FOCUSED SUBSURFACE SITE INVESTIGATION (FSSI)

22-01/19 QUEENS PLAZA NORTH
QUEENS, NEW YORK 11101

PREPARED FOR

NEW YORK COMMUNITY BANK

FEBRUARY 2019

MECC PROJECT NO. M17702A

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FOCUSED SUBSURFACE SITE INVESTIGATION (FSSI)

22-01 TO 22-19 QUEENS PLAZA NORTH
LONG ISLAND CITY, NEW YORK 11101

PREPARED FOR

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SIGNATURE PAGE

Merritt Environmental Consulting Corp. ("MECC") and the undersigned have completed this Focused Subsurface Site Investigation (the "FSSI") at 22-01 to 22-19 Queens Plaza North, Long Island City, New York (the "Site") in accordance with the scope of work defined in MECC's submitted proposal. This project conducted for environmental due diligence purposes using generally accepted industry practice.

MERRITT ENVIRONMENTAL CONSULTING CORP.

Frank Galdun
Project Geologist

Charles G. Merritt
President/LEED AP

1.0 INTRODUCTION AND SUMMARY OF FINDINGS

This report presents the results of the FSSI conducted by MECC at the Site, which consists of an approximately 111,000 square-foot parcel. The south section of the Site contains a partial one-story and partial two-story commercial/industrial building and the remaining section is open stockyard used by a construction equipment rental company. MECC understands that this study is intended for use as an environmental due diligence instrument.

The principal intent of this study was to establish subsurface soil and groundwater quality beneath the Site in connection with the potential of elevated concentrations of chlorinated volatile organic compounds (VOCs). The Site has been used for industrial purposes and underground petroleum fuel storage tanks (USTs) were historically present. In addition, a New York State Hazardous Waste Site (SHWS) with documented chlorinated VOC contamination in groundwater is proximal to the Site. A series of soil borings were installed and soil and groundwater samples were collected for laboratory analysis.

MECC installed ten (10) soil borings at various locations within the Site building and at the exterior stockyard. Depth to the water table at the Site is between eight feet and ten feet below ground surface (bgs). Grab soil samples and groundwater samples were collected from all borings. Laboratory analysis of groundwater samples show a low to moderate degree of adverse impact to Site groundwater quality by petroleum fuel-related VOCs in a minor number of locations. This condition was caused by leaking USTs and associated dispensers formerly located in the stockyard. MECC concludes that this impacted groundwater and leaking USTs is related to an unresolved petroleum release case under the authority of the New York State Department of Environmental observation (NYSDEC). This petroleum release incident was reported to NYSDEC in 2013 when the USTs and dispensers were removed. No free-phase product was identified on the shallow water table and contaminant concentrations reported by the laboratory do not greatly exceed regulatory limits.

Based on MECC's review of regulatory agency records pertaining to the petroleum release, it does not appear that all contaminated soil was removed from the UST/dispenser excavation in 2013, when work was apparently discontinued by the Site owner. Further, MECC's review of NYSDEC records identified no documentation of proper off-site disposal of any excavated petroleum-contaminated soil. The risk of an extended period to gain case closure with NYSDEC does exist, and they may require further investigation to determine the severity and extent of any remaining impacted and unexcavated soil. If the Site is proposed for redevelopment and excavation work is planned, this activity will serve to expedite efforts to gain case closure since any contaminated material could be addressed at that time.

Perchloroethylene (PCE, a chlorinated VOC) was detected at low concentrations in certain groundwater samples collected from across the Site. This substance was detected in a single groundwater sample at a concentration that slightly exceeds the applicable regulatory limit of 5.0 micrograms per liter (ug/l); this exceedance was reported at 6.0 ug/l in one of the samples collected from beneath the stockyard. None of the remaining groundwater samples were reported to contain PCE or any other chlorinated VOC at concentrations exceeding applicable regulatory limits. None of this laboratory data is indicative of an actionable or reportable condition in connection with the detected presence of chlorinated VOCs in groundwater at the Site. Further, none of the soil samples collected from the Site are reported by the laboratory to contain PCE or other chlorinated VOCs at concentrations that approach applicable regulatory limits.

MECC selected seven of the ten collected soil samples for laboratory analysis under various parameters to evaluate fill quality beneath the Site. A minor number of heavy metals and semi-volatile organic compounds (SVOCs) were detected in certain of these samples at concentrations that slightly exceed the most stringent soil quality limits established by the State of New York. MECC does not consider the presence of these substances as a material threat of adverse impact to the environmental integrity at the Site because they are common constituents of typical urban fill and do not represent a reportable or

actionable release of contaminants to the environment. Should the material be excavated and require off-site disposal by future redevelopment and/or building modification, additional costs for special disposal as nonhazardous urban fill will be incurred should excess material be generated.

MECC has identified no potential of a VOC vapor intrusion condition at the Site. However, the Site is located in an area that has been historically used for industrial purposes in a heavily urbanized setting. If the Site is to be redeveloped to contain new buildings, MECC strongly recommends that, at a minimum, a sub-slab soil vapor barrier, specifically designed to minimize the potential of volatile organic vapor intrusion into structures should be installed as a precautionary measure.

1.1 Background

Please note that delays in field activities were encountered due to lack of initial access into the Site building. MECC was not initially informed that much of the Site building was unoccupied; access to the interior of the vacant building section was not provided until the later portion of the field work. Further, the Site stockyard is near full of construction equipment and Site tenant representatives were not informed of the scope of MECC's field work. Delays did occur since waiting periods were incurred to allow for tenant activities to be completed at planned work areas.

The Site consists of an approximately 111,000- square-foot parcel containing a partial one-story and partial two-story industrial/commercial building at its south end. The Site occupies the entire city block bordered by 41st Avenue to the north, 23rd Street to the east, Queens Plaza North to the south and 22nd Street to the west. The footprint of the Site building is approximately 45,000 square feet; the remainder of the Site is exterior paved stockyard. One small and unoccupied steel-frame storage building is located at the northeast corner of the Site. The apparent sole Site occupant consists of a construction equipment rental operation. This tenant occupies the majority of the exterior stockyard, which contains stored heavy equipment and materials. This tenant also occupies the single-story section of the Site building. The two-story Site building section is not occupied. A small partial basement is present under the east side of the Site building; no other sub-grade levels exist. Site building construction consists of masonry exterior walls over steel frame and a flat roof. Site building heating systems appear to be fueled by natural gas.

A recently completed phase I environmental site assessment (ESA) states that five (5) 4,000-gallon diesel fuel and gasoline USTs, along with associated dispensers, were formerly present under the Site stockyard. Based on information contained in regulatory agency databases included with the ESA, it appears that soil and groundwater at the UST/dispenser area was discovered as early as 1997. NYSDEC records received by MECC show that a groundwater remediation system was proposed at the Site to address the petroleum contamination; it does not appear that the remediation system operated for an extended period. Nevertheless, all historical petroleum spill and Leaking Storage Tank (LTANK) incidents reported to regulators were formally "closed" by NYSDEC with "no further action required" determinations.

The most recently dated document pertaining to subsurface conditions at the former UST/dispenser area (obtained from NYSDEC files) describes a 2010 groundwater monitoring well sampling and laboratory analysis event. This document states that selected monitoring wells were sampled and that laboratory analysis detected no petroleum fuel-related VOCs at concentrations that exceed applicable regulatory limits. This 2010 document recommends no further action at the Site. However, it appears that this document was prepared to address a historical unresolved NYSDEC spill incident, which has been formally closed by NYSDEC.

It does not appear that the gasoline and diesel USTs/dispensers were removed until 2013, although it is possible that the UST system may have been present but inactive prior to this time. Evidence of petroleum contamination was reported to NYSDEC in 2013, and this petroleum spill incident remains unresolved (NYSDEC Spill Case No. 1301128). Records of communication between the Site owner and NYSDEC appear to show that work on contaminated soil removal was not completed. Based on the reviewed documents, it appears that petroleum-contaminated soil could remain at the former fuel dispenser area, which could not be accessed by MECC due to the large amounts of stocked equipment at the Site, although MECC's groundwater sampling and laboratory analysis does show that low-level contamination does exist. Further, it appears that petroleum-impacted soil that was excavated during UST removal work was present in a stockpile at the Site, but no record of proper off-site disposal of this material is included in NYSDEC records.

The ESA also states that physical evidence of a possible abandoned heating oil UST was observed at the Site building. It appears that the UST is likely located to be present at some location under the building floor slab near the partial basement at the east side of the Site. Due to access and time constraints, a more thorough assessment of this UST area was not conducted. However, interior soil borings installed by MECC within the Site building encountered no condition evidencing actionable impact on Site soil or groundwater by a possible heating oil release.

Numerous groundwater monitoring wells were observed in the Site stockyard and proximal to the former UST/dispenser area. Three of these flush-mount well covers were visible and were removed. MECC observed that all wells had been permanently sealed with concrete. Additional well covers are likely present but are covered by stored heavy equipment and other construction-related products. One well was observed in the sidewalk bordering the Site at 22nd Street (west side of the Site), but it was entirely destroyed. The only remaining viable groundwater monitoring well was found in the 23rd Street sidewalk adjacent to the northeast corner of the Site (labeled as "MWA" by MECC on the attached site sketch). MECC collected a groundwater sample from this well for laboratory analysis. It does not appear that this well was installed in response to the petroleum release at the Site, as it is located well away from the former UST system, at a hydraulic upgradient position. It is more likely that the well was installed to investigate a possible off-site source of contamination, and its installation was unrelated to any past Site investigations.

1.2 Topography and Geology

The Site elevation is estimated at roughly 20 feet above mean sea level (see topographic map in Appendix A). Surface topography within the Site is flat with little apparent relief. A rise in surface elevation occurs at areas east-northeast of the Site. This FSSI identified the water table aquifer at depths ranging from eight feet to ten feet bgs. Water table elevation isopleths on published maps and prior Site-specific reports reviewed by MECC show that groundwater flow direction is roughly to the west.

Naturally occurring sediment beneath the Site was found to consist of medium to fine sand with some intervening layers of silt and clay. Fill material is present under the stockyard and ranges in thickness from five feet to, in some cases, ten feet bgs. This material had varying content but primarily included sand, broken rock and crushed brick with some ash and cinder. A much thinner layer of fill material was encountered in borings installed into the Site building footprint.

2.0 FSSI SCOPE OF WORK COMPLETED

MECC retained a drilling contractor to employ a track-mounted hydraulic direct-push drill rig to install ten (10) soil borings at the Site. Mr. Frank Galdun, Project Geologist with MECC was present to direct the driller and to conduct both soil and groundwater sample collection and assessment tasks. All field work was completed on February 7, 2019 and February 8, 2019. Seven (7) soil borings were installed into the exterior stockyard and three (3) borings were placed inside the Site building. All borings were converted to temporary well points for groundwater sampling purposes. Grab soil samples were collected for laboratory analysis from above the water table from all borings.

The maximum depth of the borings was 15 feet bgs. The water table was encountered between approximately eight feet and ten feet bgs. A Site Location Map and Site Plan are provided in Appendix A of this report. Soil samples were collected for laboratory analysis from all borings. The primary area of concern investigated by this study was the potential presence of chlorinated VOCs from either off-site or on-site sources. This FSSI also included an evaluation of the former UST and dispenser area, although access to this area was limited by Site conditions and activities.

3.0 SOIL SAMPLE COLLECTION AND LABORATORY RESULTS

3.1 Soil Quality Field Screening Results

Continuous soil samples were collected for field screening at all of the borings. All soil samples were evaluated for visual or olfactory evidence of contamination. A portable photoionization detector (PID) was used to measure volatile organic vapor levels in each soil sample. Observations and lithologic descriptions for each soil boring are presented in Appendix B.

For the hydraulic direct-push borings, a five-foot plastic sleeve was inserted into each hollow drill rod and was driven into the subsurface. The sleeves are removed from the rods as they are extracted from the soil borings. Soil quality evaluation and soil sampling is conducted by cutting the sleeves longitudinally, exposing the collected soil.

MECC detected no odors or unusual staining in any of the soil samples extracted from the borings. In addition, PID responses were recorded as trace or undetect in all borings. The results of the field screening activities identified no evidence of VOC contamination in soil. However, MECC did identify physical evidence of petroleum, contamination on groundwater and in soil in contact with groundwater at Soil Boring Nos. B2 and B3. Both of these borings were placed at estimated hydraulic downgradient positions relative to the former UST and dispenser areas. A moderate petroleum sheen was observed on groundwater extracted from these borings; this water exhibited what was apparently a diesel fuel odor.

3.2 Soil Sample Analysis Results

MECC collected one grab soil sample from each of the ten borings for laboratory analysis (total ten samples). Sample identifications on the laboratory report in Appendix C show the soil boring and depth of sample collection. Generally, the soil samples were collected from depths of five feet bgs or less to evaluate near-surface soil and fill quality.

MECC submitted all soil and groundwater samples collected during this study to Veritech, a New York State Department of Health-Certified environmental laboratory (NYSDOH ELAP No. 10982). MECC placed all samples collected during this study in containers holding the appropriate preservatives. The laboratory supplied all sample containers used by MECC. All samples were shipped on ice to Veritech within one business day of collection. In addition, MECC completed all appropriate chain of custody documents prior to sample shipment.

All soil samples were analyzed under EPA Method 8260 - VOCs and Table 1 on the following page summarizes these results.

TABLE 1: VOC LABORATORY RESULTS FOR SOIL SAMPLES
Detected compounds only

Compound	Sample Location and Depth										UUSCO
	B1 5'	B2 3'-5'	B3 6'	B4 5.5'-6.5'	B5 4.5'-6.5'	B6 4'-5'	B7 7'-8'	B8 5'-6'	B9 5'	B10 2'-3'	
Acetone	0.018	ND	ND	0.011	ND	ND	ND	ND	0.013	ND	0.05
Toluene	0.0013	ND	ND	0.0015	ND	ND	ND	0.0021	ND	ND	0.7
Naphthalene	ND	ND	ND	ND	ND	0.019	ND	ND	ND	ND	12
Xylenes	ND	ND	ND	ND	ND	ND	ND	0.0011	ND	ND	0.26
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.05
Perchloroethylene	ND	ND	ND	0.024	ND	ND	ND	ND	ND	ND	1.3

NOTES

1. **All results are expressed in milligrams per kilogram (mg/kg), which can also be expressed as parts per million (ppm).**
2. **ND - Parameter non-detected, below method detection limits.**
3. **Results in bold exceed Unrestricted Use Soil Cleanup Objectives as defined in the New York State Department of Environmental Conservation (NYSDEC), Division of Environmental Remediation, 6 NYCRR Part 375, Environmental Remediation Programs, dated December 14, 2006. For those VOCs not listed in Unrestricted Use SCOs, the Supplemental Soil Cleanup Objectives (Residential) listed in NYSDEC Policy CP-51 / Soil Cleanup Guidance, dated October 21, 2010 was used.**

No VOCs were detected at concentrations that approach Unrestricted Use SCOs in any of the soil samples. While NYSDEC has established less restrictive soil quality standards based on non-residential use, the Unrestricted Use SCOs are commonly employed as the default when conducting due diligence investigations.

In order to principally assess shallow fill quality beneath the Site, seven of the grab soil samples were selected for laboratory analysis under EPA Method 8270: Semi-Volatile Organic Compounds (SVOCs). Certain SVOCs were detected and Table 2 on the following page summarizes the laboratory report.

TABLE 2: SVOC LABORATORY RESULTS FOR SOIL SAMPLES
Detected compounds only

Compound	Sample Location and Depth							SCO	
	B2 3'-5'	B4 4.5'-5.5'	B5 4.5'-5.5'	B6 4'-5'	B7 7'-8'	B8 5'-6'	B10 2'-3'		
Acenaphthene	ND	0.051	0.21	2.5	ND	ND	ND	20	
Acenaphthylene	0.061	0.053	0.089	ND	ND	0.1	ND	100	
Anthracene	0.076	0.13	0.46	6.2	0.053	0.11	ND	100	
Benzo[a]anthracene	0.45	0.53	**1.4**	**24**	0.15	0.47	0.05	1.0	1
Benzo[a]pyrene	0.34	0.51	**1.3**	**17**	0.12	0.37	0.045	1.0	1
Benzo[b]fluoranthene	0.5	0.069	**1.7**	**21**	0.18	0.45	0.058	1.0	1
Benzo[g,h,i]perylene	0.17	0.32	0.74	8.5	0.085	0.24	ND	100	
Benzo[k]fluoranthene	0.2	0.23	0.66	**6.3**	0.054	0.16	ND	0.8	3.9
Chrysene	0.43	0.53	**1.4**	**22**	0.14	0.46	0.048	1.0	3.9
Dibenzo[a,h]anthracene	ND	0.087	0.22	**2.6**	ND	0.076	ND	0.33	0.33
Fluoranthene	0.84	1.0	3.2	40	0.3	0.61	0.086	100	
Fluorene	ND	0.042	0.18	2.1	ND	ND	ND	30	
Indeno[1,2,3-cd]pyrene	0.17	0.29	**0.69**	**7.6**	0.076	0.2	ND	0.5	0.5
Naphthalene	ND	0.018	0.11	ND	ND	0.04	ND	12	
Phenanthrene	0.33	0.66	2.6	36	0.25	0.43	0.072	100	
Pyrene	0.73	1.0	3.1	54	0.32	0.83	0.1	100	

NOTES

1. **All results are expressed in milligrams per kilogram (mg/kg), which can also be expressed as parts per million (ppm).**
2. **ND - Parameter non-detected, below method detection limits.**
3. **Results in bold exceed Unrestricted Use Soil Cleanup Objectives as defined in the New York State Department of Environmental Conservation (NYSDEC), Division of Environmental Remediation, 6 NYCRR Part 375, Environmental Remediation Programs, dated December 14, 2006.**

Low-level impact by SVOCs typical of the content of urban fill material is evidenced in Sample Nos. B5 4'-5' and B6 4'-5' in Table 2. This condition is not considered unusual by MECC and neither of these borings were placed near the former UST/dispenser area. Further, no physical evidence of petroleum contamination was identified in any of the soil samples extracted from these borings. Accordingly, MECC believes that the elevated SVOC content in the two soil samples is representative of common urban fill.

In order to further evaluate shallow fill quality, the seven selected soil samples were also analyzed at the laboratory for Target Analyte List Heavy Metals (TAL Metals). Table 3 on the following page summarizes the laboratory report.

TABLE 3: TAL METAL LABORATORY RESULTS FOR SOIL SAMPLES

Compound	Sample Location and Depth							SCO
	B2 3'-5'	B4 4.5'-5.5'	B5 4.5'-5.5'	B6 4'-5'	B7 7'-8'	B8 5'-6'	B10 2'-3'	
Aluminum	7000	14000	13000	13000	9100	11000	18000	No SCO
Arsenic	2.5	2.0	16	4.6	4.9	3.6	5.7	13 16
Barium	50	90	**1600**	180	170	**1100**	42	350 400
Calcium	30000	4000	15000	83000	8900	24000	1700	No SCO
Chromium	8.5	28	**48**	19	22	**53**	30	30
Cobalt	ND	7.4	6.7	5.2	10	5.8	8.9	30
Copper	ND	30	**280**	**97**	50	**270**	17	50 270
Cyanide	ND	ND	0.53	ND	ND	2.0	ND	27 27
Iron	7400	21000	20000	14000	25000	19000	24000	No SCO
Lead	42	**140**	**3100**	**250**	**190**	**910**	21	63 400
Magnesium	4800	3400	3700	8100	3900	3700	3400	No SCO
Manganese	170	250	520	400	390	400	210	1600 2000
Nickel	ND	19	25	15	29	21	ND	30 310
Potassium	630	840	1100	1700	3300	2400	960	No SCO
Thallium	ND	ND	ND	ND	ND	ND	ND	No SCO
Sodium	670	ND	ND	660	ND	ND	ND	No SCO
Vanadium	12	29	33	27	32	33	34	100
Zinc	33	100	**1300**	**130**	**140**	**500**	73	109 10,000
Antimony	ND	ND	ND	ND	ND	ND	ND	No SCO
Beryllium	0.31	ND	0.51	ND	0.27	ND	ND	7.2 72
Cadmium	ND	ND	2.0	ND	ND	2.2	ND	2.5 4.3
Silver	ND	ND	0.66	ND	ND	ND	ND	2 180
Selenium	ND	ND	ND	ND	ND	ND	ND	No SCO
Mercury	ND	0.11	**1.4**	**0.27**	ND	ND	ND	0.18 0.81

NOTES

1. **All results are expressed in milligrams per kilogram (mg/kg), which can also be expressed as parts per million (ppm).**
2. **ND - Parameter non-detected, below method detection limits.**
3. **Results in bold exceed Unrestricted Use Soil Cleanup Objectives as defined in the New York State Department of Environmental Conservation (NYSDEC), Division of Environmental Remediation, 6 NYCRR Part 375, Environmental Remediation Programs, dated December 14, 2006. For those TAL Metals not listed in Unrestricted Use SCOs, the Supplemental Soil Cleanup Objectives (Residential) listed in NYSDEC Policy CP-51 / Soil Cleanup Guidance, dated October 21, 2010 was used.**

As shown in the table, several TAL Metals were detected in the samples above the Unrestricted Use SCOs and will cause an increase in the cost for soil disposal during any future building modification. However, none of these results are considered by MECC to be uncommon in connection with the composition of typical urban fill material and do not represent an actionable or reportable condition. Significantly, no elevated TAL Metals concentrations were detected in B10 2'-3'; B10 was installed inside the Site building and the laboratory analytical data does generally confirm that little or no fill exists under the structure.

The seven selected soil samples were also analyzed for polychlorinated biphenyls (PCBs) as an additional means of evaluating fill quality. Table 4 on the following page summarizes the laboratory report.

TABLE 4: PCB LABORATORY RESULTS FOR SOIL SAMPLES
Detected compounds only

	Sample Location and Depth							
Compound	B2 3'-5'	B4 4.5'-5.5'	B5 4.5'-5.5'	B6 4'-5'	B7 7'-8'	B8 5'-6'	B10 2'-3'	SCO
PCBs	0.039	ND	ND	ND	ND	0.029	ND	0.1

NOTES

1. **All results are expressed in milligrams per kilogram (mg/kg), which can also be expressed as parts per million (ppm).**
2. **ND - Parameter non-detected, below method detection limits.**
3. **Results in bold exceed Unrestricted Use Soil Cleanup Objectives as defined in the New York State Department of Environmental Conservation (NYSDEC), Division of Environmental Remediation, 6 NYCRR Part 375, Environmental Remediation Programs, dated December 14, 2006**

No PCBs were detected in any of the samples at concentrations that approach the Unrestricted Use SCO.

4.0 GROUNDWATER SAMPLE COLLECTION AND LABORATORY RESULTS

MECC collected one (1) groundwater sample from each of the ten (10) borings. All groundwater samples were analyzed at Veritech under EPA Method 8260: VOCs.

The hydraulic direct push samples were collected by inserting dedicated one-inch diameter slotted well screen topped with un-slotted riser to surface. The well screen at each boring was ten feet in length and extended to 15 feet bgs. Water was withdrawn from each temporary well point using dedicated, disposable flexible tubing that had been pushed through the screen. The tube was attached to a peristaltic pump and the water was withdrawn and placed into the appropriate sample containers. MECC also conducted depth to water measurements at each well before sampling activities. Low flow sampling procedures were also conducted.

The groundwater monitoring well located in the sidewalk near the northeast corner of the Site is designated by MECC as MWA. This well is constructed of one-inch PVC tubing and extends to 15.3 feet bgs. Depth to water in MWA was measured at 8.95 feet bgs. Water sampling was conducted in the same manner as that employed for groundwater sampling at the temporary well points.

4.1 Groundwater Sample Analysis Results

All four groundwater samples were analyzed for VOCs and Table 5 provides a summary of laboratory analysis.

TABLE 5: VOC LABORATORY RESULTS FOR GROUNDWATER SAMPLES
Detected compounds only

Compound	Sample Location											Standard
	MWA	B1GW	B2GW	B3GW	B4GW	B5GW	B6GW	B7GW	B8GW	B9GW	B10GW	
1,3,5-Trimethylbenzene	ND	ND	1.9	1.8	ND	ND	ND	ND	ND	ND	ND	5
1,2,4-Trimethylbenzene	ND	ND	ND	**5.7**	ND	ND	ND	ND	ND	ND	ND	5
Benzene	ND	ND	**2.7**	ND	ND	ND	ND	ND	ND	ND	ND	0.7 1
Ethylbenzene	ND	ND	2.9	2.7	ND	ND	ND	ND	ND	ND	ND	5
Isopropylbenzene	ND	ND	**28**	8.3	ND	ND	ND	ND	ND	ND	ND	5
Xylenes	ND	ND	**11**	**11**	ND	ND	ND	ND	ND	ND	ND	5
Naphthalene	ND	ND	9.3	10	ND	ND	1.3	ND	**11**	ND	ND	10
n-Butylbenzene	ND	ND	**16**	**12**	ND	ND	ND	ND	ND	ND	ND	5
n-Propylbenzene	ND	ND	**47**	**24**	ND	ND	ND	ND	ND	ND	ND	5
sec-Butylbenzene	ND	ND	**5.7**	**32**	ND	ND	ND	ND	ND	ND	ND	5
Toluene	ND	ND	2.4	ND	ND	ND	ND	ND	ND	ND	ND	5
Chlorobenzene	ND	ND	1.8	ND	ND	ND	ND	ND	ND	ND	ND	5
1,4-Dichlorobenzene	ND	ND	ND	ND	4.7	ND	ND	ND	ND	ND	ND	5 3
Perchloroethylene	ND	ND	2.5	ND	**6.0**	ND	2.2	ND	ND	4.1	4.1	5
Total VOCs	0.0	0.0	119	107.5	10.7	0.0	3.3	0.0	11	4.1	4.1	

NOTES
1. **Results expressed in micrograms per liter (ug/l), which can also be expressed as parts per billion (ppb).**
2. **Any result in bold exceeds New York State Department of Health Maximum Contaminant Level for drinking water, and the guidance values or standard listed in the NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values.**
3. **ND: Parameter non-detected, below method detection limits.**

As shown, petroleum fuel-related VOCs were detected at elevated concentrations in B2GW and in B3GW. Both of these borings were placed at estimated hydraulic downgradient positions relative to the former UST and dispenser area. While exceedances of regulatory standards are shown, MECC believes that this condition represents a moderate degree of impact on groundwater quality. However, it is likely that NYSDEC will require further investigation of soil and groundwater quality at the former UST/dispenser area in connection with Spill Case No. 1301128.

Significantly, no VOCs were detected in MWA, which is the sole remaining viable off-site monitoring well previously installed by others.

Four selected groundwater samples were further analyzed at the laboratory under EPA Method 8270; Table 6 summarizes the laboratory data:

TABLE 6: SVOC LABORATORY RESULTS FOR SELECTED GROUNDWATER SAMPLES (detected compounds only)

Substance	Sample Location				Standard	
	B2GW	B3GW	B4GW	B6GW		
Acenaphthene	ND	2.5	ND	3.5	20	
Anthracene	ND	ND	ND	6.5	50	
Benzo[a]anthracene	ND	ND	ND	**26**	0.002	
Benzo[a]pyrene	ND	ND	ND	**18**	0.002	ND
Benzo[b]fluoranthene	ND	ND	ND	**21**	0.002	
Benzo[g,h,i]perylene	ND	ND	ND	**12**	5	NS
Benzo[k]fluoranthene	ND	ND	ND	**8.3**	0.002	
Chrysene	ND	ND	ND	**23**	0.002	
Dibenzo[a,h]anthracene	ND	ND	ND	3.4	50	NS
Fluoranthene	ND	5.1	ND	36	50	
Fluorene	ND	5.1	ND	2.7	50	
Indeno[1,2,3-cd]pyrene	ND	ND	ND	**9.4**	0.002	
Naphthalene	4.3	**12**	ND	1.1	10	
Phenanthrene	ND	6.90	ND	33	50	
Pyrene	ND	4.5	ND	**56**	50	
TOTAL SVOCs	4.3	36.1	0.0	259.9		

NOTES

1. **Results expressed in micrograms per liter (ug/l), which can also be expressed as parts per billion (ppb).**
2. **Any result in bold exceeds New York State Department of Health Maximum Contaminant Level for drinking water, and the guidance values or standard listed in the NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values.**
3. **ND: Parameter non-detected, below method detection limits.**

B2GW, B3GW and B4GW were all installed at estimated hydraulic downgradient positions relative to the former UST/dispenser area. Naphthalene, a constituent of diesel fuel, was detected B3GW at a slightly elevated concentration. No other SVOCs were detected at levels exceeding applicable regulatory limits in B2GW and B3GW where physical evidence of petroleum impact was identified on groundwater, and where VOC laboratory analysis confirmed a petroleum release. B6GW was collected from a boring located at an estimated hydraulic upgradient position relative to the former UST/dispenser area, and no physical evidence of petroleum contamination was identified in soil or groundwater at this boring. Several SVOCs were detected at concentrations that exceed applicable regulatory limits in B6GW. However, a substantial thickness of urban fill is present at the subsurface within B6 and the collected

groundwater sample was highly turbid. MECC therefore believes that the elevated SVOC levels in B6GW are a result of suspended solids consisting of fill constituents in the media is the cause of this condition.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The principal finding of this study is the lack of any evidence to suggest that chlorinated VOCs are present in soil or groundwater at the Site at actionable or reportable concentrations. While residual levels of PCE were detected in certain groundwater samples, MECC concludes that this condition represents general background groundwater quality and that no evidence was uncovered to suggest that the Site is the source of an actionable PCE release. MECC believes that the number and positioning of groundwater sample collection points was sufficient in establishing Site groundwater quality with in connection with the potential presence of chlorinated VOCs.

MECC has confirmed that elevated concentrations of petroleum fuel-related VOCs exist in groundwater at an estimated hydraulic downgradient position relative to the former UST/dispenser area. This data reveals evidence of the possibility of petroleum-contaminated soil that may remain in the vicinity of the former UST/dispenser area; this condition can be directly related to the unresolved petroleum spill incident reported to NYSDEC in 2013. Regulatory agency files pertinent to the Site (obtained from NYSDEC) indicate it is possible that contaminated soil excavation efforts were discontinued by a prior Site owner. No documentation exists in these files showing that petroleum-contaminated soil was removed from the Site for proper disposal. While not considered severe, the discovered petroleum contamination in groundwater shows that additional action will be required by NYSDEC to address the unresolved spill case against the Site (Spill Case No. 1301128).

Fill material is present beneath the Site and laboratory analytical data shows that this material contains slightly elevated levels of certain TAL Metals and pesticides. These reported contaminant concentrations and contaminant types are common to urban fill and were not reported by the laboratory at unusually high levels, but any future soil excavation activity will incur higher charges for special disposal should excess material be generated.

One potential abandoned heating oil UST may be present under the Site building, but laboratory analysis of soil and groundwater sample collected from soil borings installed inside the structure identified no evidence of an actionable petroleum release. This UST, if present, will need to be properly and permanently closed in accordance with applicable state regulations and guidance documents.

6.0 LIMITATIONS OF THE FSSI

MECC has completed this Focused Subsurface Site Investigation in accordance with the contract scope of work, using reasonable efforts to attempt to identify areas of potential liability associated with adverse environmental conditions at the Site. MECC has made no independent investigation of the accuracy of secondary sources and has assumed them to be accurate and complete. MECC does not warrant the accuracy or completeness of information provided by secondary sources. MECC does not warrant that the Site is suitable for any particular purpose or that the Site is clean or free of liability. This study is intended solely for environmental due diligence purposes, was not designed to meet regulatory requirements for delineation of the contamination discovered at the Site and was not a submittal for regulatory agency review.

APPENDIX A:
SITE LOCATION MAP
SITE PLAN

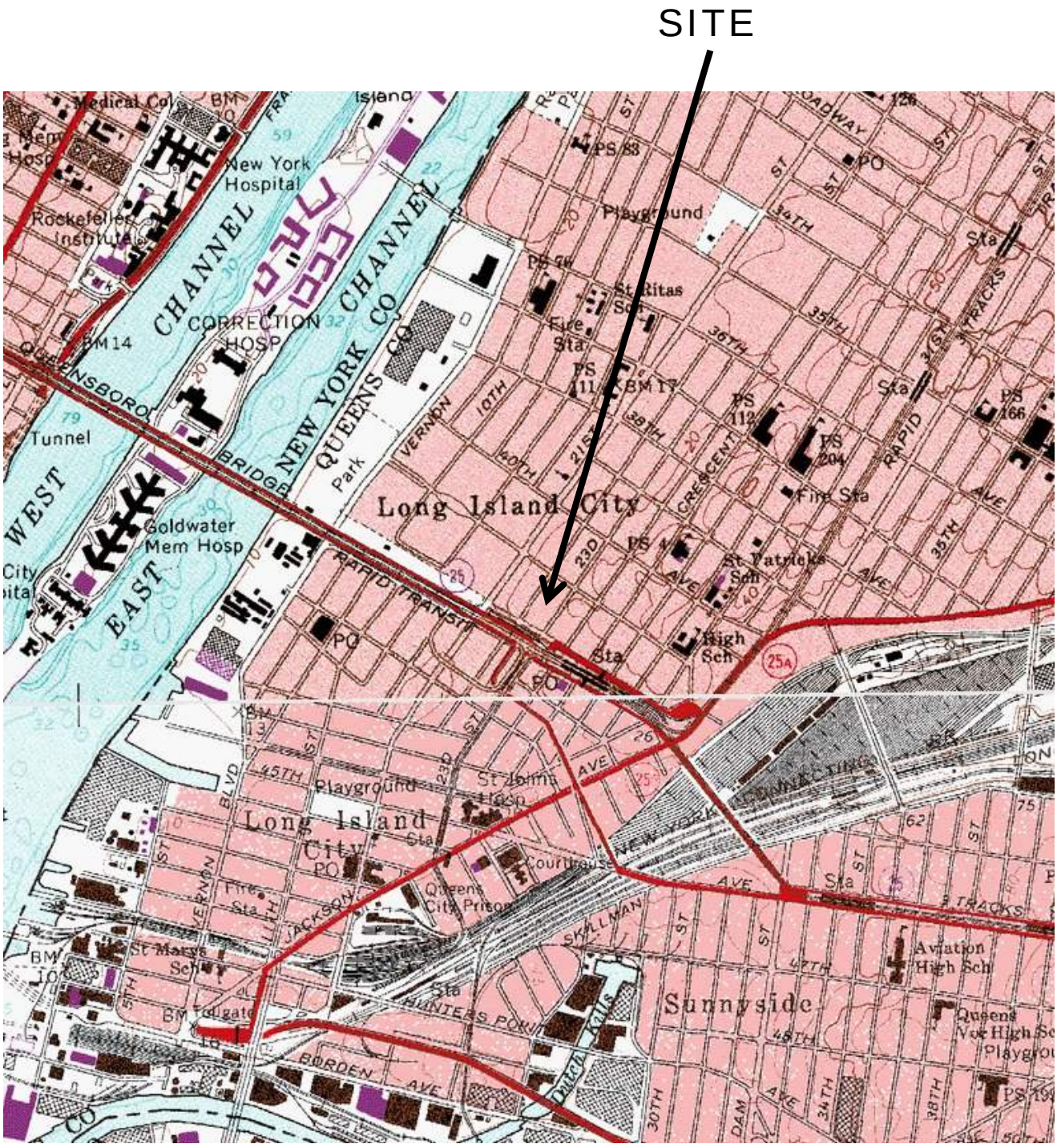
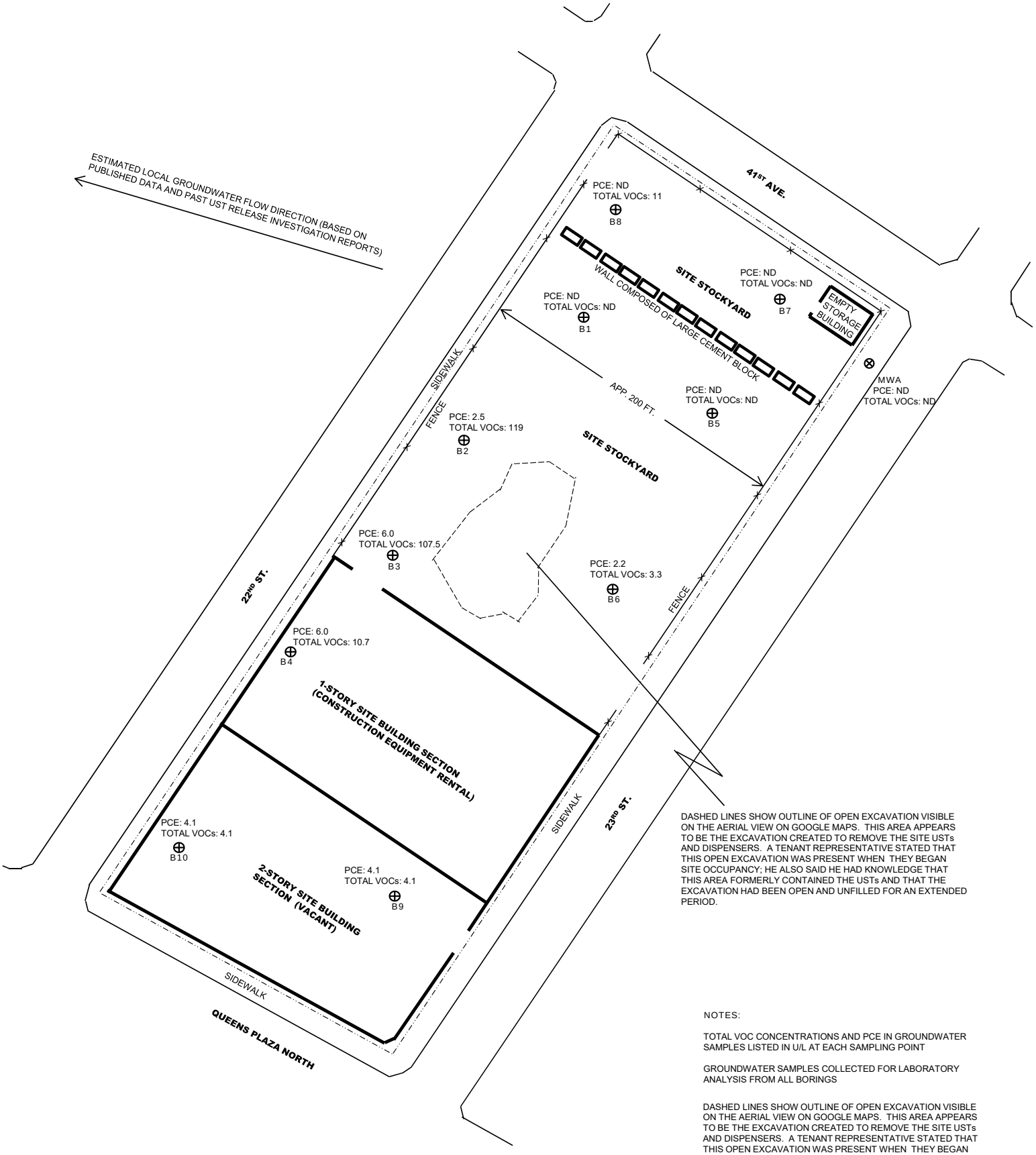


FIGURE 1: SITE LOCATION MAP Contour Interval: 10'	Site Address: **22-01 to 22-19 Queens Plaza N.** **Long Island City, NY**
USGS 7.5" Quadrangle Map titled *Central Park, NY,* dated 1995	



DASHED LINES SHOW OUTLINE OF OPEN EXCAVATION VISIBLE ON THE AERIAL VIEW ON GOOGLE MAPS. THIS AREA APPEARS TO BE THE EXCAVATION CREATED TO REMOVE THE SITE USTs AND DISPENSERS. A TENANT REPRESENTATIVE STATED THAT THIS OPEN EXCAVATION WAS PRESENT WHEN THEY BEGAN SITE OCCUPANCY; HE ALSO SAID HE HAD KNOWLEDGE THAT THIS AREA FORMERLY CONTAINED THE USTs AND THAT THE EXCAVATION HAD BEEN OPEN AND UNFILLED FOR AN EXTENDED PERIOD.

NOTES:

TOTAL VOC CONCENTRATIONS AND PCE IN GROUNDWATER SAMPLES LISTED IN U/L AT EACH SAMPLING POINT

GROUNDWATER SAMPLES COLLECTED FOR LABORATORY ANALYSIS FROM ALL BORINGS

DASHED LINES SHOW OUTLINE OF OPEN EXCAVATION VISIBLE ON THE AERIAL VIEW ON GOOGLE MAPS. THIS AREA APPEARS TO BE THE EXCAVATION CREATED TO REMOVE THE SITE USTs AND DISPENSERS. A TENANT REPRESENTATIVE STATED THAT THIS OPEN EXCAVATION WAS PRESENT WHEN THEY BEGAN SITE OCCUPANCY; HE ALSO SAID HE HAD KNOWLEDGE THAT THIS ARE FORMERLY CONTAINED THE USTs AND THAT THE EXCAVATION HAD BEEN OPEN AND UNFILLED FOR AN EXTENDED PERIOD.

NUMEROUS GROUNDWATER MONITORING WELL COVER PLATES ARE PRESENT IN THE VICINITY OF THIS FORMER EXCAVATION, BUT ALL ARE EITHER DESTROYED OR PERMANENTLY SEALED WITH CONCRETE.

FOR THOSE SOIL BORINGS WHERE TOTAL VOC CONTENT IN GROUNDWATER EXCEEDS INDIVIDUAL PCE CONTENT, ALL ADDITIONAL VOCs CONSIST OF PETROLEUM FUEL-RELATED SUBSTANCES

SITE SKETCH: 21-01 TO 21-19 QUEENS PLAZA NORTH
NOT TO SCALE LONG ISLAND CITY, NY

⊗ DENOTES EXISTING AND VIABLE MONITORING WELLS
⊕ DENOTES SOIL BORING LOCATIONS

PATTERNED LINES ENCLOSE THE SITE

N

APPENDIX B:
SOIL BORING LOGS

MERRITT ENVIRONMENTAL CONSULTING CORP. **77 Arkay Dr., Suite D** **Hauppauge, NY 11788** **631.617.3200**		Boring No. **B1**
	Project Number: 20030021	Boring location: **see site plan**
Driller: **PG Environmental** Geologist: **Frank Galdun**	Location: 22-01 Queens Plaza North Long Island City, NY	
Groundwater Observations: Wet 8.85'	Geoprobe with 5-foot casing sampler Type: Track-mounted Size I.D. 2" Hammer wt. N/A Hammer Fall: N/A	Date Start : 2/7/19 Date Complete : 2/7/19 Surface Elev. : N/A Groundwater Elev.: N/A

Depth feet	Sample #	Sample Type	Blows per 6 " 0-6	Blows per 6 " 6-12	Blows per 6 " 12-18	density moisture	PID	Field Identification of soil Remarks
	N/A	N/A	N/A	N/A	N/A			
0'-5'						Dry	0.0 0.0	60% recovery. Fill (sand, clay, crushed brick) No odor
5'-10'						Wet	0.0 0.0	30% recovery. Dark brown fine sand and clay No odor.
10'-15'						Wet	0.1 0.0	90% recovery. Light brown fine sand ro 11'. Lighty grey silt 11'-12'. Dark brown medium-fine sand 12'-15'. No odor End of boring 15 ft. Groundwater sampling screen set at 10 ft.-15-ft.

ground surface to _____ft. used_____ casing then_____casing to _____ft
A= auger ss: split spoon sampler mc: macrocore HSA: hollow stem auger HA: Hand Auger
Trace: 0-10% Little: 10-20% some: 20-10%
C= coarse M=medium F=fine

MERRITT ENVIRONMENTAL CONSULTING CORP. **77 Arkay Dr., Suite D** **Hauppauge, NY 11788** **631.617.3200**		Boring No. **B2**
	Project Number: 20030021	Boring location: **see site plan**
Driller: **PG Environmental** Geologist: **Frank Galdun**	Location: 22-01 Queens Plaza North Long Island City, NY	
Groundwater Observations: Wet 8.4'	Geoprobe with 5-foot casing sampler Type: Track-mounted Size I.D. 2" Hammer wt. N/A Hammer Fall: N/A	Date Start : 2/7/19 Date Complete : 2/7/19 Surface Elev. : N/A Groundwater Elev.: N/A

Depth feet	Sample #	Sample Type	Blows per 6 " 0-6	Blows per 6 " 6-12	Blows per 6 " 12-18	density moisture	PID	Field Identification of soil Remarks
	N/A	N/A	N/A	N/A	N/A			
0'-5'						Dry	0.0 0.0	35% recovery. Fill (sand, crushed rock, crushed brick) No odor
5'-10'						Wet	0.8 25.0	60% recovery. Dark brown to black fill (wood, sand, rock fragments) to 8.5'. Light brown medium sand 8.5'-10'. Petroleum odor at water table
10'-15'						Wet	12.3 0.2	90% recovery. Coarse grey sand to 12'. Fine to medium brown to grey sand 12'-13.5'. Grey silt 13.5'-15'. Petroleum odor
								End of boring 15 ft. Groundwater sampling screen set at 10 ft.-15-ft.

ground surface to _____ft. used_____ casing then_____casing to _____ft
A= auger ss: split spoon sampler mc: macrocore HSA: hollow stem auger HA: Hand Auger
Trace: 0-10% Little: 10-20% some: 20-10%
C= coarse M=medium F=fine

MERRITT ENVIRONMENTAL CONSULTING CORP. **77 Arkay Dr., Suite D** **Hauppauge, NY 11788** **631.617.3200**		Boring No. **B3**
	Project Number: 20030021	Boring location: **see site plan**
Driller: **PG Environmental** Geologist: **Frank Galdun**	Location: 22-01 Queens Plaza North Long Island City, NY	
Groundwater Observations: Wet 8.4'	Geoprobe with 5-foot casing sampler Type: Track-mounted Size I.D. 2" Hammer wt. N/A Hammer Fall: N/A	Date Start : 2/7/19 Date Complete : 2/7/19 Surface Elev. : N/A Groundwater Elev.: N/A

Depth feet	Sample #	Sample Type	Blows per 6 " 0-6	Blows per 6 " 6-12	Blows per 6 " 12-18	density moisture	PID	Field Identification of soil Remarks
0'-5'	N/A	N/A	N/A	N/A	N/A	Dry	0.0 0.0	10% recovery. Loose fill (sand, asphalt, crushed concrete) No odor
5'-10'						Wet	0.5 22.7	80% recovery. Medium brown sand with clay/silt in shoe. Petroleum odor at water table
10'-15'						Wet	14.6 0.3	90% recovery. Wet black to dark brown fine sand grading to brown medium sand. Petroleum odor
								End of boring 15 ft. Groundwater sampling screen set at 10 ft.-15-ft.

ground surface to _____ft. used_____ casing then_____casing to _____ft
A= auger ss: split spoon sampler mc: macrocore HSA: hollow stem auger HA: Hand Auger
Trace: 0-10% Little: 10-20% some: 20-10%
C= coarse M=medium F=fine

MERRITT ENVIRONMENTAL CONSULTING CORP. **77 Arkay Dr., Suite D** **Hauppauge, NY 11788** **631.617.3200**		Boring No. **B4**
	Project Number: 20030021	Boring location: **see site plan**
Driller: **PG Environmental** Geologist: **Frank Galdun**	Location: 22-01 Queens Plaza North Long Island City, NY	
Groundwater Observations: Wet 10.2'	Geoprobe with 5-foot casing sampler Type: Track-mounted Size I.D. 2" Hammer wt. N/A Hammer Fall: N/A	Date Start : 2/7/19 Date Complete : 2/7/19 Surface Elev. : N/A Groundwater Elev.: N/A

Depth feet	Sample #	Sample Type	Blows per 6 " 0-6	6-12	12-18	density moisture	PID	Field Identification of soil Remarks
0'-5'	N/A	N/A	N/A	N/A	N/A	Dry	0.0 0.0	20% recovery. Loose fill (rock & concrete fragments, sand, crushed brick) No odor
5'-10'						Moist	0.0 0.3	60% recovery. Medium brown sand to 9'. Brown fine sand some clay/silt 9'-10'. No odor.
10'-15'						Wet	0.3 0.0	80% recovery. Medium brown sand to 14'. Fine brown sand trace clay/silt 14'-15'. No odor
								End of boring 15 ft. Groundwater sampling screen set at 10 ft.-15-ft.

ground surface to _____ft. used_____ casing then_____casing to _____ft
A= auger ss: split spoon sampler mc: macrocore HSA: hollow stem auger HA: Hand Auger
Trace: 0-10% Little: 10-20% some: 20-10%
C= coarse M=medium F=fine

MERRITT ENVIRONMENTAL CONSULTING CORP. **77 Arkay Dr., Suite D** **Hauppauge, NY 11788** **631.617.3200**		Boring No. **B5**
	Project Number: 20030021	Boring location: **see site plan**
Driller: **PG Environmental** Geologist: **Frank Galdun**	Location: 22-01 Queens Plaza North Long Island City, NY	
Groundwater Observations: Wet 8.7'	Geoprobe with 5-foot casing sampler Type: Track-mounted Size I.D. 2" Hammer wt. N/A Hammer Fall: N/A	Date Start : 2/7/19 Date Complete : 2/7/19 Surface Elev. : N/A Groundwater Elev.: N/A

Depth feet	Sample #	Sample Type	Blows per 6 " 0-6	6-12	12-18	density moisture	PID	Field Identification of soil Remarks
0'-5'	N/A	N/A	N/A	N/A	N/A	Dry	0.0 0.0	10% recovery. Loose fill (rock & concrete fragments, sand, crushed brick) No odor
5'-10'						Wet	0.0 0.0	20% recovery. Fine brown sand and silt. No odor.
10'-15'						Wet	0.1 0.0	70% recovery. Medium brown sand to 12.5'. Light grey silty clay 12.5'-13.5'. Fine brown sand some silt 13.5'-15'. No odor
								End of boring 15 ft. Groundwater sampling screen set at 10 ft.-15-ft.

ground surface to _____ft. used_____ casing then_____casing to _____ft

A= auger ss: split spoon sampler mc: macrocore HSA: hollow stem auger HA: Hand Auger

Trace: 0-10% Little: 10-20% some: 20-10%

C= coarse M=medium F=fine

MERRITT ENVIRONMENTAL CONSULTING CORP. **77 Arkay Dr., Suite D** **Hauppauge, NY 11788** **631.617.3200**		Boring No. **B6**
	Project Number: 20030021	Boring location: **see site plan**
Driller: **PG Environmental** Geologist: **Frank Galdun**	Location: 22-01 Queens Plaza North Long Island City, NY	
Groundwater Observations: Wet 8.2'	Geoprobe with 5-foot casing sampler Type: Track-mounted Size I.D. 2" Hammer wt. N/A Hammer Fall: N/A	Date Start : 2/7/19 Date Complete : 2/7/19 Surface Elev. : N/A Groundwater Elev.: N/A

Depth feet	Sample #	Sample Type	Blows per 6 " 0-6	Blows per 6 " 6-12	Blows per 6 " 12-18	density moisture	PID	Field Identification of soil Remarks
	N/A	N/A	N/A	N/A	N/A			
0'-5'						Dry	0.0	50% recovery. Loose fill (rock & concrete fragments, sand, crushed brick) No odor
							0.0	
5'-10'						Wet	0.0	70% recovery. Fine brown sand trace silt. No odor.
							0.3	
10'-15'						Wet	0.3	80% recovery. Medium brown sand some small gravel to 14'. Fine brown sand trace silt 14'-15'. No odor
							0.0	
								End of boring 15 ft. Groundwater sampling screen set at 10 ft.-15-ft.

ground surface to _____ft. used_____ casing then_____casing to _____ft

A= auger ss: split spoon sampler mc: macrocore HSA: hollow stem auger HA: Hand Auger

Trace: 0-10% Little: 10-20% some: 20-10%

C= coarse M=medium F=fine

MERRITT ENVIRONMENTAL CONSULTING CORP. **77 Arkay Dr., Suite D** **Hauppauge, NY 11788** **631.617.3200**		Boring No. **B7**
	Project Number: 20030021	Boring location: **see site plan**
Driller: **PG Environmental** Geologist: **Frank Galdun**	Location: 22-01 Queens Plaza North Long Island City, NY	
Groundwater Observations: Wet 10.9'	Geoprobe with 5-foot casing sampler Type: Track-mounted Size I.D. 2" Hammer wt. N/A Hammer Fall: N/A	Date Start : 2/8/19 Date Complete : 2/8/19 Surface Elev. : N/A Groundwater Elev.: N/A

Depth feet	Sample #	Sample Type	Blows per 6 " 0-6	6-12	12-18	density moisture	PID	Field Identification of soil Remarks
0'-5'	N/A	N/A	N/A	N/A	N/A	Dry	0.0 0.0	50% recovery. Dark brown clay trace fine sand 0'-4'. Brown medium sand 4'-5' (all possible fill) No odor
5'-10'						Moist	0.0 0.0	70% recovery. Light brown to dark brown fill (grey medium sand and rock fragments). No odor.
10'-15'						Wet	0.1 0.0	90% recovery. Brown coarse sand to 10'-11'. Fine brown sand some silt 11'-13'. Fine brown sand some clay 13'-15'. No odor
								End of boring 15 ft. Groundwater sampling screen set at 10 ft.-15-ft.

ground surface to _____ft. used_____ casing then_____casing to _____ft
A= auger ss: split spoon sampler mc: macrocore HSA: hollow stem auger HA: Hand Auger
Trace: 0-10% Little: 10-20% some: 20-10%
C= coarse M=medium F=fine

MERRITT ENVIRONMENTAL CONSULTING CORP. **77 Arkay Dr., Suite D** **Hauppauge, NY 11788** **631.617.3200**		Boring No. **B8**
	Project Number: 20030021	Boring location: **see site plan**
Driller: **PG Environmental** Geologist: **Frank Galdun**	Location: 22-01 Queens Plaza North Long Island City, NY	
Groundwater Observations: Wet 8'	Geoprobe with 5-foot casing sampler Type: Track-mounted Size I.D. 2" Hammer wt. N/A Hammer Fall: N/A	Date Start : 2/7/19 Date Complete : 2/7/19 Surface Elev. : N/A Groundwater Elev.: N/A

Depth feet	Sample #	Sample Type	Blows per 6 " 0-6	Blows per 6 " 6-12	Blows per 6 " 12-18	density moisture	PID	Field Identification of soil Remarks
	N/A	N/A	N/A	N/A	N/A			
0'-5'						Dry	0.0	10% recovery. Loose fill (rock & concrete fragments, sand) No odor
							0.0	
5'-10'						Wet	0.0	50% recovery. Fill (sand, rock & concrete fragments, some crushed brick, trace glass fragments). No odor.
							0.0	
10'-15'						Wet	0.0	70% recovery. Light grey to light brown silty clay to 12'. Brown medium sand grading to fine brown sand trace to some clay 12'-15'. No odor
							0.0	
								End of boring 15 ft. Groundwater sampling screen set at 10 ft.-15-ft.

ground surface to _____ft. used_____ casing then_____casing to _____ft

A= auger ss: split spoon sampler mc: macrocore HSA: hollow stem auger HA: Hand Auger

Trace: 0-10% Little: 10-20% some: 20-10%

C= coarse M=medium F=fine

MERRITT ENVIRONMENTAL CONSULTING CORP. **77 Arkay Dr., Suite D** **Hauppauge, NY 11788** **631.617.3200**		Boring No. **B9**
	Project Number: 20030021	Boring location: **see site plan**
Driller: **PG Environmental** Geologist: **Frank Galdun**	Location: 22-01 Queens Plaza North Long Island City, NY	
Groundwater Observations: Wet 10.2'	Geoprobe with 5-foot casing sampler Type: Track-mounted Size I.D. 2" Hammer wt. N/A Hammer Fall: N/A	Date Start : 2/8/19 Date Complete : 2/8/19 Surface Elev. : N/A Groundwater Elev.: N/A

Depth feet	Sample #	Sample Type	Blows per 6 " 0-6	6-12	12-18	density moisture	PID	Field Identification of soil Remarks
0'-5'	N/A	N/A	N/A	N/A	N/A	Dry	0.0 0.0	30% recovery. Medium brown sand No odor
5'-10'						Dry	0.0 0.0	30% recovery. Medium brown sand. No odor.
10'-15'						Wet	0.1 0.0	80% recovery. Medium, to fine brown sand. No odor
								End of boring 15 ft. Groundwater sampling screen set at 10 ft.-15-ft.

ground surface to _____ft. used_____ casing then_____casing to _____ft

A= auger ss: split spoon sampler mc: macrocore HSA: hollow stem auger HA: Hand Auger

Trace: 0-10% Little: 10-20% some: 20-10%

C= coarse M=medium F=fine

MERRITT ENVIRONMENTAL CONSULTING CORP. **77 Arkay Dr., Suite D** **Hauppauge, NY 11788** **631.617.3200**		Boring No. **B10**
	Project Number: 20030021	Boring location: **see site plan**
Driller: **PG Environmental** Geologist: **Frank Galdun**	Location: 22-01 Queens Plaza North Long Island City, NY	
Groundwater Observations: Wet 9.2'	Geoprobe with 5-foot casing sampler Type: Track-mounted Size I.D. 2" Hammer wt. N/A Hammer Fall: N/A	Date Start : 2/8/19 Date Complete : 2/8/19 Surface Elev. : N/A Groundwater Elev.: N/A

Depth feet	Sample #	Sample Type	Blows per 6 " 0-6	Blows per 6 " 6-12	Blows per 6 " 12-18	density moisture	PID	Field Identification of soil Remarks
	N/A	N/A	N/A	N/A	N/A			
0'-5'						Dry	0.0	50% recovery. Less than 1' fill then medium brown sand trace to little silt/clay. No odor
							0.0	
5'-10'						Moist	0.0	70% recovery. Brown medium sand. No odor.
							0.0	
10'-15'						Wet	0.1	80% recovery. Brown medium sand grading to brown fine sand. No odor
							0.0	
								End of boring 15 ft. Groundwater sampling screen set at 10 ft.-15-ft.

ground surface to _____ft. used_____ casing then_____casing to _____ft

A= auger ss: split spoon sampler mc: macrocore HSA: hollow stem auger HA: Hand Auger

Trace: 0-10% Little: 10-20% some: 20-10%

C= coarse M=medium F=fine

APPENDIX C:
LABORATORY REPORT OF ANALYSIS

Hampton-Clarke Report Of Analysis

Client: GFE LLC **HC Project #:** 9021105

Project: 22-01 Queen Plz.N.LI City

Sample ID: B1 5' **Collection Date:** 2/7/2019
Lab#: AD09023-001 **Receipt Date:** 2/11/2019
Matrix: Soil

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	**1**	**percent**		**89**

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.973	mg/kg	0.0022	ND
1,1-Dichloroethane	0.973	mg/kg	0.0022	ND
1,1-Dichloroethene	0.973	mg/kg	0.0022	ND
1,2,4-Trimethylbenzene	0.973	mg/kg	0.0011	ND
1,2-Dichlorobenzene	0.973	mg/kg	0.0022	ND
1,2-Dichloroethane	0.973	mg/kg	0.0022	ND
1,3,5-Trimethylbenzene	0.973	mg/kg	0.0011	ND
1,3-Dichlorobenzene	0.973	mg/kg	0.0022	ND
1,4-Dichlorobenzene	0.973	mg/kg	0.0022	ND
1,4-Dioxane	0.973	mg/kg	0.11	ND
2-Butanone	0.973	mg/kg	0.0022	ND
4-Isopropyltoluene	0.973	mg/kg	0.0011	ND
Acetone	**0.973**	**mg/kg**	**0.011**	**0.018**
Benzene	0.973	mg/kg	0.0011	ND
Carbon tetrachloride	0.973	mg/kg	0.0022	ND
Chlorobenzene	0.973	mg/kg	0.0022	ND
Chloroform	0.973	mg/kg	0.0022	ND
cis-1,2-Dichloroethene	0.973	mg/kg	0.0022	ND
Ethylbenzene	0.973	mg/kg	0.0011	ND
Isopropylbenzene	0.973	mg/kg	0.0011	ND
m&p-Xylenes	0.973	mg/kg	0.0011	ND
Methylene chloride	0.973	mg/kg	0.0022	ND
Methyl-t-butyl ether	0.973	mg/kg	0.0011	ND
Naphthalene	0.973	mg/kg	0.0011	ND
n-Butylbenzene	0.973	mg/kg	0.0011	ND
n-Propylbenzene	0.973	mg/kg	0.0011	ND
o-Xylene	0.973	mg/kg	0.0011	ND
sec-Butylbenzene	0.973	mg/kg	0.0011	ND
t-Butylbenzene	0.973	mg/kg	0.0011	ND
Tetrachloroethene	0.973	mg/kg	0.0022	ND
Toluene	**0.973**	**mg/kg**	**0.0011**	**0.0013**
trans-1,2-Dichloroethene	0.973	mg/kg	0.0022	ND
Trichloroethene	0.973	mg/kg	0.0022	ND
Vinyl chloride	0.973	mg/kg	0.0022	ND
Xylenes (Total)	0.973	mg/kg	0.0011	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.76	30	68	122	96	
Dibromofluoromethane	29.99	30	63	140	100	
Bromofluorobenzene	30.40	30	64	129	101	
1,2-Dichloroethane-d4	29.53	30	63	143	98	

Sample ID: B2 3'-5' | **Collection Date:** 2/7/2019
Lab#: AD09023-002 | **Receipt Date:** 2/11/2019
Matrix: Soil

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**86**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	1	mg/kg	0.28	ND

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.097	ND

PAH Compounds 8270

Analyte	DF	Units	RL	Result
Acenaphthene	1	mg/kg	0.039	ND
Acenaphthylene	**1**	**mg/kg**	**0.039**	**0.061**
Anthracene	**1**	**mg/kg**	**0.039**	**0.076**
Benzo[a]anthracene	**1**	**mg/kg**	**0.039**	**0.45**
Benzo[a]pyrene	**1**	**mg/kg**	**0.039**	**0.34**
Benzo[b]fluoranthene	**1**	**mg/kg**	**0.039**	**0.50**
Benzo[g,h,i]perylene	**1**	**mg/kg**	**0.039**	**0.17**
Benzo[k]fluoranthene	**1**	**mg/kg**	**0.039**	**0.20**
Chrysene	**1**	**mg/kg**	**0.039**	**0.43**
Dibenzo[a,h]anthracene	**1**	**mg/kg**	**0.039**	**0.065**
Fluoranthene	**1**	**mg/kg**	**0.039**	**0.84**
Fluorene	1	mg/kg	0.039	ND
Indeno[1,2,3-cd]pyrene	**1**	**mg/kg**	**0.039**	**0.17**
Naphthalene	1	mg/kg	0.0097	ND
Phenanthrene	**1**	**mg/kg**	**0.039**	**0.33**
Pyrene	**1**	**mg/kg**	**0.039**	**0.73**

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	48.64	50	58	148	97	
Phenol-d5	82.81	100	49	129	83	
Nitrobenzene-d5	40.30	50	52	129	81	
2-Fluorophenol	81.68	100	43	128	82	
2-Fluorobiphenyl	42.19	50	58	125	84	
2,4,6-Tribromophenol	88.29	100	54	145	88	

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	**1**	**mg/kg**	**0.029**	**0.039**
Aroclor-1016	1	mg/kg	0.029	ND
Aroclor-1221	1	mg/kg	0.029	ND
Aroclor-1232	1	mg/kg	0.029	ND
Aroclor-1242	1	mg/kg	0.029	ND
Aroclor-1248	1	mg/kg	0.029	ND
Aroclor-1254	1	mg/kg	0.029	ND
Aroclor-1260	**1**	**mg/kg**	**0.029**	**0.039**
Aroclor-1262	1	mg/kg	0.029	ND
Aroclor-1268	1	mg/kg	0.029	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	106.75	100	37	141	107	
TCMX-Surrogate	107.19	100	37	141	107	
DCB-Surrogate	131.13	100	34	146	131	
DCB-Surrogate	128.45	100	34	146	128	

TAL Metals 6010D

Analyte	DF	Units	RL	Result
Aluminum	**1**	**mg/kg**	**230**	**7000**
Barium	**1**	**mg/kg**	**12**	**50**
Calcium	**1**	**mg/kg**	**1200**	**30000**
Chromium	**1**	**mg/kg**	**5.8**	**8.5**
Cobalt	1	mg/kg	2.9	ND
Copper	1	mg/kg	5.8	ND
Iron	**1**	**mg/kg**	**230**	**7400**
Lead	**1**	**mg/kg**	**5.8**	**42**

Sample ID: B2 3'-5' **Collection Date: 2/7/2019**
Lab#: AD09023-002 **Receipt Date: 2/11/2019**
Matrix: Soil

Magnesium	**1**	**mg/kg**	**580**	**4800**
Manganese	**1**	**mg/kg**	**12**	**170**
Nickel	1	mg/kg	5.8	ND
Potassium	**1**	**mg/kg**	**580**	**630**
Sodium	**1**	**mg/kg**	**290**	**670**
Vanadium	**1**	**mg/kg**	**12**	**12**
Zinc	**1**	**mg/kg**	**12**	**33**

TAL Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.93	ND
Arsenic	**1**	**mg/kg**	**0.23**	**2.5**
Beryllium	**1**	**mg/kg**	**0.23**	**0.31**
Cadmium	1	mg/kg	0.47	ND
Selenium	1	mg/kg	2.3	ND
Silver	1	mg/kg	0.23	ND
Thallium	1	mg/kg	0.47	ND

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1.01	mg/kg	0.0023	ND
1,1-Dichloroethane	1.01	mg/kg	0.0023	ND
1,1-Dichloroethene	1.01	mg/kg	0.0023	ND
1,2,4-Trimethylbenzene	1.01	mg/kg	0.0012	ND
1,2-Dichlorobenzene	1.01	mg/kg	0.0023	ND
1,2-Dichloroethane	1.01	mg/kg	0.0023	ND
1,3,5-Trimethylbenzene	1.01	mg/kg	0.0012	ND
1,3-Dichlorobenzene	1.01	mg/kg	0.0023	ND
1,4-Dichlorobenzene	1.01	mg/kg	0.0023	ND
1,4-Dioxane	1.01	mg/kg	0.12	ND
2-Butanone	1.01	mg/kg	0.0023	ND
4-Isopropyltoluene	1.01	mg/kg	0.0012	ND
Acetone	1.01	mg/kg	0.012	ND
Benzene	1.01	mg/kg	0.0012	ND
Carbon tetrachloride	1.01	mg/kg	0.0023	ND
Chlorobenzene	1.01	mg/kg	0.0023	ND
Chloroform	1.01	mg/kg	0.0023	ND
cis-1,2-Dichloroethene	1.01	mg/kg	0.0023	ND
Ethylbenzene	1.01	mg/kg	0.0012	ND
Isopropylbenzene	1.01	mg/kg	0.0012	ND
m&p-Xylenes	1.01	mg/kg	0.0012	ND
Methylene chloride	1.01	mg/kg	0.0023	ND
Methyl-t-butyl ether	1.01	mg/kg	0.0012	ND
Naphthalene	1.01	mg/kg	0.0012	ND
n-Butylbenzene	1.01	mg/kg	0.0012	ND
n-Propylbenzene	1.01	mg/kg	0.0012	ND
o-Xylene	1.01	mg/kg	0.0012	ND
sec-Butylbenzene	1.01	mg/kg	0.0012	ND
t-Butylbenzene	1.01	mg/kg	0.0012	ND
Tetrachloroethene	1.01	mg/kg	0.0023	ND
Toluene	1.01	mg/kg	0.0012	ND
trans-1,2-Dichloroethene	1.01	mg/kg	0.0023	ND
Trichloroethene	1.01	mg/kg	0.0023	ND
Vinyl chloride	1.01	mg/kg	0.0023	ND
Xylenes (Total)	1.01	mg/kg	0.0012	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.39	30	68	122	98	
Dibromofluoromethane	30.14	30	63	140	100	
Bromofluorobenzene	30.45	30	64	129	101	
1,2-Dichloroethane-d4	29.56	30	63	143	99	

Sample ID: B3 6' **Collection Date:** 2/7/2019
Lab#: AD09023-003 **Receipt Date:** 2/11/2019
Matrix: Soil

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		92

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.958	mg/kg	0.0021	ND
1,1-Dichloroethane	0.958	mg/kg	0.0021	ND
1,1-Dichloroethene	0.958	mg/kg	0.0021	ND
1,2,4-Trimethylbenzene	0.958	mg/kg	0.0010	ND
1,2-Dichlorobenzene	0.958	mg/kg	0.0021	ND
1,2-Dichloroethane	0.958	mg/kg	0.0021	ND
1,3,5-Trimethylbenzene	0.958	mg/kg	0.0010	ND
1,3-Dichlorobenzene	0.958	mg/kg	0.0021	ND
1,4-Dichlorobenzene	0.958	mg/kg	0.0021	ND
1,4-Dioxane	0.958	mg/kg	0.10	ND
2-Butanone	0.958	mg/kg	0.0021	ND
4-Isopropyltoluene	0.958	mg/kg	0.0010	ND
Acetone	0.958	mg/kg	0.010	ND
Benzene	0.958	mg/kg	0.0010	ND
Carbon tetrachloride	0.958	mg/kg	0.0021	ND
Chlorobenzene	0.958	mg/kg	0.0021	ND
Chloroform	0.958	mg/kg	0.0021	ND
cis-1,2-Dichloroethene	0.958	mg/kg	0.0021	ND
Ethylbenzene	0.958	mg/kg	0.0010	ND
Isopropylbenzene	0.958	mg/kg	0.0010	ND
m&p-Xylenes	0.958	mg/kg	0.0010	ND
Methylene chloride	0.958	mg/kg	0.0021	ND
Methyl-t-butyl ether	0.958	mg/kg	0.0010	ND
Naphthalene	0.958	mg/kg	0.0010	ND
n-Butylbenzene	0.958	mg/kg	0.0010	ND
n-Propylbenzene	0.958	mg/kg	0.0010	ND
o-Xylene	0.958	mg/kg	0.0010	ND
sec-Butylbenzene	0.958	mg/kg	0.0010	ND
t-Butylbenzene	0.958	mg/kg	0.0010	ND
Tetrachloroethene	0.958	mg/kg	0.0021	ND
Toluene	0.958	mg/kg	0.0010	ND
trans-1,2-Dichloroethene	0.958	mg/kg	0.0021	ND
Trichloroethene	0.958	mg/kg	0.0021	ND
Vinyl chloride	0.958	mg/kg	0.0021	ND
Xylenes (Total)	0.958	mg/kg	0.0010	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.17	30	68	122	97	
Dibromofluoromethane	30.50	30	63	140	102	
Bromofluorobenzene	30.36	30	64	129	101	
1,2-Dichloroethane-d4	30.91	30	63	143	103	

Sample ID: B4 5.5-6.5' **Collection Date: 2/7/2019**
Lab#: AD09023-004 **Receipt Date: 2/11/2019**
Matrix: Soil

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**90**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	1	mg/kg	0.27	ND

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	**1**	**mg/kg**	**0.093**	**0.11**

PAH Compounds 8270

Analyte	DF	Units	RL	Result
Acenaphthene	**1**	**mg/kg**	**0.037**	**0.051**
Acenaphthylene	**1**	**mg/kg**	**0.037**	**0.053**
Anthracene	**1**	**mg/kg**	**0.037**	**0.13**
Benzo[a]anthracene	**1**	**mg/kg**	**0.037**	**0.53**
Benzo[a]pyrene	**1**	**mg/kg**	**0.037**	**0.51**
Benzo[b]fluoranthene	**1**	**mg/kg**	**0.037**	**0.69**
Benzo[g,h,i]perylene	**1**	**mg/kg**	**0.037**	**0.32**
Benzo[k]fluoranthene	**1**	**mg/kg**	**0.037**	**0.23**
Chrysene	**1**	**mg/kg**	**0.037**	**0.53**
Dibenzo[a,h]anthracene	**1**	**mg/kg**	**0.037**	**0.087**
Fluoranthene	**1**	**mg/kg**	**0.037**	**1.0**
Fluorene	**1**	**mg/kg**	**0.037**	**0.042**
Indeno[1,2,3-cd]pyrene	**1**	**mg/kg**	**0.037**	**0.29**
Naphthalene	**1**	**mg/kg**	**0.0093**	**0.018**
Phenanthrene	**1**	**mg/kg**	**0.037**	**0.66**
Pyrene	**1**	**mg/kg**	**0.037**	**1.0**

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	45.19	50	58	148	90	
Phenol-d5	82.83	100	49	129	83	
Nitrobenzene-d5	39.26	50	52	129	79	
2-Fluorophenol	81.96	100	43	128	82	
2-Fluorobiphenyl	41.92	50	58	125	84	
2,4,6-Tribromophenol	84.69	100	54	145	85	

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	1	mg/kg	0.028	ND
Aroclor-1016	1	mg/kg	0.028	ND
Aroclor-1221	1	mg/kg	0.028	ND
Aroclor-1232	1	mg/kg	0.028	ND
Aroclor-1242	1	mg/kg	0.028	ND
Aroclor-1248	1	mg/kg	0.028	ND
Aroclor-1254	1	mg/kg	0.028	ND
Aroclor-1260	1	mg/kg	0.028	ND
Aroclor-1262	1	mg/kg	0.028	ND
Aroclor-1268	1	mg/kg	0.028	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	119.46	100	37	141	119	
TCMX-Surrogate	101.04	100	37	141	101	
DCB-Surrogate	115.60	100	34	146	116	
DCB-Surrogate	92.18	100	34	146	92	

TAL Metals 6010D

Analyte	DF	Units	RL	Result
Aluminum	**1**	**mg/kg**	**220**	**14000**
Barium	**1**	**mg/kg**	**11**	**90**
Calcium	**1**	**mg/kg**	**1100**	**4000**
Chromium	**1**	**mg/kg**	**5.6**	**28**
Cobalt	**1**	**mg/kg**	**2.8**	**7.4**
Copper	**1**	**mg/kg**	**5.6**	**30**
Iron	**1**	**mg/kg**	**220**	**21000**
Lead	**1**	**mg/kg**	**5.6**	**140**

Sample ID: B4 5.5-6.5' **Collection Date: 2/7/2019**
Lab#: AD09023-004 **Receipt Date: 2/11/2019**
Matrix: Soil

Magnesium	**1**	**mg/kg**	**560**	**3400**
Manganese	**1**	**mg/kg**	**11**	**250**
Nickel	**1**	**mg/kg**	**5.6**	**19**
Potassium	**1**	**mg/kg**	**560**	**840**
Sodium	1	mg/kg	280	ND
Vanadium	**1**	**mg/kg**	**11**	**29**
Zinc	**1**	**mg/kg**	**11**	**100**

TAL Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.89	ND
Arsenic	**1**	**mg/kg**	**0.22**	**2.0**
Beryllium	1	mg/kg	0.22	ND
Cadmium	1	mg/kg	0.44	ND
Selenium	1	mg/kg	2.2	ND
Silver	1	mg/kg	0.22	ND
Thallium	1	mg/kg	0.44	ND

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	mg/kg	0.0022	ND
1,1-Dichloroethane	1	mg/kg	0.0022	ND
1,1-Dichloroethene	1	mg/kg	0.0022	ND
1,2,4-Trimethylbenzene	1	mg/kg	0.0011	ND
1,2-Dichlorobenzene	1	mg/kg	0.0022	ND
1,2-Dichloroethane	1	mg/kg	0.0022	ND
1,3,5-Trimethylbenzene	1	mg/kg	0.0011	ND
1,3-Dichlorobenzene	1	mg/kg	0.0022	ND
1,4-Dichlorobenzene	1	mg/kg	0.0022	ND
1,4-Dioxane	1	mg/kg	0.11	ND
2-Butanone	1	mg/kg	0.0022	ND
4-Isopropyltoluene	1	mg/kg	0.0011	ND
Acetone	**1**	**mg/kg**	**0.011**	**0.011**
Benzene	1	mg/kg	0.0011	ND
Carbon tetrachloride	1	mg/kg	0.0022	ND
Chlorobenzene	1	mg/kg	0.0022	ND
Chloroform	1	mg/kg	0.0022	ND
cis-1,2-Dichloroethene	1	mg/kg	0.0022	ND
Ethylbenzene	1	mg/kg	0.0011	ND
Isopropylbenzene	1	mg/kg	0.0011	ND
m&p-Xylenes	1	mg/kg	0.0011	ND
Methylene chloride	1	mg/kg	0.0022	ND
Methyl-t-butyl ether	1	mg/kg	0.0011	ND
Naphthalene	1	mg/kg	0.0011	ND
n-Butylbenzene	1	mg/kg	0.0011	ND
n-Propylbenzene	1	mg/kg	0.0011	ND
o-Xylene	1	mg/kg	0.0011	ND
sec-Butylbenzene	1	mg/kg	0.0011	ND
t-Butylbenzene	1	mg/kg	0.0011	ND
Tetrachloroethene	**1**	**mg/kg**	**0.0022**	**0.024**
Toluene	**1**	**mg/kg**	**0.0011**	**0.0015**
trans-1,2-Dichloroethene	1	mg/kg	0.0022	ND
Trichloroethene	1	mg/kg	0.0022	ND
Vinyl chloride	1	mg/kg	0.0022	ND
Xylenes (Total)	1	mg/kg	0.0011	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.62	30	68	122	99	
Dibromofluoromethane	30.65	30	63	140	102	
Bromofluorobenzene	32.19	30	64	129	107	
1,2-Dichloroethane-d4	30.26	30	63	143	101	

Sample ID: B5 4.5'-5.5' | **Collection Date:** 2/7/2019
Lab#: AD09023-005 | **Receipt Date:** 2/11/2019
Matrix: Soil

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		79

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	1	mg/kg	0.30	0.53

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	1.4

PAH Compounds 8270

Analyte	DF	Units	RL	Result
Acenaphthene	1	mg/kg	0.042	0.21
Acenaphthylene	1	mg/kg	0.042	0.089
Anthracene	1	mg/kg	0.042	0.46
Benzo[a]anthracene	1	mg/kg	0.042	1.4
Benzo[a]pyrene	1	mg/kg	0.042	1.3
Benzo[b]fluoranthene	1	mg/kg	0.042	1.7
Benzo[g,h,i]perylene	1	mg/kg	0.042	0.74
Benzo[k]fluoranthene	1	mg/kg	0.042	0.66
Chrysene	1	mg/kg	0.042	1.4
Dibenzo[a,h]anthracene	1	mg/kg	0.042	0.22
Fluoranthene	1	mg/kg	0.042	3.2
Fluorene	1	mg/kg	0.042	0.18
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.042	0.69
Naphthalene	1	mg/kg	0.011	0.11
Phenanthrene	1	mg/kg	0.042	2.6
Pyrene	1	mg/kg	0.042	3.1

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	44.09	50	58	148	88	
Phenol-d5	72.93	100	49	129	73	
Nitrobenzene-d5	34.95	50	52	129	70	
2-Fluorophenol	70.53	100	43	128	71	
2-Fluorobiphenyl	37.03	50	58	125	74	
2,4,6-Tribromophenol	80.59	100	54	145	81	

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	1	mg/kg	0.032	ND
Aroclor-1016	1	mg/kg	0.032	ND
Aroclor-1221	1	mg/kg	0.032	ND
Aroclor-1232	1	mg/kg	0.032	ND
Aroclor-1242	1	mg/kg	0.032	ND
Aroclor-1248	1	mg/kg	0.032	ND
Aroclor-1254	1	mg/kg	0.032	ND
Aroclor-1260	1	mg/kg	0.032	ND
Aroclor-1262	1	mg/kg	0.032	ND
Aroclor-1268	1	mg/kg	0.032	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	110.39	100	37	141	110	
TCMX-Surrogate	92.90	100	37	141	93	
DCB-Surrogate	104.97	100	34	146	105	
DCB-Surrogate	84.41	100	34	146	84	

TAL Metals 6010D

Analyte	DF	Units	RL	Result
Aluminum	1	mg/kg	250	13000
Barium	2	mg/kg	25	1600
Calcium	1	mg/kg	1300	15000
Chromium	1	mg/kg	6.3	48
Cobalt	1	mg/kg	3.2	6.7
Copper	1	mg/kg	6.3	280
Iron	1	mg/kg	250	20000
Lead	4	mg/kg	25	3100

Sample ID: B5 4.5'-5.5' | **Collection Date: 2/7/2019**
Lab#: AD09023-005 | **Receipt Date: 2/11/2019**
Matrix: Soil

Magnesium	**1**	**mg/kg**	**630**	**3700**
Manganese	**1**	**mg/kg**	**13**	**520**
Nickel	**1**	**mg/kg**	**6.3**	**25**
Potassium	**1**	**mg/kg**	**630**	**1100**
Sodium	1	mg/kg	320	ND
Vanadium	**2**	**mg/kg**	**25**	**33**
Zinc	**2**	**mg/kg**	**25**	**1300**

TAL Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	1.0	ND
Arsenic	**1**	**mg/kg**	**0.25**	**16**
Beryllium	**2**	**mg/kg**	**0.51**	**0.51**
Cadmium	**1**	**mg/kg**	**0.51**	**2.0**
Selenium	1	mg/kg	2.5	ND
Silver	**1**	**mg/kg**	**0.25**	**0.66**
Thallium	1	mg/kg	0.51	ND

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.988	mg/kg	0.0025	ND
1,1-Dichloroethane	0.988	mg/kg	0.0025	ND
1,1-Dichloroethene	0.988	mg/kg	0.0025	ND
1,2,4-Trimethylbenzene	0.988	mg/kg	0.0013	ND
1,2-Dichlorobenzene	0.988	mg/kg	0.0025	ND
1,2-Dichloroethane	0.988	mg/kg	0.0025	ND
1,3,5-Trimethylbenzene	0.988	mg/kg	0.0013	ND
1,3-Dichlorobenzene	0.988	mg/kg	0.0025	ND
1,4-Dichlorobenzene	0.988	mg/kg	0.0025	ND
1,4-Dioxane	0.988	mg/kg	0.13	ND
2-Butanone	0.988	mg/kg	0.0025	ND
4-Isopropyltoluene	0.988	mg/kg	0.0013	ND
Acetone	0.988	mg/kg	0.013	ND
Benzene	0.988	mg/kg	0.0013	ND
Carbon tetrachloride	0.988	mg/kg	0.0025	ND
Chlorobenzene	0.988	mg/kg	0.0025	ND
Chloroform	0.988	mg/kg	0.0025	ND
cis-1,2-Dichloroethene	0.988	mg/kg	0.0025	ND
Ethylbenzene	0.988	mg/kg	0.0013	ND
Isopropylbenzene	0.988	mg/kg	0.0013	ND
m&p-Xylenes	0.988	mg/kg	0.0013	ND
Methylene chloride	0.988	mg/kg	0.0025	ND
Methyl-t-butyl ether	0.988	mg/kg	0.0013	ND
Naphthalene	0.988	mg/kg	0.0013	ND
n-Butylbenzene	0.988	mg/kg	0.0013	ND
n-Propylbenzene	0.988	mg/kg	0.0013	ND
o-Xylene	0.988	mg/kg	0.0013	ND
sec-Butylbenzene	0.988	mg/kg	0.0013	ND
t-Butylbenzene	0.988	mg/kg	0.0013	ND
Tetrachloroethene	0.988	mg/kg	0.0025	ND
Toluene	0.988	mg/kg	0.0013	ND
trans-1,2-Dichloroethene	0.988	mg/kg	0.0025	ND
Trichloroethene	0.988	mg/kg	0.0025	ND
Vinyl chloride	0.988	mg/kg	0.0025	ND
Xylenes (Total)	0.988	mg/kg	0.0013	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	30.51	30	68	122	102	
Dibromofluoromethane	31.48	30	63	140	105	
Bromofluorobenzene	34.22	30	64	129	114	
1,2-Dichloroethane-d4	30.39	30	63	143	101	

Sample ID: B6 4'-5' | **Collection Date:** 2/7/2019
Lab#: AD09023-006 | **Receipt Date:** 2/11/2019
Matrix: Soil

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**86**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	1	mg/kg	0.28	ND

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	**1**	**mg/kg**	**0.097**	**0.27**

PAH Compounds 8270

Analyte	DF	Units	RL	Result
Acenaphthene	**30**	**mg/kg**	**1.2**	**2.5**
Acenaphthylene	30	mg/kg	1.2	ND
Anthracene	**30**	**mg/kg**	**1.2**	**6.2**
Benzo[a]anthracene	**30**	**mg/kg**	**1.2**	**24**
Benzo[a]pyrene	**30**	**mg/kg**	**1.2**	**17**
Benzo[b]fluoranthene	**30**	**mg/kg**	**1.2**	**21**
Benzo[g,h,i]perylene	**30**	**mg/kg**	**1.2**	**8.5**
Benzo[k]fluoranthene	**30**	**mg/kg**	**1.2**	**6.3**
Chrysene	**30**	**mg/kg**	**1.2**	**22**
Dibenzo[a,h]anthracene	**30**	**mg/kg**	**1.2**	**2.6**
Fluoranthene	**30**	**mg/kg**	**1.2**	**40**
Fluorene	**30**	**mg/kg**	**1.2**	**2.1**
Indeno[1,2,3-cd]pyrene	**30**	**mg/kg**	**1.2**	**7.6**
Naphthalene	30	mg/kg	0.29	ND
Phenanthrene	**30**	**mg/kg**	**1.2**	**36**
Pyrene	**30**	**mg/kg**	**1.2**	**54**

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	0.00	50	58	148	0	Sb8
Phenol-d5	0.00	100	49	129	0	
Nitrobenzene-d5	0.00	50	52	129	0	Sb8
2-Fluorophenol	0.00	100	43	128	0	
2-Fluorobiphenyl	0.00	50	58	125	0	Sb8
2,4,6-Tribromophenol	0.00	100	54	145	0	

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	1	mg/kg	0.029	ND
Aroclor-1016	1	mg/kg	0.029	ND
Aroclor-1221	1	mg/kg	0.029	ND
Aroclor-1232	1	mg/kg	0.029	ND
Aroclor-1242	1	mg/kg	0.029	ND
Aroclor-1248	1	mg/kg	0.029	ND
Aroclor-1254	1	mg/kg	0.029	ND
Aroclor-1260	1	mg/kg	0.029	ND
Aroclor-1262	1	mg/kg	0.029	ND
Aroclor-1268	1	mg/kg	0.029	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	102.39	100	37	141	102	
TCMX-Surrogate	81.15	100	37	141	81	
DCB-Surrogate	96.34	100	34	146	96	
DCB-Surrogate	79.33	100	34	146	79	

TAL Metals 6010D

Analyte	DF	Units	RL	Result
Aluminum	**1**	**mg/kg**	**230**	**13000**
Barium	**1**	**mg/kg**	**12**	**180**
Calcium	**5**	**mg/kg**	**5800**	**83000**
Chromium	**1**	**mg/kg**	**5.8**	**19**
Cobalt	**1**	**mg/kg**	**2.9**	**5.2**
Copper	**1**	**mg/kg**	**5.8**	**97**
Iron	**1**	**mg/kg**	**230**	**14000**
Lead	**1**	**mg/kg**	**5.8**	**250**

Sample ID: B6 4'-5' **Collection Date:** 2/7/2019
Lab#: AD09023-006 **Receipt Date:** 2/11/2019
Matrix: Soil

Magnesium	**1**	**mg/kg**	**580**	**8100**
Manganese	**1**	**mg/kg**	**12**	**400**
Nickel	**1**	**mg/kg**	**5.8**	**15**
Potassium	**1**	**mg/kg**	**580**	**1700**
Sodium	**1**	**mg/kg**	**290**	**660**
Vanadium	**1**	**mg/kg**	**12**	**27**
Zinc	**1**	**mg/kg**	**12**	**130**

TAL Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.93	ND
Arsenic	**1**	**mg/kg**	**0.23**	**4.6**
Beryllium	1	mg/kg	0.23	ND
Cadmium	1	mg/kg	0.47	ND
Selenium	1	mg/kg	2.3	ND
Silver	1	mg/kg	0.23	ND
Thallium	1	mg/kg	0.47	ND

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.986	mg/kg	0.0023	ND
1,1-Dichloroethane	0.986	mg/kg	0.0023	ND
1,1-Dichloroethene	0.986	mg/kg	0.0023	ND
1,2,4-Trimethylbenzene	0.986	mg/kg	0.0011	ND
1,2-Dichlorobenzene	0.986	mg/kg	0.0023	ND
1,2-Dichloroethane	0.986	mg/kg	0.0023	ND
1,3,5-Trimethylbenzene	0.986	mg/kg	0.0011	ND
1,3-Dichlorobenzene	0.986	mg/kg	0.0023	ND
1,4-Dichlorobenzene	0.986	mg/kg	0.0023	ND
1,4-Dioxane	0.986	mg/kg	0.11	ND
2-Butanone	0.986	mg/kg	0.0023	ND
4-Isopropyltoluene	0.986	mg/kg	0.0011	ND
Acetone	0.986	mg/kg	0.011	ND
Benzene	0.986	mg/kg	0.0011	ND
Carbon tetrachloride	0.986	mg/kg	0.0023	ND
Chlorobenzene	0.986	mg/kg	0.0023	ND
Chloroform	0.986	mg/kg	0.0023	ND
cis-1,2-Dichloroethene	0.986	mg/kg	0.0023	ND
Ethylbenzene	0.986	mg/kg	0.0011	ND
Isopropylbenzene	0.986	mg/kg	0.0011	ND
m&p-Xylenes	0.986	mg/kg	0.0011	ND
Methylene chloride	0.986	mg/kg	0.0023	ND
Methyl-t-butyl ether	0.986	mg/kg	0.0011	ND
Naphthalene	**0.986**	**mg/kg**	**0.0011**	**0.019**
n-Butylbenzene	0.986	mg/kg	0.0011	ND
n-Propylbenzene	0.986	mg/kg	0.0011	ND
o-Xylene	0.986	mg/kg	0.0011	ND
sec-Butylbenzene	0.986	mg/kg	0.0011	ND
t-Butylbenzene	0.986	mg/kg	0.0011	ND
Tetrachloroethene	0.986	mg/kg	0.0023	ND
Toluene	0.986	mg/kg	0.0011	ND
trans-1,2-Dichloroethene	0.986	mg/kg	0.0023	ND
Trichloroethene	0.986	mg/kg	0.0023	ND
Vinyl chloride	0.986	mg/kg	0.0023	ND
Xylenes (Total)	0.986	mg/kg	0.0011	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.44	30	68	122	95	
Dibromofluoromethane	30.65	30	63	140	102	
Bromofluorobenzene	31.83	30	64	129	106	
1,2-Dichloroethane-d4	30.16	30	63	143	101	

Sample ID: B7 7'-8' | **Collection Date:** 2/8/2019
Lab#: AD09023-007 | **Receipt Date:** 2/11/2019
Matrix: Soil

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**86**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	1	mg/kg	0.28	ND

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.097	ND

PAH Compounds 8270

Analyte	DF	Units	RL	Result
Acenaphthene	1	mg/kg	0.039	ND
Acenaphthylene	1	mg/kg	0.039	ND
Anthracene	**1**	**mg/kg**	**0.039**	**0.053**
Benzo[a]anthracene	**1**	**mg/kg**	**0.039**	**0.15**
Benzo[a]pyrene	**1**	**mg/kg**	**0.039**	**0.12**
Benzo[b]fluoranthene	**1**	**mg/kg**	**0.039**	**0.18**
Benzo[g,h,i]perylene	**1**	**mg/kg**	**0.039**	**0.085**
Benzo[k]fluoranthene	**1**	**mg/kg**	**0.039**	**0.054**
Chrysene	**1**	**mg/kg**	**0.039**	**0.14**
Dibenzo[a,h]anthracene	1	mg/kg	0.039	ND
Fluoranthene	**1**	**mg/kg**	**0.039**	**0.30**
Fluorene	1	mg/kg	0.039	ND
Indeno[1,2,3-cd]pyrene	**1**	**mg/kg**	**0.039**	**0.076**
Naphthalene	1	mg/kg	0.0097	ND
Phenanthrene	**1**	**mg/kg**	**0.039**	**0.25**
Pyrene	**1**	**mg/kg**	**0.039**	**0.32**

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	41.21	50	58	148	82	
Phenol-d5	70.99	100	49	129	71	
Nitrobenzene-d5	33.07	50	52	129	66	
2-Fluorophenol	64.48	100	43	128	64	
2-Fluorobiphenyl	35.20	50	58	125	70	
2,4,6-Tribromophenol	73.40	100	54	145	73	

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	1	mg/kg	0.029	ND
Aroclor-1016	1	mg/kg	0.029	ND
Aroclor-1221	1	mg/kg	0.029	ND
Aroclor-1232	1	mg/kg	0.029	ND
Aroclor-1242	1	mg/kg	0.029	ND
Aroclor-1248	1	mg/kg	0.029	ND
Aroclor-1254	1	mg/kg	0.029	ND
Aroclor-1260	1	mg/kg	0.029	ND
Aroclor-1262	1	mg/kg	0.029	ND
Aroclor-1268	1	mg/kg	0.029	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	118.33	100	37	141	118	
TCMX-Surrogate	97.91	100	37	141	98	
DCB-Surrogate	105.16	100	34	146	105	
DCB-Surrogate	84.62	100	34	146	85	

TAL Metals 6010D

Analyte	DF	Units	RL	Result
Aluminum	**1**	**mg/kg**	**230**	**9100**
Barium	**1**	**mg/kg**	**12**	**170**
Calcium	**1**	**mg/kg**	**1200**	**8900**
Chromium	**1**	**mg/kg**	**5.8**	**22**
Cobalt	**1**	**mg/kg**	**2.9**	**10**
Copper	**1**	**mg/kg**	**5.8**	**50**
Iron	**1**	**mg/kg**	**230**	**25000**
Lead	**1**	**mg/kg**	**5.8**	**190**

Sample ID: B7 7'-8' **Collection Date: 2/8/2019**
Lab#: AD09023-007 **Receipt Date: 2/11/2019**
Matrix: Soil

Magnesium	**1**	**mg/kg**	**580**	**3900**
Manganese	**1**	**mg/kg**	**12**	**390**
Nickel	**1**	**mg/kg**	**5.8**	**29**
Potassium	**1**	**mg/kg**	**580**	**3300**
Sodium	1	mg/kg	290	ND
Vanadium	**1**	**mg/kg**	**12**	**32**
Zinc	**1**	**mg/kg**	**12**	**140**

TAL Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.93	ND
Arsenic	**1**	**mg/kg**	**0.23**	**4.9**
Beryllium	**1**	**mg/kg**	**0.23**	**0.27**
Cadmium	1	mg/kg	0.47	ND
Selenium	1	mg/kg	2.3	ND
Silver	1	mg/kg	0.23	ND
Thallium	1	mg/kg	0.47	ND

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.962	mg/kg	0.0022	ND
1,1-Dichloroethane	0.962	mg/kg	0.0022	ND
1,1-Dichloroethene	0.962	mg/kg	0.0022	ND
1,2,4-Trimethylbenzene	0.962	mg/kg	0.0011	ND
1,2-Dichlorobenzene	0.962	mg/kg	0.0022	ND
1,2-Dichloroethane	0.962	mg/kg	0.0022	ND
1,3,5-Trimethylbenzene	0.962	mg/kg	0.0011	ND
1,3-Dichlorobenzene	0.962	mg/kg	0.0022	ND
1,4-Dichlorobenzene	0.962	mg/kg	0.0022	ND
1,4-Dioxane	0.962	mg/kg	0.11	ND
2-Butanone	0.962	mg/kg	0.0022	ND
4-Isopropyltoluene	0.962	mg/kg	0.0011	ND
Acetone	0.962	mg/kg	0.011	ND
Benzene	0.962	mg/kg	0.0011	ND
Carbon tetrachloride	0.962	mg/kg	0.0022	ND
Chlorobenzene	0.962	mg/kg	0.0022	ND
Chloroform	0.962	mg/kg	0.0022	ND
cis-1,2-Dichloroethene	0.962	mg/kg	0.0022	ND
Ethylbenzene	0.962	mg/kg	0.0011	ND
Isopropylbenzene	0.962	mg/kg	0.0011	ND
m&p-Xylenes	0.962	mg/kg	0.0011	ND
Methylene chloride	0.962	mg/kg	0.0022	ND
Methyl-t-butyl ether	0.962	mg/kg	0.0011	ND
Naphthalene	0.962	mg/kg	0.0011	ND
n-Butylbenzene	0.962	mg/kg	0.0011	ND
n-Propylbenzene	0.962	mg/kg	0.0011	ND
o-Xylene	0.962	mg/kg	0.0011	ND
sec-Butylbenzene	0.962	mg/kg	0.0011	ND
t-Butylbenzene	0.962	mg/kg	0.0011	ND
Tetrachloroethene	0.962	mg/kg	0.0022	ND
Toluene	0.962	mg/kg	0.0011	ND
trans-1,2-Dichloroethene	0.962	mg/kg	0.0022	ND
Trichloroethene	0.962	mg/kg	0.0022	ND
Vinyl chloride	0.962	mg/kg	0.0022	ND
Xylenes (Total)	0.962	mg/kg	0.0011	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.58	30	68	122	95	
Dibromofluoromethane	31.11	30	63	140	104	
Bromofluorobenzene	30.48	30	64	129	102	
1,2-Dichloroethane-d4	30.78	30	63	143	103	

Sample ID: B8 5'-6' | **Collection Date:** 2/8/2019
Lab#: AD09023-008 | **Receipt Date:** 2/11/2019
Matrix: Soil

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**87**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	**1**	**mg/kg**	**0.28**	**2.0**

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.096	ND

PAH Compounds 8270

Analyte	DF	Units	RL	Result
Acenaphthene	1	mg/kg	0.038	ND
Acenaphthylene	**1**	**mg/kg**	**0.038**	**0.10**
Anthracene	**1**	**mg/kg**	**0.038**	**0.11**
Benzo[a]anthracene	**1**	**mg/kg**	**0.038**	**0.47**
Benzo[a]pyrene	**1**	**mg/kg**	**0.038**	**0.37**
Benzo[b]fluoranthene	**1**	**mg/kg**	**0.038**	**0.45**
Benzo[g,h,i]perylene	**1**	**mg/kg**	**0.038**	**0.24**
Benzo[k]fluoranthene	**1**	**mg/kg**	**0.038**	**0.16**
Chrysene	**1**	**mg/kg**	**0.038**	**0.46**
Dibenzo[a,h]anthracene	**1**	**mg/kg**	**0.038**	**0.076**
Fluoranthene	**1**	**mg/kg**	**0.038**	**0.61**
Fluorene	1	mg/kg	0.038	ND
Indeno[1,2,3-cd]pyrene	**1**	**mg/kg**	**0.038**	**0.20**
Naphthalene	**1**	**mg/kg**	**0.0096**	**0.040**
Phenanthrene	**1**	**mg/kg**	**0.038**	**0.43**
Pyrene	**1**	**mg/kg**	**0.038**	**0.83**

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	46.15	50	58	148	92	
Phenol-d5	76.18	100	49	129	76	
Nitrobenzene-d5	37.05	50	52	129	74	
2-Fluorophenol	69.05	100	43	128	69	
2-Fluorobiphenyl	37.88	50	58	125	76	
2,4,6-Tribromophenol	85.64	100	54	145	86	

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	**1**	**mg/kg**	**0.029**	**0.071**
Aroclor-1016	1	mg/kg	0.029	ND
Aroclor-1221	1	mg/kg	0.029	ND
Aroclor-1232	1	mg/kg	0.029	ND
Aroclor-1242	1	mg/kg	0.029	ND
Aroclor-1248	1	mg/kg	0.029	ND
Aroclor-1254	1	mg/kg	0.029	ND
Aroclor-1260	**1**	**mg/kg**	**0.029**	**0.071**
Aroclor-1262	1	mg/kg	0.029	ND
Aroclor-1268	1	mg/kg	0.029	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	111.32	100	37	141	111	
TCMX-Surrogate	105.53	100	37	141	106	
DCB-Surrogate	132.77	100	34	146	133	
DCB-Surrogate	129.75	100	34	146	130	

TAL Metals 6010D

Analyte	DF	Units	RL	Result
Aluminum	**1**	**mg/kg**	**230**	**11000**
Barium	**1**	**mg/kg**	**11**	**1100**
Calcium	**1**	**mg/kg**	**1100**	**24000**
Chromium	**1**	**mg/kg**	**5.7**	**53**
Cobalt	**1**	**mg/kg**	**2.9**	**5.8**
Copper	**1**	**mg/kg**	**5.7**	**270**
Iron	**1**	**mg/kg**	**230**	**19000**
Lead	**1**	**mg/kg**	**5.7**	**910**

Sample ID: B8 5'-6' | **Collection Date: 2/8/2019**
Lab#: AD09023-008 | **Receipt Date: 2/11/2019**
Matrix: Soil

Magnesium	**1**	**mg/kg**	**570**	**3700**
Manganese	**1**	**mg/kg**	**11**	**400**
Nickel	**1**	**mg/kg**	**5.7**	**21**
Potassium	**1**	**mg/kg**	**570**	**2400**
Sodium	1	mg/kg	290	ND
Vanadium	**1**	**mg/kg**	**11**	**33**
Zinc	**1**	**mg/kg**	**11**	**500**

TAL Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.92	ND
Arsenic	**1**	**mg/kg**	**0.23**	**3.6**
Beryllium	2	mg/kg	0.46	ND
Cadmium	**1**	**mg/kg**	**0.46**	**2.2**
Selenium	1	mg/kg	2.3	ND
Silver	1	mg/kg	0.23	ND
Thallium	1	mg/kg	0.46	ND

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.958	mg/kg	0.0022	ND
1,1-Dichloroethane	0.958	mg/kg	0.0022	ND
1,1-Dichloroethene	0.958	mg/kg	0.0022	ND
1,2,4-Trimethylbenzene	0.958	mg/kg	0.0011	ND
1,2-Dichlorobenzene	0.958	mg/kg	0.0022	ND
1,2-Dichloroethane	0.958	mg/kg	0.0022	ND
1,3,5-Trimethylbenzene	0.958	mg/kg	0.0011	ND
1,3-Dichlorobenzene	0.958	mg/kg	0.0022	ND
1,4-Dichlorobenzene	0.958	mg/kg	0.0022	ND
1,4-Dioxane	0.958	mg/kg	0.11	ND
2-Butanone	0.958	mg/kg	0.0022	ND
4-Isopropyltoluene	0.958	mg/kg	0.0011	ND
Acetone	0.958	mg/kg	0.011	ND
Benzene	0.958	mg/kg	0.0011	ND
Carbon tetrachloride	0.958	mg/kg	0.0022	ND
Chlorobenzene	0.958	mg/kg	0.0022	ND
Chloroform	0.958	mg/kg	0.0022	ND
cis-1,2-Dichloroethene	0.958	mg/kg	0.0022	ND
Ethylbenzene	0.958	mg/kg	0.0011	ND
Isopropylbenzene	0.958	mg/kg	0.0011	ND
m&p-Xylenes	**0.958**	**mg/kg**	**0.0011**	**0.0011**
Methylene chloride	0.958	mg/kg	0.0022	ND
Methyl-t-butyl ether	0.958	mg/kg	0.0011	ND
Naphthalene	0.958	mg/kg	0.0011	ND
n-Butylbenzene	0.958	mg/kg	0.0011	ND
n-Propylbenzene	0.958	mg/kg	0.0011	ND
o-Xylene	0.958	mg/kg	0.0011	ND
sec-Butylbenzene	0.958	mg/kg	0.0011	ND
t-Butylbenzene	0.958	mg/kg	0.0011	ND
Tetrachloroethene	0.958	mg/kg	0.0022	ND
Toluene	**0.958**	**mg/kg**	**0.0011**	**0.0021**
trans-1,2-Dichloroethene	0.958	mg/kg	0.0022	ND
Trichloroethene	0.958	mg/kg	0.0022	ND
Vinyl chloride	0.958	mg/kg	0.0022	ND
Xylenes (Total)	**0.958**	**mg/kg**	**0.0011**	**0.0011**

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	30.68	30	68	122	102	
Dibromofluoromethane	31.08	30	63	140	104	
Bromofluorobenzene	33.15	30	64	129	110	
1,2-Dichloroethane-d4	30.07	30	63	143	100	

Sample ID: B9 5' **Collection Date:** 2/8/2019
Lab#: AD09023-009 **Receipt Date:** 2/11/2019
Matrix: Soil

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**91**

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.956	mg/kg	0.0021	ND
1,1-Dichloroethane	0.956	mg/kg	0.0021	ND
1,1-Dichloroethene	0.956	mg/kg	0.0021	ND
1,2,4-Trimethylbenzene	0.956	mg/kg	0.0011	ND
1,2-Dichlorobenzene	0.956	mg/kg	0.0021	ND
1,2-Dichloroethane	0.956	mg/kg	0.0021	ND
1,3,5-Trimethylbenzene	0.956	mg/kg	0.0011	ND
1,3-Dichlorobenzene	0.956	mg/kg	0.0021	ND
1,4-Dichlorobenzene	0.956	mg/kg	0.0021	ND
1,4-Dioxane	0.956	mg/kg	0.11	ND
2-Butanone	0.956	mg/kg	0.0021	ND
4-Isopropyltoluene	0.956	mg/kg	0.0011	ND
Acetone	**0.956**	**mg/kg**	**0.011**	**0.013**
Benzene	0.956	mg/kg	0.0011	ND
Carbon tetrachloride	0.956	mg/kg	0.0021	ND
Chlorobenzene	0.956	mg/kg	0.0021	ND
Chloroform	0.956	mg/kg	0.0021	ND
cis-1,2-Dichloroethene	0.956	mg/kg	0.0021	ND
Ethylbenzene	0.956	mg/kg	0.0011	ND
Isopropylbenzene	0.956	mg/kg	0.0011	ND
m&p-Xylenes	0.956	mg/kg	0.0011	ND
Methylene chloride	0.956	mg/kg	0.0021	ND
Methyl-t-butyl ether	0.956	mg/kg	0.0011	ND
Naphthalene	0.956	mg/kg	0.0011	ND
n-Butylbenzene	0.956	mg/kg	0.0011	ND
n-Propylbenzene	0.956	mg/kg	0.0011	ND
o-Xylene	0.956	mg/kg	0.0011	ND
sec-Butylbenzene	0.956	mg/kg	0.0011	ND
t-Butylbenzene	0.956	mg/kg	0.0011	ND
Tetrachloroethene	0.956	mg/kg	0.0021	ND
Toluene	0.956	mg/kg	0.0011	ND
trans-1,2-Dichloroethene	0.956	mg/kg	0.0021	ND
Trichloroethene	0.956	mg/kg	0.0021	ND
Vinyl chloride	0.956	mg/kg	0.0021	ND
Xylenes (Total)	0.956	mg/kg	0.0011	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.12	30	68	122	97	
Dibromofluoromethane	30.16	30	63	140	101	
Bromofluorobenzene	31.09	30	64	129	104	
1,2-Dichloroethane-d4	29.85	30	63	143	99	

Sample ID: B10 2'-3' **Collection Date: 2/8/2019**
Lab#: AD09023-010 **Receipt Date: 2/11/2019**
Matrix: Soil

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**87**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	1	mg/kg	0.28	ND

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.096	ND

PAH Compounds 8270

Analyte	DF	Units	RL	Result
Acenaphthene	1	mg/kg	0.038	ND
Acenaphthylene	1	mg/kg	0.038	ND
Anthracene	1	mg/kg	0.038	ND
Benzo[a]anthracene	**1**	**mg/kg**	**0.038**	**0.050**
Benzo[a]pyrene	**1**	**mg/kg**	**0.038**	**0.045**
Benzo[b]fluoranthene	**1**	**mg/kg**	**0.038**	**0.058**
Benzo[g,h,i]perylene	1	mg/kg	0.038	ND
Benzo[k]fluoranthene	1	mg/kg	0.038	ND
Chrysene	**1**	**mg/kg**	**0.038**	**0.048**
Dibenzo[a,h]anthracene	1	mg/kg	0.038	ND
Fluoranthene	**1**	**mg/kg**	**0.038**	**0.086**
Fluorene	1	mg/kg	0.038	ND
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.038	ND
Naphthalene	1	mg/kg	0.0096	ND
Phenanthrene	**1**	**mg/kg**	**0.038**	**0.072**
Pyrene	**1**	**mg/kg**	**0.038**	**0.10**

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	44.94	50	58	148	90	
Phenol-d5	76.79	100	49	129	77	
Nitrobenzene-d5	36.41	50	52	129	73	
2-Fluorophenol	73.00	100	43	128	73	
2-Fluorobiphenyl	37.23	50	58	125	74	
2,4,6-Tribromophenol	84.40	100	54	145	84	

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	1	mg/kg	0.029	ND
Aroclor-1016	1	mg/kg	0.029	ND
Aroclor-1221	1	mg/kg	0.029	ND
Aroclor-1232	1	mg/kg	0.029	ND
Aroclor-1242	1	mg/kg	0.029	ND
Aroclor-1248	1	mg/kg	0.029	ND
Aroclor-1254	1	mg/kg	0.029	ND
Aroclor-1260	1	mg/kg	0.029	ND
Aroclor-1262	1	mg/kg	0.029	ND
Aroclor-1268	1	mg/kg	0.029	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	109.98	100	37	141	110	
TCMX-Surrogate	93.62	100	37	141	94	
DCB-Surrogate	99.87	100	34	146	100	
DCB-Surrogate	81.09	100	34	146	81	

TAL Metals 6010D

Analyte	DF	Units	RL	Result
Aluminum	**1**	**mg/kg**	**230**	**18000**
Barium	**1**	**mg/kg**	**11**	**42**
Calcium	**1**	**mg/kg**	**1100**	**1700**
Chromium	**1**	**mg/kg**	**5.7**	**30**
Cobalt	**1**	**mg/kg**	**2.9**	**8.9**
Copper	**1**	**mg/kg**	**5.7**	**17**
Iron	**1**	**mg/kg**	**230**	**24000**
Lead	**1**	**mg/kg**	**5.7**	**21**

Sample ID: B10 2'-3' **Collection Date: 2/8/2019**
Lab#: AD09023-010 **Receipt Date: 2/11/2019**
Matrix: Soil

Magnesium	**1**	**mg/kg**	**570**	**3400**
Manganese	**1**	**mg/kg**	**11**	**210**
Nickel	**1**	**mg/kg**	**5.7**	**18**
Potassium	**1**	**mg/kg**	**570**	**960**
Sodium	1	mg/kg	290	ND
Vanadium	**1**	**mg/kg**	**11**	**34**
Zinc	**1**	**mg/kg**	**11**	**73**

TAL Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.92	ND
Arsenic	**1**	**mg/kg**	**0.23**	**5.7**
Beryllium	4	mg/kg	0.92	ND
Cadmium	1	mg/kg	0.46	ND
Selenium	1	mg/kg	2.3	ND
Silver	1	mg/kg	0.23	ND
Thallium	1	mg/kg	0.46	ND

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.998	mg/kg	0.0023	ND
1,1-Dichloroethane	0.998	mg/kg	0.0023	ND
1,1-Dichloroethene	0.998	mg/kg	0.0023	ND
1,2,4-Trimethylbenzene	0.998	mg/kg	0.0011	ND
1,2-Dichlorobenzene	0.998	mg/kg	0.0023	ND
1,2-Dichloroethane	0.998	mg/kg	0.0023	ND
1,3,5-Trimethylbenzene	0.998	mg/kg	0.0011	ND
1,3-Dichlorobenzene	0.998	mg/kg	0.0023	ND
1,4-Dichlorobenzene	0.998	mg/kg	0.0023	ND
1,4-Dioxane	0.998	mg/kg	0.11	ND
2-Butanone	0.998	mg/kg	0.0023	ND
4-Isopropyltoluene	0.998	mg/kg	0.0011	ND
Acetone	0.998	mg/kg	0.011	ND
Benzene	0.998	mg/kg	0.0011	ND
Carbon tetrachloride	0.998	mg/kg	0.0023	ND
Chlorobenzene	0.998	mg/kg	0.0023	ND
Chloroform	0.998	mg/kg	0.0023	ND
cis-1,2-Dichloroethene	0.998	mg/kg	0.0023	ND
Ethylbenzene	0.998	mg/kg	0.0011	ND
Isopropylbenzene	0.998	mg/kg	0.0011	ND
m&p-Xylenes	0.998	mg/kg	0.0011	ND
Methylene chloride	0.998	mg/kg	0.0023	ND
Methyl-t-butyl ether	0.998	mg/kg	0.0011	ND
Naphthalene	0.998	mg/kg	0.0011	ND
n-Butylbenzene	0.998	mg/kg	0.0011	ND
n-Propylbenzene	0.998	mg/kg	0.0011	ND
o-Xylene	0.998	mg/kg	0.0011	ND
sec-Butylbenzene	0.998	mg/kg	0.0011	ND
t-Butylbenzene	0.998	mg/kg	0.0011	ND
Tetrachloroethene	0.998	mg/kg	0.0023	ND
Toluene	0.998	mg/kg	0.0011	ND
trans-1,2-Dichloroethene	0.998	mg/kg	0.0023	ND
Trichloroethene	0.998	mg/kg	0.0023	ND
Vinyl chloride	0.998	mg/kg	0.0023	ND
Xylenes (Total)	0.998	mg/kg	0.0011	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.95	30	68	122	96	
Dibromofluoromethane	30.40	30	63	140	101	
Bromofluorobenzene	30.25	30	64	129	101	
1,2-Dichloroethane-d4	30.62	30	63	143	102	

Sample ID: MWA
Lab#: AD09023-011
Matrix: Aqueous

Collection Date: 2/7/2019
Receipt Date: 2/11/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trimethylbenzene	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,3,5-Trimethylbenzene	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
4-Isopropyltoluene	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
Naphthalene	1	ug/l	1.0	ND
n-Butylbenzene	1	ug/l	1.0	ND
n-Propylbenzene	1	ug/l	1.0	ND
o-Xylene	1	ug/l	1.0	ND
sec-Butylbenzene	1	ug/l	1.0	ND
t-Butylbenzene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	31.07	30	79	111	104	
Dibromofluoromethane	28.38	30	73	131	95	
Bromofluorobenzene	30.71	30	82	112	102	
1,2-Dichloroethane-d4	28.16	30	78	128	94	

Sample ID: B1GW
Lab#: AD09023-012
Matrix: Aqueous

Collection Date: 2/7/2019
Receipt Date: 2/11/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trimethylbenzene	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,3,5-Trimethylbenzene	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
4-Isopropyltoluene	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
Naphthalene	1	ug/l	1.0	ND
n-Butylbenzene	1	ug/l	1.0	ND
n-Propylbenzene	1	ug/l	1.0	ND
o-Xylene	1	ug/l	1.0	ND
sec-Butylbenzene	1	ug/l	1.0	ND
t-Butylbenzene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	31.24	30	79	111	104	
Dibromofluoromethane	31.18	30	73	131	104	
Bromofluorobenzene	29.12	30	82	112	97	
1,2-Dichloroethane-d4	29.69	30	78	128	99	

Sample ID: B2GW **Collection Date: 2/7/2019**
Lab#: AD09023-013 **Receipt Date: 2/11/2019**
Matrix: Aqueous

PAH Compounds 8270

Analyte	DF	Units	RL	Result
Acenaphthene	1	ug/l	2.0	ND
Acenaphthylene	1	ug/l	2.0	ND
Anthracene	1	ug/l	2.0	ND
Benzo[a]anthracene	1	ug/l	2.0	ND
Benzo[a]pyrene	1	ug/l	2.0	ND
Benzo[b]fluoranthene	1	ug/l	2.0	ND
Benzo[g,h,i]perylene	1	ug/l	2.0	ND
Benzo[k]fluoranthene	1	ug/l	2.0	ND
Chrysene	1	ug/l	2.0	ND
Dibenzo[a,h]anthracene	1	ug/l	2.0	ND
Fluoranthene	1	ug/l	2.0	ND
Fluorene	1	ug/l	2.0	ND
Indeno[1,2,3-cd]pyrene	1	ug/l	2.0	ND
Naphthalene	**1**	**ug/l**	**0.50**	**4.3**
Phenanthrene	1	ug/l	2.0	ND
Pyrene	1	ug/l	2.0	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	60.34	50	55	146	121	
Phenol-d5	0.00	100	27	115	0	
Nitrobenzene-d5	56.53	50	51	139	113	
2-Fluorophenol	0.00	100	29	113	0	
2-Fluorobiphenyl	48.14	50	53	129	96	
2,4,6-Tribromophenol	0.00	100	54	149	0	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trimethylbenzene	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,3,5-Trimethylbenzene	**1**	**ug/l**	**1.0**	**1.9**
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
4-Isopropyltoluene	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	**1**	**ug/l**	**0.50**	**2.7**
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	**1**	**ug/l**	**1.0**	**1.8**
Chloroform	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
Ethylbenzene	**1**	**ug/l**	**1.0**	**2.9**
Isopropylbenzene	**1**	**ug/l**	**1.0**	**28**
m&p-Xylenes	**1**	**ug/l**	**1.0**	**8.3**
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
Naphthalene	**1**	**ug/l**	**1.0**	**9.3**
n-Butylbenzene	**1**	**ug/l**	**1.0**	**16**
n-Propylbenzene	**1**	**ug/l**	**1.0**	**47**
o-Xylene	**1**	**ug/l**	**1.0**	**2.5**
sec-Butylbenzene	**1**	**ug/l**	**1.0**	**5.7**
t-Butylbenzene	1	ug/l	1.0	ND
Tetrachloroethene	**1**	**ug/l**	**1.0**	**2.5**
Toluene	**1**	**ug/l**	**1.0**	**2.4**
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	**1**	**ug/l**	**1.0**	**11**

Sample ID: B2GW
Lab#: AD09023-013
Matrix: Aqueous

Collection Date: 2/7/2019
Receipt Date: 2/11/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	31.30	30	79	111	104	
Dibromofluoromethane	27.68	30	73	131	92	
Bromofluorobenzene	29.12	30	82	112	97	
1,2-Dichloroethane-d4	29.89	30	78	128	100	

Sample ID: B3GW | **Collection Date: 2/7/2019**
Lab#: AD09023-014 | **Receipt Date: 2/11/2019**
Matrix: Aqueous

PAH Compounds 8270

Analyte	DF	Units	RL	Result
Acenaphthene	**1**	**ug/l**	**2.0**	**2.5**
Acenaphthylene	1	ug/l	2.0	ND
Anthracene	1	ug/l	2.0	ND
Benzo[a]anthracene	1	ug/l	2.0	ND
Benzo[a]pyrene	1	ug/l	2.0	ND
Benzo[b]fluoranthene	1	ug/l	2.0	ND
Benzo[g,h,i]perylene	1	ug/l	2.0	ND
Benzo[k]fluoranthene	1	ug/l	2.0	ND
Chrysene	1	ug/l	2.0	ND
Dibenzo[a,h]anthracene	1	ug/l	2.0	ND
Fluoranthene	**1**	**ug/l**	**2.0**	**5.1**
Fluorene	**1**	**ug/l**	**2.0**	**5.1**
Indeno[1,2,3-cd]pyrene	1	ug/l	2.0	ND
Naphthalene	**1**	**ug/l**	**0.50**	**12**
Phenanthrene	**1**	**ug/l**	**2.0**	**6.0**
Pyrene	**1**	**ug/l**	**2.0**	**4.5**

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	57.79	50	55	146	116	
Phenol-d5	1.15	100	27	115	1	
Nitrobenzene-d5	51.07	50	51	139	102	
2-Fluorophenol	0.00	100	29	113	0	
2-Fluorobiphenyl	45.91	50	53	129	92	
2,4,6-Tribromophenol	0.00	100	54	149	0	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trimethylbenzene	**1**	**ug/l**	**1.0**	**5.7**
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,3,5-Trimethylbenzene	**1**	**ug/l**	**1.0**	**1.8**
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
4-Isopropyltoluene	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
Ethylbenzene	**1**	**ug/l**	**1.0**	**2.7**
Isopropylbenzene	**1**	**ug/l**	**1.0**	**8.3**
m&p-Xylenes	**1**	**ug/l**	**1.0**	**9.3**
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
Naphthalene	**1**	**ug/l**	**1.0**	**10**
n-Butylbenzene	**1**	**ug/l**	**1.0**	**12**
n-Propylbenzene	**1**	**ug/l**	**1.0**	**24**
o-Xylene	**1**	**ug/l**	**1.0**	**1.7**
sec-Butylbenzene	**1**	**ug/l**	**1.0**	**32**
t-Butylbenzene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	**1**	**ug/l**	**1.0**	**11**

Sample ID: B3GW
Lab#: AD09023-014
Matrix: Aqueous

Collection Date: 2/7/2019
Receipt Date: 2/11/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	31.34	30	79	111	104	
Dibromofluoromethane	28.56	30	73	131	95	
Bromofluorobenzene	29.96	30	82	112	100	
1,2-Dichloroethane-d4	29.68	30	78	128	99	

Sample ID: B4GW **Collection Date: 2/7/2019**
Lab#: AD09023-015 **Receipt Date: 2/11/2019**
Matrix: Aqueous

PAH Compounds 8270

Analyte	DF	Units	RL	Result
Acenaphthene	1	ug/l	2.0	ND
Acenaphthylene	1	ug/l	2.0	ND
Anthracene	1	ug/l	2.0	ND
Benzo[a]anthracene	1	ug/l	2.0	ND
Benzo[a]pyrene	1	ug/l	2.0	ND
Benzo[b]fluoranthene	1	ug/l	2.0	ND
Benzo[g,h,i]perylene	1	ug/l	2.0	ND
Benzo[k]fluoranthene	1	ug/l	2.0	ND
Chrysene	1	ug/l	2.0	ND
Dibenzo[a,h]anthracene	1	ug/l	2.0	ND
Fluoranthene	1	ug/l	2.0	ND
Fluorene	1	ug/l	2.0	ND
Indeno[1,2,3-cd]pyrene	1	ug/l	2.0	ND
Naphthalene	1	ug/l	0.50	ND
Phenanthrene	1	ug/l	2.0	ND
Pyrene	1	ug/l	2.0	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	54.67	50	55	146	109	
Phenol-d5	0.00	100	27	115	0	
Nitrobenzene-d5	32.68	50	51	139	65	
2-Fluorophenol	0.00	100	29	113	0	
2-Fluorobiphenyl	37.16	50	53	129	74	
2,4,6-Tribromophenol	0.00	100	54	149	0	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trimethylbenzene	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,3,5-Trimethylbenzene	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	**1**	**ug/l**	**1.0**	**4.7**
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
4-Isopropyltoluene	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
Naphthalene	1	ug/l	1.0	ND
n-Butylbenzene	1	ug/l	1.0	ND
n-Propylbenzene	1	ug/l	1.0	ND
o-Xylene	1	ug/l	1.0	ND
sec-Butylbenzene	1	ug/l	1.0	ND
t-Butylbenzene	1	ug/l	1.0	ND
Tetrachloroethene	**1**	**ug/l**	**1.0**	**6.0**
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: B4GW
Lab#: AD09023-015
Matrix: Aqueous

Collection Date: 2/7/2019
Receipt Date: 2/11/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	30.31	30	79	111	101	
Dibromofluoromethane	28.71	30	73	131	96	
Bromofluorobenzene	29.59	30	82	112	99	
1,2-Dichloroethane-d4	30.04	30	78	128	100	

Sample ID: B5GW
Lab#: AD09023-016
Matrix: Aqueous

Collection Date: 2/7/2019
Receipt Date: 2/11/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trimethylbenzene	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,3,5-Trimethylbenzene	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
4-Isopropyltoluene	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
Naphthalene	1	ug/l	1.0	ND
n-Butylbenzene	1	ug/l	1.0	ND
n-Propylbenzene	1	ug/l	1.0	ND
o-Xylene	1	ug/l	1.0	ND
sec-Butylbenzene	1	ug/l	1.0	ND
t-Butylbenzene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	30.73	30	79	111	102	
Dibromofluoromethane	31.78	30	73	131	106	
Bromofluorobenzene	29.80	30	82	112	99	
1,2-Dichloroethane-d4	31.43	30	78	128	105	

Sample ID: B6GW | **Collection Date: 2/7/2019**
Lab#: AD09023-017 | **Receipt Date: 2/11/2019**
Matrix: Aqueous

PAH Compounds 8270

Analyte	DF	Units	RL	Result
Acenaphthene	**1**	**ug/l**	**2.0**	**3.5**
Acenaphthylene	1	ug/l	2.0	ND
Anthracene	**1**	**ug/l**	**2.0**	**6.5**
Benzo[a]anthracene	**1**	**ug/l**	**2.0**	**26**
Benzo[a]pyrene	**1**	**ug/l**	**2.0**	**18**
Benzo[b]fluoranthene	**1**	**ug/l**	**2.0**	**21**
Benzo[g,h,i]perylene	**1**	**ug/l**	**2.0**	**12**
Benzo[k]fluoranthene	**1**	**ug/l**	**2.0**	**8.3**
Chrysene	**1**	**ug/l**	**2.0**	**23**
Dibenzo[a,h]anthracene	**1**	**ug/l**	**2.0**	**3.4**
Fluoranthene	**1**	**ug/l**	**2.0**	**36**
Fluorene	**1**	**ug/l**	**2.0**	**2.7**
Indeno[1,2,3-cd]pyrene	**1**	**ug/l**	**2.0**	**9.4**
Naphthalene	**1**	**ug/l**	**0.50**	**1.1**
Phenanthrene	**1**	**ug/l**	**2.0**	**33**
Pyrene	**1**	**ug/l**	**2.0**	**56**

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	56.27	50	55	146	113	
Phenol-d5	0.00	100	27	115	0	
Nitrobenzene-d5	41.55	50	51	139	83	
2-Fluorophenol	0.00	100	29	113	0	
2-Fluorobiphenyl	42.13	50	53	129	84	
2,4,6-Tribromophenol	0.00	100	54	149	0	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trimethylbenzene	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,3,5-Trimethylbenzene	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
4-Isopropyltoluene	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
Naphthalene	**1**	**ug/l**	**1.0**	**1.3**
n-Butylbenzene	1	ug/l	1.0	ND
n-Propylbenzene	1	ug/l	1.0	ND
o-Xylene	1	ug/l	1.0	ND
sec-Butylbenzene	1	ug/l	1.0	ND
t-Butylbenzene	1	ug/l	1.0	ND
Tetrachloroethene	**1**	**ug/l**	**1.0**	**2.2**
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: B6GW
Lab#: AD09023-017
Matrix: Aqueous

Collection Date: 2/7/2019
Receipt Date: 2/11/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	31.75	30	79	111	106	
Dibromofluoromethane	28.78	30	73	131	96	
Bromofluorobenzene	30.07	30	82	112	100	
1,2-Dichloroethane-d4	30.41	30	78	128	101	

Sample ID: B7GW
Lab#: AD09023-018
Matrix: Aqueous

Collection Date: 2/8/2019
Receipt Date: 2/11/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trimethylbenzene	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,3,5-Trimethylbenzene	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
4-Isopropyltoluene	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
Naphthalene	1	ug/l	1.0	ND
n-Butylbenzene	1	ug/l	1.0	ND
n-Propylbenzene	1	ug/l	1.0	ND
o-Xylene	1	ug/l	1.0	ND
sec-Butylbenzene	1	ug/l	1.0	ND
t-Butylbenzene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	31.02	30	79	111	103	
Dibromofluoromethane	28.78	30	73	131	96	
Bromofluorobenzene	29.34	30	82	112	98	
1,2-Dichloroethane-d4	29.21	30	78	128	97	

Sample ID: B8GW
Lab#: AD09023-019
Matrix: Aqueous

Collection Date: 2/8/2019
Receipt Date: 2/11/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trimethylbenzene	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,3,5-Trimethylbenzene	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
4-Isopropyltoluene	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
Naphthalene	**1**	**ug/l**	**1.0**	**11**
n-Butylbenzene	1	ug/l	1.0	ND
n-Propylbenzene	1	ug/l	1.0	ND
o-Xylene	1	ug/l	1.0	ND
sec-Butylbenzene	1	ug/l	1.0	ND
t-Butylbenzene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	31.71	30	79	111	106	
Dibromofluoromethane	30.77	30	73	131	103	
Bromofluorobenzene	29.96	30	82	112	100	
1,2-Dichloroethane-d4	30.64	30	78	128	102	

Sample ID: B9GW
Lab#: AD09023-020
Matrix: Aqueous

Collection Date: 2/8/2019
Receipt Date: 2/11/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trimethylbenzene	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,3,5-Trimethylbenzene	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
4-Isopropyltoluene	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
Naphthalene	1	ug/l	1.0	ND
n-Butylbenzene	1	ug/l	1.0	ND
n-Propylbenzene	1	ug/l	1.0	ND
o-Xylene	1	ug/l	1.0	ND
sec-Butylbenzene	1	ug/l	1.0	ND
t-Butylbenzene	1	ug/l	1.0	ND
Tetrachloroethene	**1**	**ug/l**	**1.0**	**4.1**
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	32.13	30	79	111	107	
Dibromofluoromethane	29.86	30	73	131	100	
Bromofluorobenzene	30.29	30	82	112	101	
1,2-Dichloroethane-d4	29.33	30	78	128	98	

Sample ID: B10GW
Lab#: AD09023-021
Matrix: Aqueous

Collection Date: 2/8/2019
Receipt Date: 2/11/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trimethylbenzene	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,3,5-Trimethylbenzene	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
4-Isopropyltoluene	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
Naphthalene	1	ug/l	1.0	ND
n-Butylbenzene	1	ug/l	1.0	ND
n-Propylbenzene	1	ug/l	1.0	ND
o-Xylene	1	ug/l	1.0	ND
sec-Butylbenzene	1	ug/l	1.0	ND
t-Butylbenzene	1	ug/l	1.0	ND
Tetrachloroethene	**1**	**ug/l**	**1.0**	**4.1**
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	31.97	30	79	111	107	
Dibromofluoromethane	29.23	30	73	131	97	
Bromofluorobenzene	29.74	30	82	112	99	
1,2-Dichloroethane-d4	29.89	30	78	128	100	

Hampton-Clarke, Inc. (WBE/DBE/SBE)

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Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458
Service Center: 137-D Gaither Drive, Mount Laurel, New Jersey 08054
Ph (Service Center): 856-780-6057 Fax: 856-780-6056
NELAC/NJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved

HC Hampton-Clarke WBE/DBE/SBE 800-426-9992
A Women-Owned, Disadvantaged, Small Business Enterprise

CHAIN OF CUSTODY RECORD

Project # (Lab Use Only): 9021105

Customer Information

1a) Customer: GTE
Address: 98 Nokomis Ave, Lk Hiawatha, NJ 07034
1b) Email/Cell/Fax/Ph: frank940optonline.net
1c) Send Invoice to:
1d) Send Report to: Frank Galdun

Project Information

2a) Project: 2201 Queen Plaza North Long Island City NY
2b) Project Mgr: F Galdun
2c) Project Location (City/State):
2d) Quote/PO # (If Applicable):

3) Reporting Requirements (Please Circle)

Turnaround	Report Type	Electronic Data Deliv.
When Available:	(Summary) — circled	NJ Hazsite
1 Business Day (100%)*	Results + QC (Waste)	Excel Reg. NJ / NY / PA
2 Business Days (75%)*	Reduced:	EnviroData
3 Business Days (50%)*	[ ] NJ [ ] NY	EQuIS:
4 Business Days (35%)*	[ ] PA [ ] Other___	[ ] 4-File [ ] EZ
(5 Business Days (25%)) — circled	NJ Full / NY ASP CatB	[ ] NYDEC
8 Business Days (Stand.)	NY ASP CatA	[ ] Region 2 or 5
Other:		Other: PDF

* Expedited TAT Not Always Available. Please Check with Lab.

FOR LAB USE ONLY ↓
Batch #: AD09023

Matrix Codes
DW - Drinking Water S - Soil A - Air
GW - Ground Water SL - Sludge
WW - Waste Water OL - Oil
OT - Other (please specify under item 9, Comments)

===> Check If Contingent ===>   <=== Check If Contingent <===

7) Analysis (specify methods & parameter lists): EPA 8260 PART 375 & CP-51; EPA 8270 CP-51 ONLY; TAL METALS +Cr & As; PCBs

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample Date	6) Sample Time	Composite (C)	Grab (G)	EPA 8260 Part 375 & CP-51	EPA 8270 CP-51 Only	TAL Metals +Cr & As	PCBs	8) # of Bottles: None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other	9) Comments
001	B1 5'	SOIL	2/7/19	9:30		✓	✓				1								
002	B2 3'-5'	↓	↓	10:00		↓	✓	✓	✓	✓	3								
003	B3 6'	↓	↓	10:30		↓	✓				1								
004	B4 5.5-6.5'	↓	↓	10:45		↓	✓	✓	✓	✓	3								
005	B5 4.5-5.5'	↓	↓	12:30		↓	✓	✓	✓	✓	3								
006	B6 4'-5'	↓	↓	2:00		↓	✓	✓	✓	✓	3								
007	B7 7'-8'	↓	2/8/19	9:40		↓	✓	✓	✓	✓	3								
008	B8 5'-6'	↓	↓	10:15		↓	✓	✓	✓	✓	3								
009	B9 5'	↓	↓	11:50		↓	✓	(scribbled out)			1								
010	B10 2'-3'	↓	↓	1:20		↓	✓	✓	✓	✓	3								

10) Relinquished by:	Accepted by:	Date	Time
[signature]	[signature]	2/11/19	4:23

11) Sampler (print name): Frank Galdun Date: 2/8/19

Additional Notes

Comments, Notes, Special Requirements, HAZARDS

Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):
- [ ] BN or BNA (8270D SIM)
- [ ] VOC (8260C SIM or 8011)
- [ ] SPLP (BN, BNA, Metals)
- [ ] 1,4 Dioxane

For NJ LSRP projects, indicate which standards need to be met:
- [ ] NJDEP GWQS
- [ ] NJDEP SRS
- [ ] NJDEP SPLP
- [ ] Other (specify):

Check if applicable:
- [ ] Project-Specific Reporting Limits
- [ ] High Contaminant Concentrations
- [ ] NJ LSRP Project (also check boxes above/right)

Cooler Temperature: 3.1

Please note NUMBERED items. If not completed your analytical work may be delayed.
A fee of $5/sample will be assessed for storage should sample not be activated for any analysis.

Internal use: sampling plan (check box) HC [ ] or client [ ] FSP#

Hampton-Clarke, Inc. (WBE/DBE/SBE)

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CHAIN OF CUSTODY RECORD

Project # (Lab Use Only): 9021105

Page 2 of 3

NELAC/NJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved

3) Reporting Requirements (Please Circle)

Turnaround	Report Type	Electronic Data Deliv.
When Available:	Summary	NJ Hazsite
1 Business Day (100%)*	~~Results~~ + QC (Waste)	Excel Reg. NJ / NY / PA
2 Business Days (75%)*	Reduced:	EnviroData
3 Business Days (50%)*	[ ] NJ [ ] NY	EQuIS:
4 Business Days (35%)*	[ ] PA [ ] Other___	[ ] 4-File [ ] EZ
5 Business Days (25%)	NJ Full / NY ASP CatB	[ ] NYDEC
8 Business Days (Stand.)	NY ASP CatA	[ ] Region 2 or 5
Other:		Other: EDD

* Expedited TAT Not Always Available. Please Check with Lab.

Customer Information

1a) Customer: QFE LLC
Address: 58 NOKOMIS AVE LK HIAWATHA NJ 07034
1b) Email/Cell/Fax/Ph: FRANK4@OPTONLINE.NET
1c) Send Invoice to:
1d) Send Report to: FRANK GALDUN

Project Information

2a) Project: 22-01 QUEENS PLAZA NORTH LONG ISLAND CITY NY
2b) Project Mgr: F GALDUN
2c) Project Location (City/State):
2d) Quote/PO # (If Applicable):

FOR LAB USE ONLY ↓

Batch # ADO9023

===> Check If Contingent ===>

<=== Check If Contingent <===

Matrix Codes

DW - Drinking Water S - Soil A - Air
GW - Ground Water SL - Sludge
WW - Waste Water OL - Oil
OT - Other (please specify under item 9, Comments)

7) Analysis (specify methods & parameter lists)

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample Date	6) Sample Time	Sample Type: Composite (C)	Sample Type: Grab (G)	EPA 8260 PAH 3375	EPA 8270 CP-51 ONLY	8) # of Bottles: None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:	9) Comments
011	MW A	GW	2/7/19	8:00		✓	✓						2				
012	B1GW			9:40			✓						2				
013	B2GW			10:15			✓	✓	2				2				
014	B3GW			10:40			✓	✓	2				2				
015	B4GW			11:00			✓	✓	2				2				
016	B5GW			1:40			✓						2				
017	B6GW			2:45			✓	✓	2				2				
018	B7GW		2/8/19	10:00			✓						2				
019	B8GW			2:15			✓						2				
020	B9GW	▼	▼	2:00	▼	▼	✓						2				

10) Relinquished by:	Accepted by:	Date	Time
		2/11/19	14:23

11) Sampler (print name): FRANK GALDUN Date: 2/8/19

Additional Notes

Comments, Notes, Special Requirements, HAZARDS

Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):
- [ ] BN or BNA (8270D SIM)
- [ ] VOC (8260C SIM or 8011)
- [ ] SPLP (BN, BNA, Metals)
- [ ] 1,4 Dioxane

For NJ LSRP projects, indicate which standards need to be met:
- [ ] NJDEP GWQS
- [ ] NJDEP SRS
- [ ] NJDEP SPLP
- [ ] Other (specify):

Check if applicable:
- [ ] Project-Specific Reporting Limits
- [ ] High Contaminant Concentrations
- [ ] NJ LSRP Project (also check boxes above/right)

Cooler Temperature: 3.1

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Internal use: sampling plan (check box) HC [ ] or client [ ] FSP#

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CHAIN OF CUSTODY RECORD

Project # (Lab Use Only): 9021105

3) Reporting Requirements (Please Circle)

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When Available:	Summary	NJ Hazsite
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3 Business Days (50%)*	[ ] NJ [ ] NY	EQuIS:
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5 Business Days (25%)	NJ Full / NY ASP CatB	[ ] NYDEC
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Other:		Other: PDF

* Expedited TAT Not Always Available. Please Check with Lab.

Customer Information

1a) Customer: GFF LLC
Address: 38 Nokomis Ave
Lk Hiawatha, NJ
1b) Email/Cell/Fax/Ph: frankg4@optonline.net
1c) Send Invoice to:
1d) Send Report to: F Galdun

Project Information

2a) Project: 22-01 Queens Plaza North
Long Island City, NY
2b) Project Mgr: F Galdun
2c) Project Location (City/State):
2d) Quote/PO # (If Applicable):

FOR LAB USE ONLY ↓

Batch # AD09023

===> Check If Contingent ===>

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OT - Other (please specify under item 9, Comments)

7) Analysis *(specify methods & parameter lists)*

<=== Check If Contingent <===

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample Date	6) Sample Time	Sample Type: Composite (C)	Sample Type: Grab (G)	8) # of Bottles: None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:	9) Comments
021	BHOGW	GW	2/8/19	3:00		G					2				

10) Relinquished by: [signature] Accepted by: [signature] Date: 2/11/19 Time: 14:24

11) Sampler (print name): FRANK GALDUN Date: 2/8/19

Additional Notes

Comments, Notes, Special Requirements, HAZARDS

Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):
- [ ] BN or BNA (8270D SIM)
- [ ] VOC (8260C SIM or 8011)
- [ ] SPLP (BN, BNA, Metals)
- [ ] 1,4 Dioxane

For NJ LSRP projects, indicate which standards need to be met:
- [ ] NJDEP GWQS
- [ ] NJDEP SRS
- [ ] NJDEP SPLP
- [ ] Other (specify):

Check if applicable:
- [ ] Project-Specific Reporting Limits
- [ ] High Contaminant Concentrations
- [ ] NJ LSRP Project (also check h... s above/right)

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Cooler Temperature: 3.1

Internal use: sampling plan (che... r client [ ] FSP#

APPENDIX D:
SITE PHOTOGRAPHS

Photograph 1: View of the Site stockyard looking south from across the intersection of 22nd Street and 41st Avenue. The Site building is visible at far right-background.

Photograph 2: Site building looking north from across the intersection of Queens Plaza North and 23rd Street.

Photograph 3: General view of a portion of the Site stockyard looking north.

Photograph 4: Installation of B3 looking south.

Photograph 5: Typical soil encountered in the borings installed in the stockyard. B1 soils shown.

Photograph 6: Soil encountered n B4, which was installed inside the Site building.

Photograph 7: Interior o the vacant ground floor of the two-story Site building. Installation of B9 shown.

Photograph 8: Open and empty stockyard area at the north side of the Site looking east towards the vacant storage building.