method Blank (MB)

(MB) R3228504-3 06/24/17 11:22

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.0569	1.25
Allyl Chloride	U		0.0546	0.200
Benzene	U		0.0460	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0436	0.200
Bromoform	U		0.0786	0.600
Bromomethane	U		0.0609	0.200
1,3-Butadiene	U		0.0563	2.00
Carbon disulfide	U		0.0544	0.200
Carbon tetrachloride	U		0.0585	0.200
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.200
Chloroform	U		0.0574	0.200
Chloromethane	U		0.0544	0.200
2-Chlorotoluene	U		0.0605	0.200
Cyclohexane	U		0.0534	0.200
Dibromochloromethane	U		0.0494	0.200
1,2-Dibromoethane	U		0.0185	0.200
1,2-Dichlorobenzene	U		0.0603	0.200
1,3-Dichlorobenzene	U		0.0597	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0616	0.200
1,1-Dichloroethane	U		0.0514	0.200
1,1-Dichloroethene	U		0.0490	0.200
cis-1,2-Dichloroethene	U		0.0389	0.200
trans-1,2-Dichloroethene	U		0.0464	0.200
1,2-Dichloropropane	U		0.0599	0.200
cis-1,3-Dichloropropene	U		0.0588	0.200
trans-1,3-Dichloropropene	U		0.0435	0.200
1,4-Dioxane	U		0.0554	0.200
Ethylbenzene	U		0.0506	0.200
4-Ethyltoluene	U		0.0666	0.200
Trichlorofluoromethane	U		0.0673	0.200
Dichlorodifluoromethane	U		0.0601	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.200
1,2-Dichlorotetrafluoroethane	U		0.0458	0.200
Heptane	U		0.0626	0.200
Hexachloro-1,3-butadiene	U		0.0656	0.630
n-Hexane	U		0.0457	0.200
Isopropylbenzene	U		0.0563	0.200

Method Blank (MB)

(MB) R3228504-3 06/24/17 11:22

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Methylene Chloride	0.0712	J	0.0465	0.200
Methyl Butyl Ketone	U		0.0682	1.25
2-Butanone (MEK)	U		0.0493	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25
Methyl Methacrylate	U		0.0773	0.200
MTBE	U		0.0505	0.200
Naphthalene	0.342	J	0.154	0.630
2-Propanol	U		0.0882	1.25
Propene	U		0.0932	0.400
Styrene	U		0.0465	0.200
1,1,2,2-Tetrachloroethane	U		0.0576	0.200
Tetrachloroethylene	U		0.0497	0.200
Tetrahydrofuran	U		0.0508	0.200
Toluene	U		0.0499	0.200
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0665	0.200
1,1,2-Trichloroethane	U		0.0287	0.200
Trichloroethylene	U		0.0545	0.200
1,2,4-Trimethylbenzene	U		0.0483	0.200
1,3,5-Trimethylbenzene	U		0.0631	0.200
2,2,4-Trimethylpentane	U		0.0456	0.200
Vinyl chloride	U		0.0457	0.200
Vinyl Bromide	U		0.0727	0.200
Vinyl acetate	U		0.0639	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
Ethanol	U		0.0832	0.630
1,1-Difluoroethane	U		0.0256	0.200
(S) 1,4-Bromofluorobenzene	*92.1*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228504-1 06/24/17 09:43 • (LCSD) R3228504-2 06/24/17 10:32

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	3.53	3.49	94.2	93.1	52.0-158			1.17	25
Propene	3.75	3.61	3.60	96.2	96.1	54.0-155			0.120	25
Dichlorodifluoromethane	3.75	3.84	3.88	102	103	69.0-143			1.05	25
1,2-Dichlorotetrafluoroethane	3.75	3.97	3.97	106	106	70.0-130			0.0300	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228504-1 06/24/17 09:43 • (LCSD) R3228504-2 06/24/17 10:32

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloromethane	3.75	3.69	3.73	98.5	99.6	70.0-130			1.08	25
Vinyl chloride	3.75	3.87	3.92	103	105	70.0-130			1.22	25
1,3-Butadiene	3.75	3.67	3.68	97.9	98.2	70.0-130			0.390	25
Bromomethane	3.75	4.27	4.45	114	119	70.0-130			4.04	25
Chloroethane	3.75	4.08	4.21	109	112	70.0-130			3.11	25
Trichlorofluoromethane	3.75	4.04	4.12	108	110	70.0-130			1.86	25
1,1,2-Trichlorotrifluoroethane	3.75	4.15	4.22	111	113	70.0-130			1.73	25
1,1-Dichloroethene	3.75	3.88	3.96	103	106	70.0-130			1.94	25
1,1-Dichloroethane	3.75	3.92	3.99	105	106	70.0-130			1.80	25
Acetone	3.75	3.82	3.84	102	102	70.0-130			0.510	25
2-Propanol	3.75	4.05	4.06	108	108	66.0-150			0.190	25
Carbon disulfide	3.75	4.00	4.08	107	109	70.0-130			2.14	25
Methylene Chloride	3.75	3.53	3.55	94.1	94.7	70.0-130			0.680	25
MTBE	3.75	4.06	4.11	108	110	70.0-130			1.07	25
trans-1,2-Dichloroethene	3.75	4.09	4.16	109	111	70.0-130			1.60	25
n-Hexane	3.75	3.91	3.96	104	106	70.0-130			1.36	25
Vinyl acetate	3.75	3.96	3.98	106	106	70.0-130			0.660	25
Methyl Ethyl Ketone	3.75	3.95	4.04	105	108	70.0-130			2.32	25
cis-1,2-Dichloroethene	3.75	3.95	3.99	105	106	70.0-130			0.990	25
Chloroform	3.75	4.00	4.06	107	108	70.0-130			1.53	25
Cyclohexane	3.75	4.09	4.11	109	110	70.0-130			0.690	25
1,1,1-Trichloroethane	3.75	3.98	4.05	106	108	70.0-130			1.72	25
Carbon tetrachloride	3.75	4.06	4.12	108	110	70.0-130			1.39	25
Benzene	3.75	4.03	4.10	108	109	70.0-130			1.77	25
1,2-Dichloroethane	3.75	3.85	3.89	103	104	70.0-130			1.11	25
Heptane	3.75	3.82	3.85	102	103	70.0-130			0.590	25
Trichloroethylene	3.75	4.09	4.14	109	110	70.0-130			1.10	25
1,2-Dichloropropane	3.75	3.97	4.02	106	107	70.0-130			1.24	25
1,4-Dioxane	3.75	4.25	4.28	113	114	70.0-152			0.490	25
Bromodichloromethane	3.75	4.06	4.12	108	110	70.0-130			1.41	25
cis-1,3-Dichloropropene	3.75	4.12	4.14	110	110	70.0-130			0.510	25
4-Methyl-2-pentanone (MIBK)	3.75	4.08	4.10	109	109	70.0-142			0.300	25
Toluene	3.75	4.09	4.15	109	111	70.0-130			1.26	25
trans-1,3-Dichloropropene	3.75	4.08	4.08	109	109	70.0-130			0.0100	25
1,1,2-Trichloroethane	3.75	4.09	4.08	109	109	70.0-130			0.250	25
Tetrachloroethylene	3.75	4.12	4.19	110	112	70.0-130			1.60	25
Methyl Butyl Ketone	3.75	4.09	4.09	109	109	70.0-150			0.140	25
Dibromochloromethane	3.75	4.18	4.19	111	112	70.0-130			0.310	25
1,2-Dibromoethane	3.75	4.19	4.19	112	112	70.0-130			0.0300	25
Chlorobenzene	3.75	3.98	3.97	106	106	70.0-130			0.170	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228504-1 06/24/17 09:43 • (LCSD) R3228504-2 06/24/17 10:32

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	3.75	4.05	4.14	108	110	70.0-130			2.09	25
m&p-Xylene	7.50	7.77	7.90	104	105	70.0-130			1.72	25
o-Xylene	3.75	3.91	3.97	104	106	70.0-130			1.47	25
Styrene	3.75	4.08	4.12	109	110	70.0-130			0.980	25
Bromoform	3.75	4.14	4.14	110	110	70.0-130			0.170	25
1,1,2,2-Tetrachloroethane	3.75	3.74	3.81	99.7	102	70.0-130			1.99	25
4-Ethyltoluene	3.75	3.73	3.76	99.5	100	70.0-130			0.760	25
1,3,5-Trimethylbenzene	3.75	3.70	3.76	98.6	100	70.0-130			1.71	25
1,2,4-Trimethylbenzene	3.75	3.70	3.72	98.7	99.1	70.0-130			0.410	25
1,3-Dichlorobenzene	3.75	3.64	3.75	97.2	100	70.0-130			2.82	25
1,4-Dichlorobenzene	3.75	3.65	3.68	97.3	98.0	70.0-130			0.730	25
Benzyl Chloride	3.75	4.07	4.02	109	107	70.0-144			1.27	25
1,2-Dichlorobenzene	3.75	3.46	3.46	92.1	92.4	70.0-130			0.270	25
1,2,4-Trichlorobenzene	3.75	4.66	4.58	124	122	70.0-155			1.73	25
Hexachloro-1,3-butadiene	3.75	3.59	3.55	95.8	94.6	70.0-145			1.34	25
Naphthalene	3.75	5.17	5.12	138	136	70.0-155			1.07	25
Allyl Chloride	3.75	3.83	3.85	102	103	70.0-130			0.590	25
2-Chlorotoluene	3.75	3.37	3.46	89.9	92.3	70.0-130			2.62	25
Methyl Methacrylate	3.75	4.28	4.24	114	113	70.0-130			0.980	25
Tetrahydrofuran	3.75	3.77	3.77	101	101	70.0-140			0.0600	25
2,2,4-Trimethylpentane	3.75	3.95	3.99	105	106	70.0-130			0.960	25
Vinyl Bromide	3.75	4.28	4.41	114	118	70.0-130			2.90	25
Isopropylbenzene	3.75	3.78	3.83	101	102	70.0-130			1.51	25
1,1-Difluoroethane	3.75	3.85	3.84	103	103	70.0-130			0.0800	25
(S) 1,4-Bromofluorobenzene				*94.3*	*93.5*	*60.0-140*				

Method Blank (MB)

(MB) R3228621-2 06/25/17 09:08

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.0569	1.25
Ethylbenzene	U		0.0506	0.200
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25
2-Propanol	U		0.0882	1.25
Toluene	U		0.0499	0.200
m&p-Xylene	U		0.0946	0.400
(S) 1,4-Bromofluorobenzene	*94.2*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228621-1 06/25/17 08:22 • (LCSD) R3228621-3 06/25/17 09:51

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	3.75	4.24	4.28	113	114	70.0-130			1.05	25
2-Propanol	3.75	4.22	4.31	113	115	66.0-150			2.08	25
4-Methyl-2-pentanone (MIBK)	3.75	4.45	4.61	119	123	70.0-142			3.56	25
Toluene	3.75	4.47	4.58	119	122	70.0-130			2.36	25
Ethylbenzene	3.75	4.46	4.67	119	125	70.0-130			4.61	25
m&p-Xylene	7.50	9.19	9.46	123	126	70.0-130			2.92	25
(S) 1,4-Bromofluorobenzene				*96.7*	*98.5*	*60.0-140*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

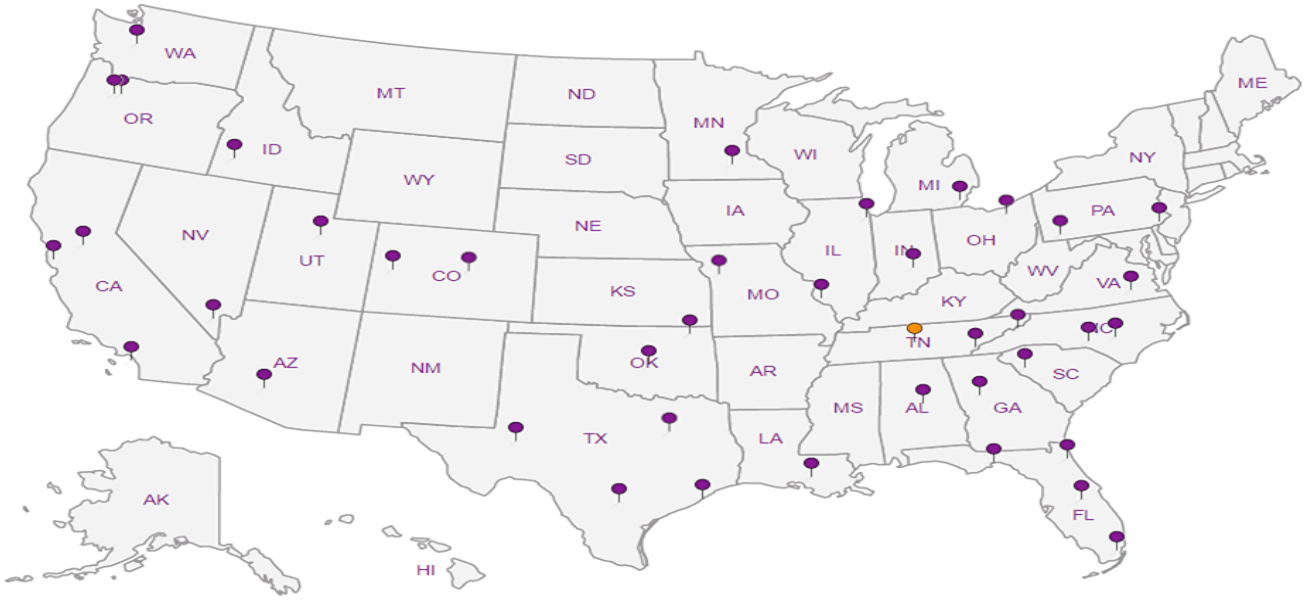
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Chain of Custody Page ___

ESC LABS
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Fax: 615-758-5859

L# 910458
M161

Acctnum: AEICONWCCA
Template: T124890
Prelogin: P606599
TSR: 110 - Brian Ford
PB: IL 6/16
Shipped Via: FedEx Saver

AEI Consultants - CA
2500 Camino Diablo
Walnut Creek, CA 94597

Billing Information:
Accounts Payable- Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Pres Chk

Report to: William Banker-Hix
Email To: whix@aeiconsultants.com

Project Description:
City/State Collected: Oakland, C.A.

Phone: 925-746-6028
Fax:
Client Project # 373963
Lab Project # AEICONWCCA-HIX

Collected by (print): William B Hix
Site/Facility ID #
P.O. # 1435648

Collected by (signature):
Immediately Packed on Ice N ___ Y ___
Quote #

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
X Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed: FOB 7 days

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TO-15 Summa	Helium	Remarks	Sample # (lab only)
SS-1		Air	Subslab	6/23/17	1414	1	X		-27.5/-5.0	01
SS-2		Air			1458	1	X		-30"/-5.0	02
SS-3		Air			1436	1	X		-29.0/-5.0	03
		Air				1	X			

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: (4)1Liter summas, (4)200cc/min dual gauge manifold, (4) tubing and fittings, (1) 6Liter summa

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __UPS __FedEx __Courier __ _____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Trip Blank Received: Yes / No HCL / MeoH TBR

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	6/23	1650	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Temp: 0 °C Bottles Received: 3
Date: 6-24-17 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK